

**CALIFORNIA COASTAL COMMISSION**

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# Tu18c

**STAFF REPORT AND RECOMMENDATION ON  
 COMBINED COASTAL DEVELOPMENT PERMIT AMENDMENT APPLICATION  
 AND CONSISTENCY CERTIFICATION**

**COASTAL DEVELOPMENT PERMIT  
 AMENDMENT APPLICATION NO:** 5-99-282-A1

**RECORD PACKET COPY**

**FEDERAL CONSISTENCY NO:** CC-077-01

**APPLICANTS:** City of Newport Beach  
 County of Orange

**AGENT:** Tony Mellum, Director, Harbor Resources Div.  
 City of Newport Beach

**PREVIOUSLY  
 APPROVED PROJECT:**

Consistency Certification CC-078-99: Maintenance dredging and offshore disposal of up to 20,000 cubic yards per year of suitable dredged material from dock areas between the bulkhead line and project line in Newport Bay.

Coastal Development Permit 5-99-282: Beach nourishment in front of bulkheads and at street end beaches using of up to 20,000 cubic yards a year of suitable dredged material from dock areas between the bulkhead line and project line in Newport Bay.

CC and CDP: Certain areas in lower Newport Bay on the southern side of Balboa and Lido Islands; the areas surrounding Harbor Island and Linda Isle, and Upper Newport Bay were excluded from the project area.

**PROJECT DESCRIPTION:**

Consistency Certification CC-077-01: Expand the area where maintenance dredging may occur to include the southern side of Balboa and Lido Islands; the areas surrounding Harbor Island and Linda Isle, and within Upper Newport Bay in the bulkheaded areas of Dover Shores and Newport Dunes Resort. Allow material dredged from these sites to be disposed of at LA-2 and LA-3, an EPA approved offshore disposal sites.

Coastal Development Permit Amendment 5-99-282-A1: Expand the area where beach nourishment may occur to

include southern side of Balboa and Lido Islands; the areas surrounding Harbor Island and Linda Isle, and within Upper Newport Bay in the bulkheaded areas of Dover Shores and Newport Dunes Resort.

**PROJECT LOCATION:**

Dredging & Beach Nourishment in Newport Bay: Between the bulkhead line and project line, on private and public properties on beaches and within bay waters at street ends and in front of bulkheads in lower Newport Bay on the southern side of Balboa and Lido Islands; the areas surrounding Harbor Island and Linda Isle, and within Upper Newport Bay in the bulkheaded areas of Dover Shores and Newport Dunes Resort, City of Newport Beach, Orange County.

Offshore Disposal: At either LA-2 or LA-3 (EPA approved permanent and interim disposal sites, respectively) located approximately 6 miles offshore southwest of Point Fermin, Los Angeles County and approximately 4 miles southwest of the entrance to Newport Harbor, Orange County, respectively.

**OTHER APPROVALS AND SUBSTANTIVE FILE DOCUMENTS:** See Appendix A

**SUMMARY OF STAFF RECOMMENDATION:**

In May 2000, the Commission approved Coastal Development Permit 5-99-282 and Consistency Certification CC-078-99 which authorized the City of Newport Beach (City) and to dredge certain berthing and boat-launch areas in Newport Bay on an as needed basis with disposal at either an ocean disposal site or on beaches located at street ends or in front of bulkheads. The City had applied to the Corps of Engineers (Corps) for a general permit to authorize these dredging and disposal activities. Pursuant to the federal Coastal Zone Management Act, the Corps' general permit triggered the requirement for a consistency certification. Therefore, the City had requested both a permit (CDP 5-99-282) and a consistency certification (CC-078-99). The coastal development permit was exclusively for the beach nourishment activities authorized by the Corps' permit and functions as a consistency certification for that portion of the project. Meanwhile, CC-078-99 authorized the dredging and offshore disposal described in the Corps' permit.

Due to unresolved issues regarding the quality of sediments at certain locations within the harbor, the City excluded the potential problem areas. Since that time, the City has proceeded with additional testing to more clearly define the location of any contaminated sediment. In addition, testing was undertaken to determine whether the material is suitable for offshore disposal. This additional testing found that only one area, adjacent to the Bayside Village community in the Upper Newport Bay, contains sediment that is unsuitable for aquatic disposal. The City and County are proposing to add the areas where they have determined (with concurrence from the Corps, EPA, and the Commission) that the sediments are suitable for aquatic disposal and to continue to exclude the Bayside Village area from the permit and consistency certification. The County is joining as co-applicant on the permit at this time because some of the areas to be added are within a County tidelands grant. Since the scope of the project has changed through the addition of new areas, an amendment to CDP 5-99-282 and a consistency certification is required (Exhibit 2).

In order to facilitate Commission review of these items, both the coastal development permit amendment application and the consistency certification will be heard at the same time.

The proposed dredging, disposal, and beach nourishment project has the potential to affect water quality, habitat, and sand supply resources of the coastal zone. With respect to the consistency certification, the applicants have modified their project to incorporate the mitigation measures previously agreed upon under CC-078-99. These mitigation measures include: a) exclusion of all areas where elevated contaminant levels remain an issue b) use of all dredge material that is equal to or greater than 80% sand for beach nourishment purposes; c) avoidance of any dredging or disposal activities within 15 feet of any eelgrass bed, and preparation of pre- and post-project surveys of eelgrass areas near dredge sites; d) limitation of the Corps permit, consistency certification, and coastal development permit to a five-year period; e) establishment of a 20,000 cubic yard per year cap on dredge and disposal; f) provision of detailed pre-dredging notification including eelgrass surveys and results from sediment grain size analyses and post-dredging results; and g) agreement to certain dredging and disposal practices to minimize impacts on water quality and avoid impacts to eelgrass. In addition to the mitigation measures which were previously agreed upon, the applicants have also verbally agreed to the following additional mitigation measures: preparation of pre-construction *Caulerpa taxifolia* survey and agreement to halt development if *Caulerpa* is discovered; an agreement to avoid all dredging and beach nourishment activities in the Upper Newport Bay between April 1 and September 30; and an agreement to provide proof of authorization to proceed with development from the California State Lands Commission and any other landowner prior to the commencement of dredging. Provided staff receives written confirmation to the above described agreements prior to the hearing, Staff is recommending that the Commission concur with a consistency certification.

Staff is also recommending that the Commission approve the proposed amendment to CDP 5-99-282 with conditions that carry forward previously imposed conditions regarding compatibility of the dredged material with the deposition sites, a requirement to supply pre-project eelgrass surveys and post project surveys as well as maintain a 15 foot setback from eelgrass beds, and a requirement to supply revised plans, such that these conditions apply to the amended project area as well. In addition, Commission staff recommend that the Commission impose conditions clarifying that the permit will expire on May 9, 2005; that the applicant provide proof of authorization to proceed with development from the California State Lands Commission and any other landowner prior to the commencement of beach nourishment; that the applicant avoid beach nourishment in the Upper Newport Bay between April 1 and September 30; that the applicant provide a pre-construction *Caulerpa taxifolia* survey and that no development may commence if *Caulerpa* is discovered in the project area until the presence of the *Caulerpa* is remediated; that the applicant comply with certain construction responsibilities; and that that applicant agree to a risk disclaimer.

Finally, as noted above, the City and County are proposing to exclude the Bayside Village area from the permit and consistency certification. Dredging and beach nourishment in the Bayside Village area will need a separate permit and consistency determination (see Exhibit 2).

## **I. STAFF RECOMMENDATION, MOTION AND RESOLUTION OF APPROVAL OF COASTAL DEVELOPMENT PERMIT AMENDMENT**

Staff recommends that the Commission make the following motion and adopt the following resolution to APPROVE the permit amendment application with special conditions.

### **MOTION**

*I move that the Commission approve the proposed amendment to Coastal Development Permit 5-99-282 pursuant to the staff recommendation.*

Staff recommends a YES vote. Passage of this motion will result in approval of the amendment 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 OF APPROVAL WITH CONDITIONS**

The Commission hereby approves the coastal development permit amendment on the ground that the development as amended and subject to conditions, 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 amendment 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 amended development on the environment, or 2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the amended development on the environment.

## **II. SPECIAL CONDITIONS** (Coastal Development Permit Amendment)

Special Conditions 1 through 6 were imposed under Coastal Development Permit 5-99-282 and are listed in Appendix B of this staff report.

### **7. PRIOR CONDITIONS**

Unless specifically altered by this amendment, all regular and special conditions attached to Coastal Development Permit 5-99-282 remain in effect. All regular conditions and Special Conditions 1, 2, and 3 previously imposed under CDP 5-99-282 apply equally to the amendment and amended project area.

### **8. SCOPE AND TERM OF PERMIT AMENDMENT APPROVAL**

The development authorized by this coastal development permit, as amended, is limited to beach nourishment using only suitable material dredged pursuant to Consistency Determinations CC-078-99 and CC-077-01 and U.S. Army Corps of Engineers Permit No. 98-00296-SDM. Coastal development permit 5-99-282, as amended, does not authorize

any repair, modification, or in-alignment replacement of any boat dock structures (i.e. piers, docks, gangways, and floats) or bulkheads, as described in U.S. Army Corps of Engineers Permit No. 98-00296-SDM. No more than 500 cubic yards of suitable dredge material may be deposited for beach nourishment during any single beach nourishment event. This coastal development permit, as amended, shall expire on May 9, 2005 which is 5 years from the original date of Commission approval which occurred on May 9, 2000.

**9. CALIFORNIA STATE LANDS COMMISSION APPROVAL**

At least 15 business days prior to any beach deposition episode upon land that is not within the City of Newport Beach tidelands grant, the applicants shall provide to the Executive Director a copy of a permit issued by the California State Lands Commission, or letter of permission, or evidence that no permit or permission is required for the development to occur at the proposed disposal site. The applicant shall inform the Executive Director of any changes to the project required by the California State Lands Commission. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit or a new coastal development permit, unless the Executive Director determines that no amendment or new permit is legally required.

**10. LEGAL ABILITY TO UNDERTAKE DEVELOPMENT**

At least 15 business days prior to any beach deposition episode upon land that is not owned in fee title by the City of Newport Beach or County of Orange or upon any land granted to the City or County pursuant to a State Tidelands Grant under which said grant does not specifically authorize the grantee to undertake beach nourishment, the applicant shall submit, for the review and approval of the Executive Director, written documentation demonstrating that it has the legal ability to undertake the proposed development as conditioned herein. The applicant shall inform the Executive Director of any changes to the project required in obtaining such legal ability. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

**11. TIMING OF CONSTRUCTION – SENSITIVE HABITAT AREA**

To avoid adverse impacts on the California least tern (*Sterna albifrons browni*), Belding savannah sparrow (*Passerculus sandwichensis beldingi*), and light footed clapper rail (*Rallus longirostris levipes*), development authorized by this permit shall not occur in Upper Newport Bay (i.e. any area inland of Pacific Coast Highway) between April 1 through September 30 of any year.

**12. PRE-CONSTRUCTION CAULERPA TAXIFOLIA SURVEY**

- A. Not earlier than 90 days nor later than 30 days prior to commencement or re-commencement of any development authorized under this coastal development permit, the applicant shall undertake a survey of the project area and a buffer area at least 10 meters beyond the project area to determine the presence of the

invasive alga *Caulerpa taxifolia*. The survey shall include a visual examination of the substrate.

- 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 five (5) business days of completion of the survey and at least fifteen (15) business days prior to any beach deposition episode, the applicant shall submit 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) or Robert Hoffman, National Marine Fisheries Service (562/980-4043).
- D. Unless the Executive Director otherwise determines, if the survey identifies any *Caulerpa taxifolia* within the project area, the applicant shall submit to the Commission an application for an amendment to this permit requesting authorization to implement measures formulated to avoid impacts that the proposed development might have that could result in the dispersal of *Caulerpa taxifolia*. The applicant shall 1) refrain from commencement of the project until the Commission acts on the amendment application, and 2) upon approval by the Commission of the amendment application, implement the approved mitigation measures in the manner and within the timeframe(s) specified in the Commission's approval.

**13. CONSTRUCTION RESPONSIBILITIES AND DEBRIS REMOVAL**

The permittee shall comply with the following construction-related requirements:

- (a) No construction materials, debris, waste, oil or liquid chemicals shall be placed or stored where it may be subject to wave erosion and dispersion, stormwater, or where it may contribute to or come into contact with nuisance flow;
- (b) Any and all debris resulting from construction activities shall be removed from the site within 10 days of completion of construction;
- (c) No machinery or construction materials not essential for project implementation shall be allowed at any time in the intertidal zone or in the harbor;
- (d) Sediment for beach nourishment shall be placed, not dumped, using means to minimize disturbance to bay sediments and to minimize turbidity;
- (e) If turbid conditions are generated during construction a silt curtain shall be utilized to minimize and control turbidity to the maximum extent practicable;
- (f) All stock piles and construction materials shall be covered, enclosed on all sides, shall be located as far away as possible from drain inlets and any waterway, and shall not be stored in contact with the soil;
- (g) All debris and trash shall be disposed of in the proper trash and recycling receptacles at the end of each construction day;

- (h) The discharge of any hazardous materials into the harbor or any receiving waters shall be prohibited;
- (i) Prior to commencement of beach nourishment the boundaries of any eelgrass meadow within the general project area shall be marked with buoys so that equipment and vessel operators shall avoid damage to eelgrass meadows;
- (j) Barges and other vessels shall be anchored a minimum of 15 feet from any eelgrass bed. Anchors and anchor chains shall not encroach into any eelgrass bed.
- (k) Barges and other vessels shall avoid transit over any eelgrass meadow to the maximum extent practicable. Where transit over eelgrass beds is unavoidable such transit shall only occur during high tides when grounding and potential damage to eelgrass can be avoided.

**14. RISK DISCLAIMER**

- A. By acceptance of this permit, the applicants acknowledge and agree that the site may be subject to hazards from waves and erosion and that the development authorized by this permit is not permanent but is temporary and does not provide long term shoreline protection.
- B. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT AMENDMENT**, the applicants shall submit a written agreement, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition.
- C. At least 15 business days prior to any beach deposition episode pursuant to this permit upon land that is not owned in fee title by the City of Newport Beach or the County of Orange and that is not granted to the City or County pursuant to a State Tidelands Grant the applicant(s) shall submit a written agreement from the fee title land owner upon whose property the deposition will occur, in a form and content acceptable to the Executive Director, incorporating all of the above terms of subsection A of this condition.

**III. STAFF RECOMMENDATION, MOTION AND RESOLUTION OF APPROVAL OF CONSISTENCY CERTIFICATION**

Staff recommends that the Commission make the following motion and adopt the following resolution to CONCUR with the consistency certification.

**MOTION**

*I move that the Commission concur with consistency certification CC-077-01 that the project described therein is consistent with the enforceable policies of the California Coastal Management Program (CCMP).*

Staff recommends a YES vote on the motion. Passage of this motion will result in a concurrence in the certification and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

## **RESOLUTION TO CONCUR IN CONSISTENCY CERTIFICATION:**

The Commission hereby concurs in the consistency certification by the City of Newport Beach and the County of Orange in CC-077-01, on the grounds that the project described therein is consistent with the enforceable policies of the CCMP.

### **IV. FINDINGS AND DECLARATIONS**

The Commission hereby finds and declares:

#### **A. Background, Project Location and Description**

##### **1. Background**

On May 9, 2000, the Commission approved Consistency Certification CC-078-99 for maintenance dredging and offshore disposal of up to 20,000 cubic yards per year of suitable dredged material from dock areas between the bulkhead line and project line in Newport Bay. In addition, the Commission approved Coastal Development Permit 5-99-282 for beach nourishment in front of bulkheads and at street end beaches using of up to 20,000 cubic yards a year of suitable dredged material. Material unsuitable for beach nourishment purposes would be disposed at sea, pursuant to Consistency Certification CC-078-99.

The proposed project raised issues regarding use of dredge spoils for beach nourishment, potential for direct impacts upon eelgrass beds, and the suitability of ocean disposal of some sediment found in the Bay which had elevated contaminant levels. The consistency certification and coastal development permit were approved in accordance with certain agreements and conditions (Appendix B) including: a) due to concerns regarding elevated contaminant levels in bay sediments, exclusion of certain areas in lower Newport Bay on the southern side of Balboa and Lido Islands and areas surrounding Harbor Island and Linda Isle as well as exclusion of the entire Upper Newport Bay from the project area; b) the City would use all dredge material that is equal to or greater than 80% sand for beach nourishment purposes; c) the City would be allowed to use dredge material that was less than 80% sand if the sand content of the dredge material was within 10% of the sand content of the receiver beach; d) the City would not conduct any dredging or disposal activities within 15 feet of any eelgrass bed, and would conduct pre- and post- project surveys of eel areas near dredge sites, and modify the buffer should surveys show an effect from the dredging; e) the City would limit its Corps permit, consistency certification, and coastal development permit to a five-year period; f) the City would not dredge or dispose of more than 20,000 cubic yards of sediment per year under the consistency certification and permit; g) the City would provide detailed pre-dredging notification including eelgrass surveys and results from sediment grain size analyses and post-dredging results; and h) the City agreed to certain dredging and disposal practices to minimize impacts on water quality and avoid impacts to eelgrass.

##### **2. Location**

As will be described more fully below, the applicant is proposing dredging, beach nourishment using suitably sandy material, and offshore disposal of dredge spoils that are unsuitable for beach nourishment within some areas of Newport Bay that were previously excluded from CDP 5-99-282 and CC-078-99. The proposed work would occur on beaches and within bay waters located

between the bulkhead line and project line. The areas to be added under this amendment and consistency certification are in lower Newport Bay on the southern side of Balboa and Lido Islands; the areas surrounding Harbor Island and Linda Isle, and within Upper Newport Bay in the bulkheaded areas of Dover Shores and Newport Dunes Resort, in the City of Newport Beach, Orange County (Exhibits 1 and 2).

Due to continued concerns regarding elevated contaminant levels, the applicants are proposing to continue to exclude an area of the harbor located in Upper Newport Bay located between the Pacific Coast Highway bridge and the Newport Dunes Resort (see Exhibit 2). This 'excluded' area consists of bulkheaded beaches and private docks adjacent to the residential community known as Bayside Village (see the area shaded green in Exhibit 2). In addition, the applicants have not sought approval for dredging and beach nourishment in those bulkheaded dock areas located between the Lido Peninsula and the mainland (see the area shaded yellow in Exhibit 2).

In addition, there are other parts of the Bay which are not a part of this consistency certification and permit. For instance, areas of the harbor where there are no bulkheads and/or docks, such as the shoreline in Upper Newport Bay adjacent to Castaways, the sandy beach surrounding the cove at Newport Dunes, areas adjacent to Shellmaker Island and the area within the Upper Newport Bay Ecological Reserve, are not approved for dredging or beach nourishment under CC-078-99, CC-077-01 or CDP 5-99-282, as amended. The map submitted by the applicant and depicted in Exhibit 2 is intended to fully define the areas to which CC-078-99 and CDP 5-99-282 presently apply (depicted in purple) and to which CC-077-01 and CDP 5-99-282, as amended, would apply.

Also, any offshore disposal would occur at either the LA-2 or LA-3 (EPA approved permanent and interim disposal sites, respectively). These sites are located approximately 6 miles offshore southwest of Point Fermin, Los Angeles County and approximately 4 miles southwest of the entrance to Newport Harbor, Orange County, respectively.

The proposed amendment includes areas of the harbor that are tidelands that were granted either to the City of Newport Beach or the County of Orange by the California State Lands Commission. Therefore, the City of Newport Beach and the County of Orange are co-applicants. The proposed amendment also includes submerged lands that are privately owned such as those lands within the coves at Dover Shores and the interior cove and surrounding channel of Linda Isle. These private lands are owned by homeowners associations. The private land owners were invited to join as co-applicants, but have declined.

### **3. Dredging & Ocean Disposal**

The City of Newport and County of Orange have submitted a consistency certification for maintenance dredging and ocean disposal of suitable material. Pursuant to CC-077-01, maintenance dredging of navigation channels to pre-existing dredge depths of up to 1,000 cubic yards of material per event may be dredged from under private, public, and commercial piers, docks, and floats between the U.S. Bulkhead Line and the U.S. Pierhead Line. The applicants state that the typical individual dredge project is 100 to 500 cubic yards, averaging 200 cubic yards, and occurs within an area approximately 30 feet wide and 80 to 100 feet long (Exhibit 1). Dredge material not suitable for beach nourishment but which is suitable for ocean disposal will be deposited at EPA off-shore disposal sites LA-2 or LA-3 (EPA approved permanent and interim disposal sites, respectively). A maximum of 20,000 cubic yards of suitable dredge materials will be disposed off shore with no more than 1,000 cubic yards of ocean disposed material from any

single dredge site. The total amount of dredging and disposal authorized between CC-078-99 and CC-077-01 and CDP 5-99-282, as amended, shall not exceed a total of 20,000 cubic yards of dredging per year and a cumulative total of 20,000 cubic yards of disposal between beaches or off-shore per year. Any materials not suitable for beach nourishment or ocean disposal would require land disposal. Neither CC-078-99, CC-077-01, or CDP 5-99-282, as amended, authorize land disposal. Any land disposal would require a separate consistency determination and/or coastal development permit, as appropriate. The applicants have modified their consistency certification (CC-077-01) to address Coastal Act issues. The modifications are as follows:

- a. Removal of the Bayside Village area from the project, where sediment quality is of a concern. The areas where dredging may or may not occur under this consistency certification are fully defined in the map in Exhibit 2.
- b. The applicants will not dispose of sediment that is equal to or greater than 80% sand retained on a standard #200 sieve at any ocean disposal site.
- c. The applicants will not conduct any dredging or disposal activities within 15 feet of any eelgrass bed, conduct pre- and post- project surveys of eel areas near dredge sites, and modify the buffer should surveys show an effect from the dredging.
- d. The applicants will not conduct any dredging or disposal activities in the Upper Newport Bay (i.e. any part of the Bay inland of Pacific Coast Highway) between April 1 through September 30 of any year.
- e. Not earlier than 90 days nor later than 30 days prior to commencement or re-commencement of any development authorized under this consistency certification, the applicants shall undertake a survey of the project area and a buffer area at least 10 meters beyond the project area to determine the presence of the invasive alga *Caulerpa taxifolia*. The survey shall include a visual examination of the substrate. 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. Within five (5) business days of completion of the survey and at least fifteen (15) business days prior to any dredging episode, the applicants shall submit the survey for the review and approval of the Executive Director; and to the Surveillance Subcommittee of 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) or Robert Hoffman, National Marine Fisheries Service (562/980-4043). Unless the Executive Director otherwise determines, if the survey identifies any *Caulerpa taxifolia* within the project area, the applicants shall seek authorization to implement measures formulated to avoid impacts that the proposed development might have that could result in the dispersal of *Caulerpa taxifolia*. The applicants shall 1) refrain from commencement of the project until the Commission acts on the request for authorization, and 2) upon authorization by the Commission, implement the approved mitigation measures in the manner and within the timeframe(s) specified in the Commission's authorization.
- f. The applicants will limit their Corps' permit, consistency certification, and coastal development permit to a five-year period to expire on May 9, 2005.
- g. The applicants will not dredge, pursuant to this consistency certification (CC-077-01) and previously approved Consistency Certification CC-078-99, more than a combined total of 20,000 cubic yards of sediment per year.
- h. Prior to any dredging episode that is not within the City of Newport Beach tidelands grant, the applicants shall provide to the Executive Director a copy of a permit issued by the California State Lands Commission, or letter of permission, or evidence that no permit

- permission is required for the dredging to occur at the proposed site. The applicants shall inform the Executive Director of any changes to the project required by the California State Lands Commission. Such changes shall not be incorporated into the project until the applicant obtains a new consistency certification unless the Executive Director determines that no new consistency certification is legally required.
- i. Prior to any dredging episode upon land that is not owned in fee title by the City of Newport Beach or County of Orange or upon any land granted to the City or County pursuant to a State Tidelands Grant under which said grant does not specifically authorize the grantee to undertake beach nourishment, the applicants shall submit, for the review and approval of the Executive Director, written documentation demonstrating that it has the legal ability to undertake the proposed development. The applicants shall inform the Executive Director of any changes to the project required in obtaining such legal ability. Such changes shall not be incorporated into the project until the applicant obtains a new consistency certification, unless the Executive Director determines that no new consistency certification is legally required.
  - j. The applicants will provide the Commission staff with notice of the proposed project at least 15 business days before commencement of any dredging project. This notice will include the following:
    - i. A vicinity map showing the exact location, including latitude and longitude coordinates, of the individual dredging project and the maximum dredging depth. If beach disposal is proposed, the vicinity map shall show the area of the beach to be replenished and detailed site plans of the disposal areas. All vicinity maps shall be drawn to scale.
    - ii. Results of a survey to determine the presence of eelgrass within or adjacent to the proposed dredging area that could be affected directly or indirectly by the proposed activity. The results of the eelgrass survey shall include the person conducting the survey, when and how the survey was conducted, and the results of the survey. The eelgrass survey shall be done in accordance with the Southern California Eelgrass Mitigation Policy, adopted July 31, 1991, as amended.
    - iii. Results of a survey of the project area and a buffer area at least 10 meters beyond the project area to determine the presence of *Caulerpa taxifolia*. 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.
    - iv. Results from physical testing conducted on a composite of at least three cores taken at different locations within the proposed dredging area for each project. Additionally, if appropriate, at least one core from the receiving beach. The core depth shall be equivalent to the proposed dredging depth plus any proposed over-dredging. Grain size data shall be reported to the nearest 1% for sand, silt, and clay consistent with procedures defined in: "Procedures for Handling and Chemical Analysis of Sediment and Water Samples," by Russell H. Plumb (1981), Corps Technical Report EPA/CE-81-1, pages 3-28 to 3-47.
    - v. A detailed description of the dredging work at each location authorized by this permit. Description of the dredging work shall include the dredging and disposal procedures for all material proposed for either beach replenishment or ocean disposal.
    - vi. A schedule showing when the individual dredging project is proposed to begin and to end.
    - vii. Evidence showing that the area proposed for dredging has been previously existed at depths similar to the proposed project, and therefore, the proposed project constitutes maintenance dredging.

- viii. For any dredging that is not within the City of Newport Beach tidelands grant, a permit, letter of permission, or official written evidence that no permit or permission is required for the dredging to occur at the proposed site from the California State Lands Commission.
- ix. For any dredging episode upon land that is not owned in fee title by the City of Newport Beach or County of Orange or upon any land granted to the City or County pursuant to a State Tidelands Grant under which said grant does not specifically authorize the grantee to undertake dredging, the applicants shall submit written documentation demonstrating that it has the legal ability to undertake the proposed dredging.
- k. The City and County will not commence the dredging until it receives notice from the Coastal Commission staff stating that the activity is consistent with the approved coastal development permit and consistency certification.
- l. No water or dredged material placed in a disposal barge or scow shall be allowed to flow over the sides or hinge points of such vessels during dredging, transportation, or disposal operations. Water may only flow over the hinge points, if filter fabric is installed across the hinge to minimize the introduction of sediment into Newport Bay. The City will determine the level that a disposal barge or scow can be filled to prevent any dredged material or water from spilling over the sides at the dredging site or during transit from the dredging site to the disposal site. No disposal barge or scow shall be filled above this predetermined level.
- m. Dredged material may only be disposed at the LA-3 or LA-2 ocean disposal sites without further testing, if the following conditions have been met:
  - i. The dredged material meets the exclusionary criteria at 40 CFR 227.13(b)(1), (2), or (3). (see Exhibit 10)
  - ii. The volume of dredged material that is proposed for ocean disposal does not exceed 1,000 cubic yards for a completed individual dredging project.
  - iii. There are no known existing or historical sources of pollution that may have caused the proposed dredged material to be contaminated.
- n. The City will submit a post-dredging report to the Commission staff for each completed dredging project. That report will document compliance with all of the requirements of the coastal development permit and consistency certification. The post-dredging report will be sent within 45 days after completion of the dredging project. The post-dredging report will include the following information for each individual dredging project:
  - i. Permit and project number.
  - ii. Start date and completion date.
  - iii. Location and total volume of dredged material disposed at LA-3, LA-2, a beach replenishment site, and/or an approved inland disposal site.
  - iv. Mode of dredging and transportation, and method and frequency of disposal.
  - v. Form of dredged material (i.e., slurry or cohesive).
  - vi. Procedure and location where the disposal barge or scow was washed.
  - vii. Post-project surveys of eelgrass beds potentially affected by the dredging

#### **4. Beach Nourishment**

The coastal development permit, as amended, would only be for the deposition of suitable dredged material for beach nourishment. The beach nourishment is a non-exempt form of development given the attendant use of mechanized equipment on a beach. The actual dredging

activity, which is maintenance dredging of less than 100,000 cubic yards in a one-year period, is exempt from coastal development permit requirements.

Suitable material is proposed to be pumped from a hydraulic suction dredge via pipeline to deposition sites on the beaches present at public street ends which face upon Newport Bay (Exhibit 1). In addition, suitable dredged material would be deposited in front of the bulkhead at or near the property where dredging would occur. As proposed, suitable dredged material would be deposited for beach nourishment in the near shore area, or above the mean high tide line. Where necessary, the sand would be spread mechanically to evenly distribute the sand over the deposition area. The maximum quantity of material that would be disposed at any one time and any single site would be 500 cubic yards. In addition, the applicants would not conduct any disposal activities within 15 feet of any eelgrass bed.

The applicants have provided a baseline evaluation of the suitability of the dredge materials for beach nourishment. This evaluation is contained within the report titled *Results of Physical, Chemical, and Bioassay Testing of Sediments Collected from Newport Bay* by MEC Analytical Systems, Inc. of Carlsbad, California, dated April 28, 2001. This report generally indicates that dredge materials within Newport Bay in the proposed project area are suitable for beach nourishment from a grain size suitability and chemical standpoint. These issues will be discussed in more detail below.

## **B. Status Of Local Coastal Program**

The standard of review for federal consistency certifications is the policies of Chapter 3 of the Coastal Act, and not any Local Coastal Program (LCP) of the affected area. If the Commission certified the LCP and incorporated it into the California Coastal Management Program (CCMP), the LCP can provide guidance in applying Chapter 3 policies in light of local circumstances. If the Commission has not incorporated the LCP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. There is presently no certified LCP for the City of Newport Beach. Therefore, the Commission has not incorporated any LCP for the City of Newport Beach into the CCMP.

## **C. Applicant's Consistency Certification**

The City of Newport Beach and County of Orange have certified that the proposed project is consistent with the California Coastal Management Program.

## **D. Chapter 3 Policy Analysis of Amendment and Consistency Certification**

### **1. Water Quality & Biological Resources**

The Coastal Act protects water quality resources of the coastal zone. Section 30231 of the Coastal Act provides, in part, that:

*The biological productivity and the quality of coastal waters ... appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained....*

One of the potential adverse effects from dredging, ocean disposal, and beach nourishment activities is the resuspension and relocation of contaminants. Dredge material can contain elevated levels of heavy metals, pesticides, organics, and other pollutants. These contaminants usually are bound to finer grain material such as clay and silt. Pursuant to the requirements of the Corps and under the direction of the U.S. Environmental Protection Agency (EPA), the applicants conducted physical, chemical, and biological tests on the sediments within the proposed dredging areas of Newport Bay.

As noted previously, there were four areas of the harbor located at Lido Island, Bay Front, Linda Isle, and areas in Upper Newport Bay where chemical testing of sediment cores showed elevated contaminant levels. Contaminants of potential ecological concern (COPECS) included heavy metals, chemical analogues of the pesticide DDT, and polynuclear aromatic hydrocarbons (PAHs) (i.e. chemicals formed during the incomplete burning of coal, oil, gas and other organic substances)<sup>1</sup>. The data on the sediment chemistry was not conclusive enough for the Commission to determine that the sediment was suitable for ocean disposal or beach nourishment purposes. In such situations, federal dredging standards require the applicant to conduct bioassay and bioaccumulation tests before the Corps can authorize ocean disposal of this material or use of the material for beach nourishment. The Commission generally uses the federal standards and guidelines for evaluating the suitability of sediment for aquatic disposal. Based on concerns from Commission staff, EPA, and the Corps, the applicant excluded those areas from CDP 5-99-282 and Consistency Certification CC-078-99.

Additional testing of sediments from the areas of concern was conducted by the applicants<sup>2</sup>. This additional testing included a wider array of sampling sites within the areas of concern and bioassay testing. The testing found that the concentration of COPECS in the sediment from the western sides of Lido Island and Balboa Island were low or undetectable and that no toxicity was associated with these sediments. In this case, the term 'low' concentration means that the concentrations measured were lower than the concentration of contaminants measured at a reference site where the concentration of contaminants is expected to be typical of 'background' levels present throughout the environment. Therefore, since the concentration of contaminants at the test sites was low or undetectable, these sediments are appropriate for ocean disposal, or beach nourishment (provided the material meets the physical criteria for beach nourishment).

Meanwhile, sediment from sites tested at Linda Isle did have elevated levels of contaminants. In this case, the term 'elevated' means that the concentrations measured were significantly higher than the concentration of contaminants measured at a reference site where the concentration of contaminants is expected to be typical of 'background' levels present throughout the environment. The contaminants encountered included heavy metals, DDT analogues and PAH. However, bioassay testing showed that the contaminants observed were '...not sufficiently bioavailable to result in prey concentrations that are unprotective of the environment.'

Finally, sites tested within Upper Newport Bay were found to have variations in the array and concentration of contaminants. At most sites, including those at the Dover Shores and Newport Dunes Resort, preliminary testing indicated that there were elevated levels of pesticides, metals and PAHs. However, bioassay testing showed that the concentration of contaminants in the water

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<sup>1</sup> COPECS is a term of art used in the field of chemical testing

<sup>2</sup> *Results of Physical, Chemical, and Bioassay Testing of Sediments Collected from Newport Bay* by MEC Analytical Systems, Inc. of Carlsbad, California, dated April 28, 2001

column after dumping the material dredged from these sites would meet the "Limiting Permissible Concentration" (LPC) (which is the concentration of contaminants after mixing that will not exceed applicable water quality standards) established by the U.S. Environmental Protection Agency and Corps for the offshore disposal site. Only one area, located between Pacific Coast Highway and the Newport Dunes Resort (adjacent to the Bayside Village community)(see Exhibit 2), would not meet the required standards. The applicants are proposing to exclude the Bayside Village area and would seek separate approvals for any dredging and disposal in that area.

The applicants are proposing to use dredged sediment for beach nourishment purposes. Specifically, the applicants are proposing to use any sediment comprised of 80% or more sand for beach nourishment. In addition, where the dredged sediment has a sand content that is less than 80% sand but where the sand content of the dredged sediment and receiver beach are within 10% of one another the applicants are proposing to use such dredged sediment for beach nourishment purposes. As noted above, some of the sediment to be dredged is known to have elevated chemistry levels. Testing has demonstrated that these contaminants are not biologically available and that the material is suitable for ocean disposal. The U.S. EPA and the Corps have affirmatively stated that ocean disposal is acceptable (Exhibit 8). In addition, the U.S. EPA and Corps have stated that the any dredged sediment that is comprised of 80% or more sand must be used for beach nourishment. However, these agencies have not provided written comment on the suitability of using dredged sediment for beach nourishment in cases where the sediment is comprised of less than 80% sand but is within 10% of the sand content of the receiver beach. The suitability of these sediments with lower sand content for beach nourishment requires further analysis because sediment with lower sand content has a higher probability of harboring contaminants and because some of the sediments to be used for beach nourishment may originate from the Upper Newport Bay where testing showed that contaminants may be of concern.

Dredged sediments are composed of silt, clay and sand particles. Contaminants, such as those described above, generally are associated with sediments that are higher in silt or clay content and not sand content. Generally, this occurs because silt and clay particles have larger surface areas to which contaminants may attach. Therefore, where the sediment is composed of more than 80% sand, the likelihood that the sediment would be contaminated is extremely low. However, where possible and where there is a match between dredge sediment and receiver beach, the applicant is proposing to use sediment having less than 80% sand (i.e. sediment composed of more silt and clay). In these instances, the probability that contaminants may be present increases.

Some level of contamination by pesticides, heavy metals, and other chemicals is pervasive in the environment. Therefore, any contaminants present in the dredged sediment are very likely to be present in the surrounding environment. In cases where the receiver beach has a higher composition of silt and clay, if there are any contaminants in the dredged sediment, those same contaminants are also likely to be present in the sediment that is already on the beach. Therefore, the use of dredged sediment to nourish that beach would not change the level of human exposure or other biological resources to contaminants.

Also, it should be noted that the sediment tests are very sensitive. The effects of exposure are measured by using organisms that live in and ingest the sediment. These tests have shown that mortality of these organisms exposed to sediments from the dredge sites is not statistically significantly different than the mortality of organisms exposed to a reference site. As is noted

above, the U.S. EPA and Corps have found that the sediment to be dredged from the lower Newport Bay is suitable for ocean disposal. In addition, even though some elevated levels of contaminants were found at all the sites tested in the Upper Newport Bay, the sediments from all of these site, except for the Bayside Village area (which is excluded from the applicants request), is suitable for ocean disposal. Given that the sediments are suitable for ocean disposal and understanding the sensitivity of the tests which determined that ocean disposal is acceptable, it is clear that use of these sediments for beach nourishment would not have any significant adverse effect upon biological resources on the beach.

The additional testing has shown that the concentration of contaminants within sediment at all-but-one of the previously excluded areas is sufficiently low enough that those sediments may be disposed offshore or used for beach nourishment without adverse environmental effects. Therefore, the applicants are requesting authorization to dredge and nourish beaches within these areas as described above. The Corps, U.S. Environmental Protection Agency, California Department of Fish and Game, National Marine Fisheries Service and Regional Water Quality Control Board have concurred with this request (see Exhibits 4 through 8). In addition, the applicant is proposing to limit the term of approval of the dredging, disposal and beach nourishment to expire in May 2005. If renewal of approval is sought, additional chemical testing at that time would identify whether sediment quality has changed. In order to implement this proposal for the beach nourishment portion of the project, the Commission imposes Special Condition 8. The Commission finds that the request, as proposed and conditioned, is consistent with Section 30231 of the Coastal Act.

Meanwhile, the applicants are continuing to propose to exclude the use of sediment from the area adjacent to Bayside Village (Exhibit 2). Accordingly, neither dredging nor use of dredge spoils from these areas for beach nourishment are authorized under the consistency certification or Coastal Development Permit 5-99-282, as amended. Dredging or use of dredge spoils from the area adjacent to Bayside Village for beach nourishment requires a separate consistency determination and coastal development permit.

Finally, the applicants have modified their project to minimize the potential for overflow of the barge or scow. This measure will reduce the turbidity impacts to the water column. The Commission finds that with these measures, the proposed project will not affect water quality resources of the coastal zone, and therefore, the project is consistent with the Water Quality policy of the CCMP.

However, in order to assure that water quality protection procedures are in place for the beach nourishment portion of the project, the Commission imposes Special Condition 13 which requires the applicants to implement turbidity controls during beach nourishment events, when necessary. In addition, Special Condition 13 requires the applicants to comply with other water quality best management practices in order to protect water quality. Therefore, as conditioned, the Commission finds the proposed beach nourishment consistent with Section 30231 of the Coastal Act.

## **2. Dredging and Fill of Coastal Waters**

The proposed dredging, offshore disposal and beach nourishment project includes the dredging of sediment from bay waters and either offshore aquatic disposal or placement of dredged material on the beach and below the mean high tide line (MHTL). The extraction of sediment from bay

waters is dredging. In addition, the placement of any material below the MHTL is fill as defined by Section 30108.2 of the Coastal Act. Section 30233 of the Coastal Act allows dredging and filling of coastal waters or wetlands only where feasible mitigation measures have been provided to minimize adverse environmental effects, and for only the eight uses listed in Section 30233 of the Coastal Act, as follows:

*(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

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

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

*(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and necessary support service facilities, shall not exceed 25 percent of the degraded wetland.*

*(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*

*(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*

*(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*

*(7) Restoration purposes.*

*(8) Nature study, aquaculture, or similar resource dependent activities.*

*(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.*

In this case, the proposed dredging and offshore disposal would occur in order to maintain existing and/or restore previously dredged depths in existing navigational channels, turning basins, and vessel berthing and mooring areas. Meanwhile, fill would result from the restoration of beaches where erosion has narrowed the prior width of the beach. The proposed development includes the

dredging and either offshore disposal or beach nourishment of up to 20,000 cubic yards of sediment permit year. The volume of dredged material that is proposed for ocean disposal would not exceed 1,000 cubic yards for a completed individual dredging project. In addition, no more than 500 cubic yards of material is proposed to be disposed on the beach at any single location. This proposed dredging and fill is allowable pursuant to Sections 30233(a)(2), 30233(a)(7) and 30233(b) of the Coastal Act.

Section 30233 of the Coastal Act also requires that the proposed dredging and fill of coastal waters be the least environmentally-damaging feasible alternative including the use of feasible mitigation measures to reduce adverse environmental effects. The City has proposed measures to ensure that the proposed project is the least environmentally-damaging feasible alternative and has included mitigation measures to avoid adverse effects on the marine environment.

The proposed dredging would only occur in previously dredged areas to restore previously dredged depths. There are no feasible alternatives to the proposed dredging which would restore the berthing areas at the subject sites and be less environmentally damaging. The proposed dredging would be minimized to a maximum of 1,000 cubic yards per dredging event. The applicants are proposing measures to minimize impacts from the dredging including avoiding eelgrass beds and avoiding dredging in Upper Newport Bay during the breeding season for California least tern, Belding savannah sparrow and light footed clapper rail. Therefore, the proposed dredging is the least environmentally damaging feasible alternative.

The City considered at least three options for disposal of beach suitable material. The first option was the no project alternative. Under the no project alternative, no disposal would occur. Without a site to dispose of dredge material, dredging within Newport Bay could not occur. Without dredging, boat slips within the harbor would become silted and unusable. Silting of boat slips within the harbor would decrease the usefulness of the harbor for recreation oriented boating. Accordingly, the no project alternative would have an adverse impact upon boating related uses of coastal waters. In addition, without dredging, public beaches within the harbor could not be nourished with needed beach quality sand and would continue to erode.

The second option was to dispose of all dredge spoils at an upland location. Disposing beach quality dredge materials at an upland location would remove those materials from the shoreline sand supply. Therefore, this alternative would have an adverse impact on shoreline sand supply.

The third option is the proposed project which results in the use of beach quality dredge material for beach nourishment purposes. This option would avoid any adverse impacts upon shoreline sand supply by re-contributing beach suitable material toward beach nourishment projects. Under this alternative, the applicants are proposing several mitigation measures to mitigate any adverse effects the project may have upon water quality and sensitive marine resources. These measures include avoiding the use of sediment dredged from areas where sediment testing indicates there are elevated contaminant levels. The area to be avoided is located next to the Bayside Village community between Pacific Coast Highway and the Newport Dunes Resort (Exhibit 2). Avoiding the use of these materials will prevent the release of contaminants to the water column. In addition, avoiding activities in Upper Newport Bay during the breeding season will prevent impacts upon the Belding savannah sparrow, light footed clapper rail and California least tern which forage and/or nest in Upper Newport Bay. In addition, the City and County are proposing to avoid any disposal activities within 15 feet of any eelgrass bed. Accordingly, impacts to eelgrass will be avoided. The City and County are also proposing to conduct testing of any sediments planned for

beach nourishment to ensure compatibility of that sediment for beach nourishment purposes. These measures will avoid impacts to sand supply, water quality, and sensitive habitat resources. Additionally, the City and County have limited beach nourishment to 500 cubic yards per project, with a maximum total of 20,000 cubic yards of beach nourishment per year. By limiting the scope of this beach nourishment project, the applicant's proposal will not have significant impacts on marine or estuarine waters. The Commission finds that the proposed project is an allowable use and is the least environmentally-damaging feasible alternative which includes feasible mitigation measures. Therefore, the Commission finds the proposed project is consistent with Section 30233(a) of the Coastal Act.

### 3. Sand Supply

In regards to beach replenishment, Section 30233(b) of the Coastal Act requires that suitable dredge materials be transported to appropriate beaches for such purposes.

Section 30233(b) of the Coastal Act states, in relevant part:

*...Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.*

The applicant is proposing to use all beach suitable dredge material for beach nourishment purposes. In order to ensure that the materials proposed for beach nourishment are suitable for such purposes, the applicant has proposed to perform sediment testing to evaluate the physical characteristics of the materials. In order to ensure that such testing adequately characterizes and evaluates the physical characteristics of the proposed beach nourishment materials, the Commission previously imposed Special Condition 1 under Coastal Development Permit 5-99-282 (see Appendix B). Special Condition 1 requires the applicants to perform testing consistent with testing methods previously approved by the Commission contained within the document "Procedures for Handling and Chemical Analysis of Sediment and Water Samples," by Russell H. Plumb (1981), Corps Technical Report EPA/CE-81-1, pages 3-28 to 3-47. Special Condition 1 also requires that grain size tests be conducted on a composite of at least 3 cores taken at different locations within the proposed dredging area for each project. The core depth shall be equivalent to the proposed dredging depth plus any over-dredging. Also, grain size data shall be reported to the nearest 1% for sand, silt, and clay consistent with the above referenced document. Since the grain size of bay sediments can vary over even a small area, the Commission found that at least 3 cores are necessary to adequately characterize the grain size of the sediments being used for beach nourishment. In addition, Special Condition 1 requires the applicant to obtain and test the sediment grain size from at least 1 core from the receiver beach when the material which will be used for beach nourishment is less than 80% sand.

In order to ensure that only beach quality materials are used to nourish the beaches, Special Condition 1 of CDP 5-99-282 requires that material utilized for beach nourishment shall have a sand content that is either equal to or greater than 80% sand or be within 10% of the sand content of the receiver beach. Normally, the Commission has required that beach nourishment materials contain equal to or greater than 80% sand. Special Condition 1 allows the placement of beach nourishment materials consisting of greater than or equal to 80% sand without the need to test the grain size of the receiver beach. However, Special Condition 1 also allows the placement of beach nourishment materials having less than an 80% sand content on a beach if the sand content of the nourishment material and receiver beach are within 10% of one another. A receiver beach core

sample and grain size analysis is necessary to confirm that the nourishment material falls within these parameters. While allowing the use of this 10% deviation is not the Commission's standard practice, in this instance, the beach nourishment sites are harbor locations and there is expected to be a higher component of "fines" in the dredge materials and receiver beach sites. Therefore, in this instance, a match of the dredge and receiver sites within a 10% deviation is acceptable. The Commission imposes Special Condition 7 to clarify that Special Condition 1 applies equally to the previously approved area and the areas to be added under this amendment.

Furthermore, the Commission is accepting the chemical testing and analysis completed to date for the proposed project. As part of the application process, the City and County completed a detailed sampling program of the harbor. Based on this testing, the applicants have excluded the Bayshore Village area (see Exhibit 2) from the project description due to elevated sediment chemistry. In this proposal, given the absence of industrial development in the area, the representative sampling is being accepted as sufficient without further investigation required for individual sites. As is discussed more fully elsewhere in these findings, the City and County are proposing a five (5) year duration for the consistency certification and permit, to expire in 2005. It is expected that any pollutants which may be become deposited in the sediment during the proposed authorization period would be generated by non-point sources and such urban runoff. The concentration of pollutants would not be expected to significantly change over the course of the five year authorization.

The proposed use of dredged material for beach nourishment will partially mitigate the ongoing erosion of the City's harbor beaches, helping to protect recreational use of the beach and existing structures along the beach. Section 30233(b) of the Coastal Act encourages the use of dredged material for beach replenishment. As proposed and conditioned, the project will not have any adverse impacts on local sand supply. Therefore, the project is consistent with Section 30233(b) of the Coastal Act.

#### **4. Sensitive Habitats and Resources: Eelgrass, California Least Tern, Belding Savannah Sparrow & Light Footed Clapper**

Section 30230 of the Coastal Act requires that marine resources shall be maintained, enhanced, and where feasible, restored. 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 30230 of the Coastal Act requires that marine resources be protected and that the use of the marine environment be carried out in a manner that will sustain the biological productivity of coastal waters. The proposed dredging and deposition of material above and below the mean high tide line may impact marine resources. Therefore, mitigation measures are necessary to protect the biological productivity of coastal waters.

In addition, Section 30233(b) of the Coastal Act states:

*Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats...*

Newport Bay contains habitat for a diverse variety of wildlife. For instance, there is salt marsh, hardscape habitat, tidal flats, sandy beach, subtidal mud seafloor, and open water habitat at various locations throughout the bay. Eelgrass and other sensitive vegetation are present in some locations. In addition, several sensitive and endangered bird species nest, breed and forage in these habitat areas. Upper Newport Bay is especially rich with sensitive habitat and wildlife. For instance, California least tern, Belding savannah sparrow, and light-footed clapper rail nest and breed in the Upper Newport Bay and then forage in the upper and lower bay.

The applicant has prepared a biological impact assessment<sup>3</sup> for the proposed project. The study indicates that eelgrass (*Zostera marina*) is present within Newport Bay. Eelgrass typically grows at depths ranging from 0 feet to -15 feet Mean Lower Low Water. However, in some areas of Newport Harbor, such as along Balboa Island, eelgrass occurs at shallower depths. Eelgrass is generally found along the bulkheads and along sandy shorelines within the harbor. However, in locations where the bottom is shaded by docks and moored vessels, eelgrass does not grow due to inadequate light levels.

There are eelgrass beds which have been identified within the expanded project area (Exhibit 3). These eelgrass beds are located within the bay on the south and southwest sides of Balboa Island, around Harbor Island and around Linda Isle.

Eelgrass is considered worthy of protection because it functions as important habitat for a variety of fish and other wildlife, according to the Southern California Eelgrass Mitigation Policy (SCEMP) adopted by the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Game (CDFG). For instance, eelgrass beds provide areas for fish egg laying, juvenile fish rearing, and water fowl foraging. Sensitive species, such as the California least tern, a federally listed endangered species, utilize eelgrass beds as foraging grounds.

Eelgrass beds and foraging California least tern can be adversely affected from increased turbidity in the water column caused by the proposed dredging and beach nourishment project. The tern uses sight to forage for small fish near the surface of the water. The increase in turbidity can interfere with this sight-based feeding. During nesting season, the terns must forage close to their nesting area so that they can bring food to their fledglings.

In order to minimize impacts caused by turbidity, the applicants are proposing to limit the size of each dredging and beach nourishment event and the total quantity of dredging and beach nourishment to occur yearly. For instance, the applicants are proposing to dredge no more than 1,000 cubic yards of sediment at any single dredging event. In addition, the applicant is proposing to limit beach nourishment to 500 cubic yards for any nourishment site. Finally, the applicants are

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<sup>3</sup> *Biological Impact Assessment, Newport Bay Maintenance Dredging Project, City of Newport Beach, California* by Coastal Resources Management of San Clemente, CA, dated December 6, 2001.

proposing no more than 20,000 cubic yards of dredging and beach nourishment per year<sup>4</sup>. By limiting the dredging and beach nourishment to small events, the area of potential impact is also smaller. Accordingly, wildlife foraging for food in the water column would not need to go a significant distance to avoid areas that are affected by turbidity. Furthermore, the short duration of the events (typically a single day) would minimize the period of time that any one area would be impacted by turbidity. Finally, the 20,000 cubic yard per year cap ensures that the total area of the harbor which may be impacted by dredging and beach nourishment during any year is cumulatively small. In order to assure that turbidity impacts are eliminated, the Commission previously imposed Special Condition 4 under CDP 5-99-282. In order to clarify that the caps described apply to the amended project, the Commission imposes Special Condition 8.

In addition, without appropriate precautions, the dredging and beach nourishment may adversely affect eelgrass habitat. The potential impacts include direct loss of eelgrass beds by dredging and beach nourishment within the eelgrass habitat as well as degrading the quality of that resource by increasing turbidity in the water column. Direct losses to eelgrass beds could occur by the dredging itself or through burial from beach nourishment. In addition, construction equipment could scar the eelgrass bed through contact from the dredging vessel, dragging chains and anchors through the eelgrass bed and from propeller wash. The increase in suspended sediments caused by dredging and beach nourishment could decrease light penetration, deter small fish from using the protective habitat, and interfere with bird foraging.

The nesting, foraging, and breeding activities of the California least tern, Belding's savannah sparrow and light-footed clapper rail could also be directly affected by dredging and beach nourishment. Noise from construction equipment could disturb the birds. In addition, the dredging and beach nourishment could directly impact areas where these species forage. These impacts would only occur in the Upper Newport Bay where least tern, sparrow, and clapper rail nest and breed. These species forage in the lower bay too. However, the impact would only occur in the upper bay near nesting sites because these species need to forage near their nests during breeding season. Foraging within the lower bay would be infrequent to non-existent during the breeding season due to the distance between the nests in the upper bay and the foraging areas of the lower bay.

In order to avoid these impacts, the applicants have consulted with the U.S. Fish and Wildlife Service (Service), National Marine Fisheries Service (NMFS), and the California Department of Fish and Game (Exhibits 5-7). These agencies have recommended measures to avoid impacts to eelgrass and tern, clapper rail and sparrow habitat. These measures include limiting the dredging and beach nourishment to the lower bay, south of the Pacific Coast Highway bridge, during the tern, sparrow and clapper rail nesting and breeding season. Therefore, to ensure that the dredging and beach nourishment projects authorized by this coastal development permit do not affect the terns, the Service recommended, and the applicants have agreed, to avoid dredging and beach nourishment in the Upper Newport Bay from April 1st through September 30th. The Commission imposes Special Condition 11 to implement the applicants proposal.

Additionally, the resource agencies have recommended avoiding dredging and beach nourishment within or near eelgrass habitat. Specifically, these agencies recommend a buffer zone between the dredging or disposal activity and any eelgrass beds. The buffer zone would prevent any direct

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<sup>4</sup> The cap is 20,000 cubic yards of dredging and 20,000 cubic yards of beach nourishment or ocean disposal in total for CC-078-99, CC-077-01, and CDP 5-99-282, as amended.

impacts upon eelgrass due to dredging and beach nourishment. Also a buffer would reduce indirect impacts to eelgrass due to turbidity. In response to this concern, the applicants have agreed to avoid dredging and beach nourishment within 15 feet of any eelgrass bed. With this buffer zone, the activities approved by this consistency determination and coastal development permit amendment will not have any direct impact upon this resource. The applicants have also proposed the following mitigation measures: marking the boundaries of any eelgrass beds within the project area prior to commencement of dredging and nourishment activities; avoid anchoring near any eelgrass bed; and avoiding vessel transit over eelgrass beds during lower tides. Meanwhile, the Commission imposes Special Condition 13 to incorporate the additional proposed mitigation measures.

In addition to the above described measures and in order to protect eelgrass habitat, the applicants have proposed to prepare and submit to the Executive Director pre- and post-construction eelgrass surveys which are prepared in accordance with the "Southern California Eelgrass Mitigation Policy" (SCEMP) (Exhibit 9) adopted by the National Marine Fisheries Service. If any eelgrass is present within 15 feet of the project area, a separate permit and consistency certification would be sought to carry out the project. Even with the 15 foot buffer, inadvertent impacts are possible. Therefore, if any eelgrass is inadvertently impacted, the applicant is proposing to replace the impacted eelgrass at a 1.2:1 ratio on-site in accordance with the SCEMP. These proposed and required measures were implemented by the Commission in Special Condition 2 of CDP 5-99-282 (see Appendix B). Special Condition 7 carries this condition forward to the amended project area. As proposed and conditioned, the Commission finds the project consistent with the marine resource and sensitive habitat policies of the Coastal Act.

Presently, the applicant has submitted plans showing the general location where dredging and beach nourishment would occur. However, this map does not show detailed scale of each dredging and deposition location. The applicant has proposed and the Commission previously conditioned CDP 5-99-282 to require the applicant to submit final plans with project level details prior to the commencement of any individual project. The plans were to be accompanied by the eelgrass survey and sediment grain size analysis testing described above. The Commission previously imposed Special Condition 3 to implement the applicants proposal (see Appendix B). Special Condition 7 of this amendment carries this requirement forward to the amended project area.

Coastal Development Permit 5-99-282 and CC-078-99 established a 5 year term of approval for the proposed development. The applicant has proposed that the term of approval of the amendment and this consistency certification (CC-077-01) match the expiration date of CDP 5-99-282 and CC-078-99. This expiration would occur on May 9, 2005. In order to implement the applicant's proposal, to ensure that the proposed project will not have any adverse impacts upon coastal resources, and to ensure that any changed circumstances are subject to Commission review, Special Condition 8 establishes an expiration date of May 9, 2005. In addition, Special Condition 8 clarifies that material for beach nourishment approved under this permit is limited to that obtained pursuant to Consistency Certification CC-078-99 and CC-077-01. This provision will ensure that dredge material from locations not approved by the Commission are not utilized for beach nourishment under this coastal development permit, as amended. Therefore, as proposed and conditioned to mitigate and avoid impacts to marine resources, the Commission find the proposed project is consistent with Sections 30230 and 30233(b) of the Coastal Act.

## 5. Caulerpa

As noted above, eelgrass is a sensitive aquatic plant species which provides important habitat for marine life. Eelgrass grows in shallow sandy aquatic environments which provide plenty of sunlight. Recently, a non native and invasive aquatic plant species, *Caulerpa taxifolia* (herein *C. taxifolia*), has been discovered in parts of Huntington Harbour (Emergency Coastal Development Permits 5-00-403-G and 5-00-463-G) which occupies similar habitat. *C. 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<sup>5</sup>.

Because of the grave risk to native habitats, in 1999 *C. taxifolia* was designated a prohibited species in the United States under the Federal Noxious Weed Act. In addition, in September 2001 the Governor signed into law AB 1334 which made it illegal in California for any person to sell, possess, import, transport, transfer, release alive in the state, or give away without consideration various *Caulerpa* species including *C. taxifolia*.

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°F. Although warmer southern California habitats are most

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### <sup>5</sup> References

- Meinesz, A. (Translated by D. Simberloff) 1999. *Killer Algae*. University of Chicago Press
- Chisholm, J.R.M., M. Marchionetti, and J.M. Jaubert. Effect of low water temperature on metabolism and growth of a subtropical strain of *Caulerpa taxifolia* (Chlorophyta). *Marine Ecology Progress Series* 201:189-198
- Ceccherelli, G. and F. Cinelli. 1999. The role of vegetative fragmentation in dispersal of the invasive alga *Caulerpa taxifolia* in the Mediterranean. *Marine Ecology Progress Series* 182:299-303
- Smith C.M. and L.J. Walters. 1999. Fragmentation as a strategy for *Caulerpa* species: Fates of fragments and implications for management of an invasive weed. *Marine Ecology* 20:307-319.
- Jousson, O., J. Pawlowski, L. Zaninetti, A. Meinesz, and C.F. Boudouresque. 1998. Molecular evidence for the aquarium origin of the green alga *Caulerpa taxifolia* introduced to the Mediterranean Sea. *Marine Ecology Progress Series* 172:275-280.
- Komatsu, T. A. Meinesz, and D. Buckles. 1997. Temperature and light responses of the alga *Caulerpa taxifolia* introduced into the Mediterranean Sea. *Marine Ecology Progress Series* 146:145-153.
- Gacia, E. C. Rodriguez-Prieto, O. Delgado, and E. Ballesteros. 1996. Seasonal light and temperature responses of *Caulerpa taxifolia* from the northwestern Mediterranean. *Aquatic Botany* 53:215-225.
- Belsher, T. and A. Meinesz. 1995. Deep-water dispersal of the tropical alga *Caulerpa taxifolia* introduced into the Mediterranean. *Aquatic Botany* 51:163-169.

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 *C. 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 *C. 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 *C. taxifolia* is present, any project that disturbs the bottom could cause its spread by dispersing viable tissue fragments. The proposed project would disturb the harbor bottom by dredging as well as disturb some submerged areas through the placement of sand for beach nourishment. These activities could cause the dispersal of *C. taxifolia* through fragmentation. In addition, the *C. taxifolia* could be distributed to other parts of the bay or to the open ocean through transport of the dredge spoils to other locations for beach nourishment and ocean disposal. In order to assure that the proposed project does not cause the dispersal of *C. taxifolia*, the applicant is proposing to survey for the presence of *C. taxifolia* in the project area—in accordance with SCCAT protocols (Exhibit 11) and has agreed not to commence the project if *C. taxifolia* is found in the project area. The applicant would apply to implement measures to eradicate *C. taxifolia* from the project area and could commence with the project once the eradication is complete. The Commission imposes Special Condition 12 to implement the applicants proposal. Therefore, as proposed and conditioned to mitigate and avoid impacts to marine resources, the Commission find the proposed project is consistent with Sections 30230 and 30233(b) of the Coastal Act.

## 6. Recreation and Public Access

The proposed project is consistent with the following Coastal Act policies which encourage public access and recreational use of coastal areas.

Section 30210 of the Coastal Act states:

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

Section 30213 of the Coastal Act states:

*Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.*

Section 30221 of the Coastal Act states:

*Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

The proposed project will mitigate beach erosion and provide for the continuing and increased recreational use of the City street end beaches by the public. The proposed beach replenishment will increase the size of the beach and will provide a larger area for recreational use. In addition, the proposed project will allow for continued use of coastal waters for recreational boating.

The typical street end and bulkhead-fronting beach is 30 feet wide and does not provide a lot of space for recreational users to utilize the beach. The project will temporarily impact the use of some street end and bulkhead-fronting beaches during the deposition of the dredged material. However, the disposal activity will typically not exceed a single day. In addition, street end and bulkhead-fronting beaches on Newport Bay are not the primary recreational beaches. Instead, the wide sandy beaches on the ocean front are more heavily used for this purpose. Also, for those users choosing to use street end or bulkhead-fronting beaches, alternative street end and bulkhead-fronting beaches are typically 300 to 500 feet away.

The proposed project will occur upon tidelands which are held in trust for the people of the State of California. Administration of a portion of Newport Bay was granted to the City of Newport Beach through a tidelands grant contained within AB1422 approved by the Governor of California on April 6, 1978 and filed with the Secretary of State on April 7, 1978. In general, the area granted consists of submerged and filled lands in the lower bay. Accordingly, the areas adjacent to Lido Isle, the Lido Peninsula, and Balboa Island are within the City's tidelands grant. Certain uses of tidelands are specified within the tidelands grant. Among those uses are those for "recreational purposes". The proposed dredging and beach nourishment would maintain and improve recreational use of State tidelands. A letter dated May 22, 2000 from the California State Lands Commission (CSLC) states that the proposed development is consistent with the City's tidelands grant.

Meanwhile, some of the project area is located within State tidelands which were granted to the County of Orange (Statutes of 1919, chapter 526, page 1138). These areas are generally located around Harbor Isle, some portions of Linda Isle and within the Upper Newport Bay. The tidelands grant to the County does not authorize the County to dredge or nourish beaches within the grant area without prior approval from the CSLC.

In addition, there are some submerged lands within the project area which are owned in fee title by a private property owner. These areas are located in the channel between Linda Isle and the mainland, the cove within Linda Isle and the coves of the Dover Shores residential community. The private property owners were invited to join as co-applicants, but have not elected to join.

In order to assure that the proposed development is consistent with any applicable tidelands grant and any areas held in public trust or over which there is a public trust easement, the applicants have proposed to provide evidence -before commencement of development- from CSLC that either approval has been granted or that no approval is necessary. For the private property areas, the applicants have also proposed to provide evidence of legal ability to undertake development upon those lands and to comply with the conditions of the permit prior to commencement of development. In order to implement these proposals, the Commission imposes Special Conditions 9 and 10. Therefore, as proposed and conditioned, the Commission finds that the proposed project is consistent with Sections 30210, 30213 and 30221 of the Coastal Act.

## **7. Hazards**

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.*

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 beach ends and in front of the bulkheads where beach nourishment is proposed. The fact that the applicant is proposing beach nourishment to restore pre-existing beaches indicates that erosion does occur. However, the applicant is not proposing to increase erosion hazards by increasing the size of beaches beyond pre-existing conditions. Therefore, the proposed project minimizes this hazard.

However, the proposed development only offers a temporary solution to erosion that occurs at the street end beaches and in front of bulkheads. The applicants and all landowners need to be advised of the temporary nature of the proposed development. Therefore, the Commission imposes Special Condition 14, which requires the applicants and any landowners to acknowledge the temporary nature of the development and the benefits provided by the development. As conditioned, the Commission finds the proposed project is consistent with Section 30253 of the Coastal Act.

## **8. Local Coastal Program**

Section 30604(a) of the Coastal Act provides that the Commission shall issue a coastal development permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act.

The Commission certified the Land Use Plan for the City of Newport Beach on May 19, 1982. As conditioned, the proposed development is consistent with the policies contained in the certified Land Use Plan and with the Chapter 3 policies of the Coastal Act. Therefore, approval of the proposed development will not prejudice the City's ability to prepare a Local Coastal Program for Newport Beach that is consistent with the Chapter 3 policies of the Coastal Act as required by Section 30604(a).

## **9. California Environmental Quality Act (CEQA)**

Section 13096 of the California Code of Regulations requires Commission approval of coastal development permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed project has been conditioned in order to be found consistent with the Chapter 3 policies of the Coastal Act. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, is the least environmentally-damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

## **APPENDIX A**

### **Other Approvals**

1. City of Newport Beach, Fire and Marine Department, Approval in Concept, July 26, 1999 and August 27, 2001.
2. Addendum to Waiver of Waste Discharge Requirements...by the California Regional Water Quality Control Board, San Diego Region, dated January 8, 2002.

### **Substantive File Documents**

3. City of Newport Beach Certified Land Use Plan
4. *Physical and Chemical Sediment Testing Associated with the Regional General Permit for Dredging in Newport Harbor* by MBC Applied Environmental Services of Costa Mesa, California dated August 1999.
5. Proposed Regional General Permit (RGP) No. 54, U.S. Army Corps of Engineers Permit Application No. 98-00296-SDM.
6. California Department of Fish & Game comment letters: September 29, 1999.
7. U.S. Fish & Wildlife Service comment letter: April 20, 1999 .
8. U.S. National Marine Fisheries Service comment letter: November 23, 1998.
9. California Regional Water Quality Control Board Waiver of Waste Discharge Requirements dated August 26, 1999.
10. Coastal Development Permit 5-89-259 (City of Newport Beach).
11. Coastal Development Permit 5-86-130 (City of Newport Beach).
12. Coastal Development Permit 5-85-729 (City of Newport Beach).
13. *Response to Coastal Commission staff comments Newport Harbor 10-year maintenance permit renewal, Eelgrass (Zostera marina) habitats, Newport Bay, California* prepared by Rick Ware of Coastal Resource Management.
14. *Lower Newport Harbor Eelgrass Restoration Project Field Reconnaissance Report* prepared by Chambers Group, Inc. of Irvine, California, and Coastal Resources Management of Corona del Mar, California dated August 1999.
15. *Draft Environmental Assessment for Lower Newport Bay Eelgrass Restoration Project, Lower Newport Bay, Newport Beach, California* prepared by the U.S. Army Corps of Engineers dated January 2000.
16. *Results of Physical, Chemical, and Bioassay Testing of Sediments Collected from Newport Bay* by MEC Analytical Systems, Inc. of Carlsbad, California, dated April 28, 2001.
17. *Biological Impact Assessment, Newport Bay Maintenance Dredging Project, City of Newport Beach, California* by Coastal Resources Management of San Clemente, CA, dated December 6, 2001.
18. Comment letter from California Department of Fish and Game dated December 3, 2001
19. Comment letter from the National Marine Fisheries Service dated December 6, 2001
20. Comment letter from the U.S. Fish and Wildlife Service dated October 3, 2001

## **APPENDIX B**

### **Previously Imposed Special Conditions**

#### **1. SUITABILITY OF MATERIALS**

- A. Prior to each dredging and beach disposal episode at each individual dredging and beach disposal location, the permittee shall sample the material to be dredged for the purpose of determining the physical characteristics of the material. Testing shall be performed consistent with procedures defined in: "Procedures for Handling and Chemical Analysis of Sediment and Water Samples," by Russell H. Plumb (1981), Corps Technical Report EPA/CE-81-1, pages 3-28 to 3-47. The grain size test shall be conducted on a composite of at least one (1) core per one-quarter (1/4) acre area to be dredged and/or at least one (1) core per site for each project. The grain size test shall also be conducted on at least 1 core from the receiving beach for each project if the dredge material to be placed on the beach is less than 80% sand. The core depth shall be equivalent to the proposed dredging depth plus any over-dredging. Grain size data shall be reported to the nearest 1% for sand, silt, and clay consistent with procedures defined in: "Procedures for Handling and Chemical Analysis of Sediment and Water Samples," by Russell H. Plumb (1981), Corps Technical Report EPA/CE-81-1, pages 3-28 to 3-47. The material utilized for beach nourishment shall have a sand content that is either i) equal to or greater than 80% sand; or ii) within 10% of the sand content of the receiver beach.
- B. Prior to commencement of beach nourishment at a site, the results of each sampling episode and beach nourishment compatibility test shall be submitted for the review and approval of the Executive Director. Dredged material deemed suitable may be deposited at the approved deposition sites only after the Executive Director has concurred with a City determination that the materials to be dredged have been deemed "suitable" using the standards in Special Condition 1.A. above. All dredged material deemed "unsuitable" shall be disposed of at an approved location according to all federal, state and local regulations. If the disposal site is located in the coastal zone, a separate coastal development permit application shall be filed for the disposal of the "unsuitable" material. All contracts involving the subject project shall include the above stated condition of approval.

#### **2. EELGRASS BEDS**

- A. Pre-Beach-Nourishment Eelgrass Survey. Not more than one hundred twenty (120) days prior to commencement of each beach nourishment event, the applicant shall undertake a survey of the project area to determine the existence of eelgrass. The survey shall be prepared in full compliance with the most recent version of the "Southern California Eelgrass Mitigation Policy" adopted by the National Marine Fisheries Service and shall be prepared in consultation with the California Department of Fish and Game. The applicant shall submit each eelgrass survey for the review and approval of the Executive Director within five (5) business days of completion of each eelgrass survey and in any event no later than fifteen (15) business days prior to commencement of each beach nourishment event. The survey shall demonstrate to the Executive Director that the proposed beach

nourishment is 15 or more feet away from any eelgrass bed (*Zostera marina*). If the survey identifies any eelgrass within 15 feet of the beach nourishment site, the beach nourishment shall require an amendment to this permit from the Coastal Commission or a new coastal development permit.

- B. The placement of any sand or deposition of any dredged material below the mean high tide line (MHTL) shall be permitted consistent with Special Condition 3 and only with a determination by the Executive Director, in consultation with the California Department of Fish and Game, that the proposed beach deposition is 15 or more feet away from eelgrass (*Zostera marina*) beds and that there will be no negative impact to eelgrass (*Zostera marina*) beds.
- C. Post-Beach-Nourishment Eelgrass Survey If any eelgrass is identified in the project area by the survey required in Special Condition 2.A. above, within one month after the conclusion of beach nourishment at each site, the applicant shall survey the project site to determine if any eelgrass was adversely impacted. The survey shall be prepared in full compliance with the most recent version of the "Southern California Eelgrass Mitigation Policy" adopted by the National Marine Fisheries Service and shall be prepared in consultation with the California Department of Fish and Game. The applicant shall submit the post-beach-nourishment eelgrass survey for the review and approval of the Executive Director within thirty (30) days after completion of the survey. If any eelgrass has been impacted, the applicant shall replace the impacted eelgrass at a 1.2:1 ratio on-site, or at another location acceptable to the Executive Director, in accordance with the Southern California Eelgrass Mitigation Policy.

3. **REVISED PLANS CONDITION**

- A. **AT LEAST 15 BUSINESS DAYS PRIOR TO EACH BEACH DEPOSITION EPISODE**, the applicant shall submit revised plans to the Executive Director for review and approval. The revised plans shall show the following:
1. A vicinity map showing *the exact* location of the individual beach disposal site;
  2. A site plan drawn to scale showing the pre-disposal and post-disposal contour of the beach. The plan shall indicate the quantity of material to be disposed at the beach. The site plan shall also include details regarding property lines, existing structures including but not limited to bulkheads, piers, ramps, and floats, and the location of the bulkhead line, pierhead line, and project line;
  3. Results of an eelgrass survey to determine the presence of eelgrass within or adjacent to the proposed beach disposal area that could be affected directly or indirectly by the proposed activity. The results of the survey shall show how the proposed beach restoration will not occur within 15 feet of any eelgrass bed. The results of the eelgrass survey shall include the person conducting the survey, when and how the survey was conducted, and the results of the survey. The eelgrass survey shall be done in accordance with the *Southern California Eelgrass Mitigation Policy*, adopted July 31, 1991, as amended;

4. A schedule showing when the individual dredging project is proposed to begin and to end.
- B. The permittee shall undertake development in accordance with the approval final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

4. **SCOPE AND TERM OF PERMIT APPROVAL**

The development authorized by this coastal development permit is limited to beach nourishment using only suitable material dredged pursuant to Consistency Determination CC-078-99 and U.S. Army Corps of Engineers Permit No. 98-00296-SDM. Coastal development permit 5-99-282 does not authorize any repair, modification, or in-alignment replacement of any boat dock structures (i.e. piers, docks, gangways, and floats) or bulkheads, as described in U.S. Army Corps of Engineers Permit No. 98-00296-SDM. No more than 500 cubic yards of suitable dredge material may be deposited for beach nourishment during any single beach nourishment event. The development authorized by this permit shall expire 5 years from the date of Commission approval.

5. **CALIFORNIA STATE LANDS COMMISSION APPROVAL**

**PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, applicant shall provide to the Executive Director written evidence from the California State Lands Commission that the proposed development is consistent with the terms and conditions of the City of Newport Beach tidelands grant contained within Assembly Bill 1422 approved by the Governor on April 6, 1978 and filed with the Secretary of State April 7, 1978. The applicant shall inform the Executive Director of any changes to the project required by the California State Lands Commission. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is required.

6. **ASSUMPTION OF RISK, WAIVER OF LIABILITY AND INDEMNITY AGREEMENT BY PUBLIC ENTITY**

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

- B. **PRIOR TO ANY CONVEYANCE OF THE PROPERTY THAT IS THE SUBJECT OF THIS COASTAL DEVELOPMENT PERMIT**, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of subsection (a) of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.
- C. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit a written agreement, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition.

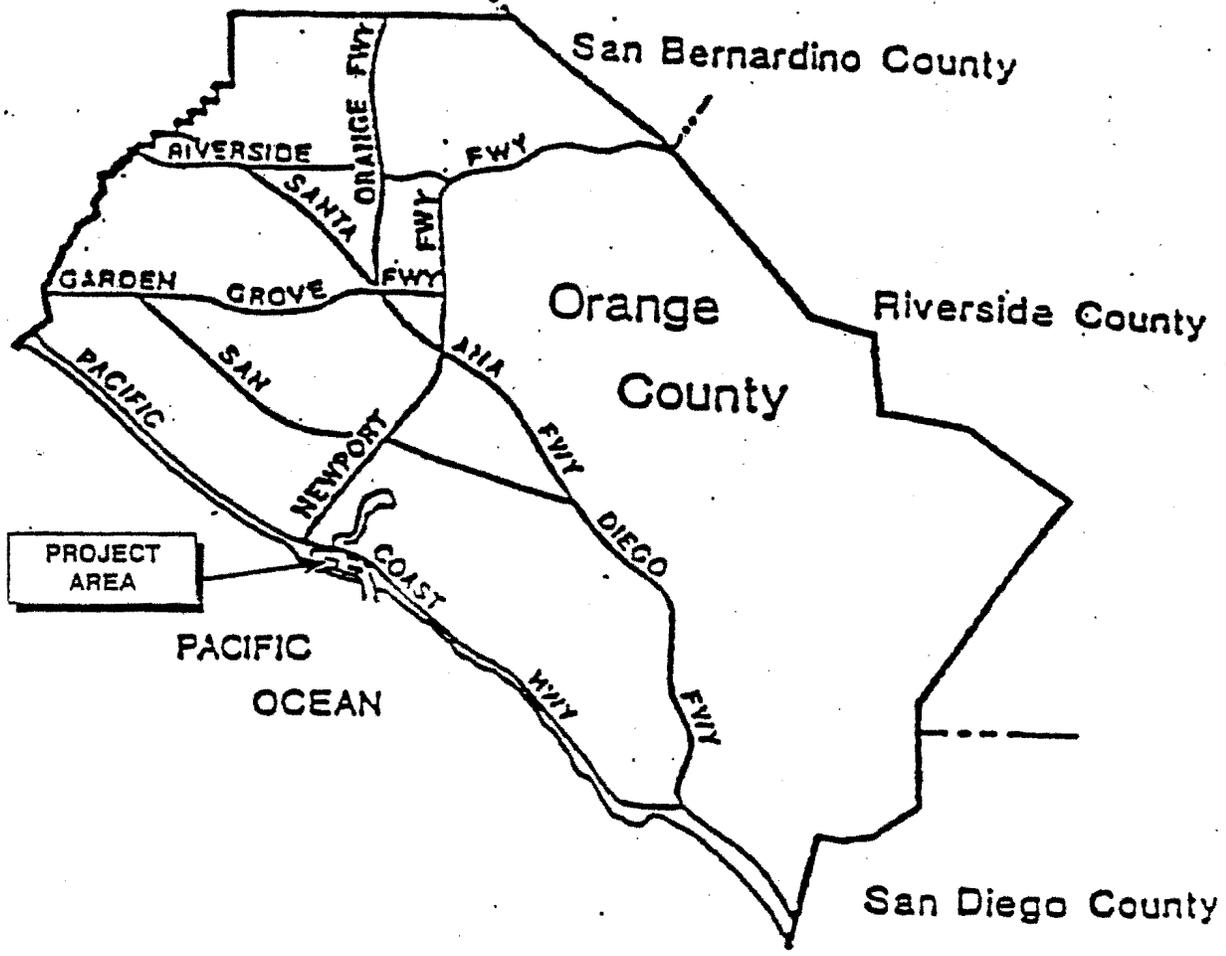




Los Angeles County

Orange County

San Bernardino County



Riverside County

Orange County

San Diego County

PROJECT AREA

HARBOR RESOURCES DIV.  
CITY OF NEWPORT BEACH

*Tony Miller*  
8/27/61

COASTAL COMMISSION

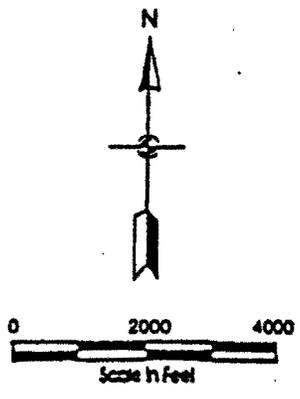
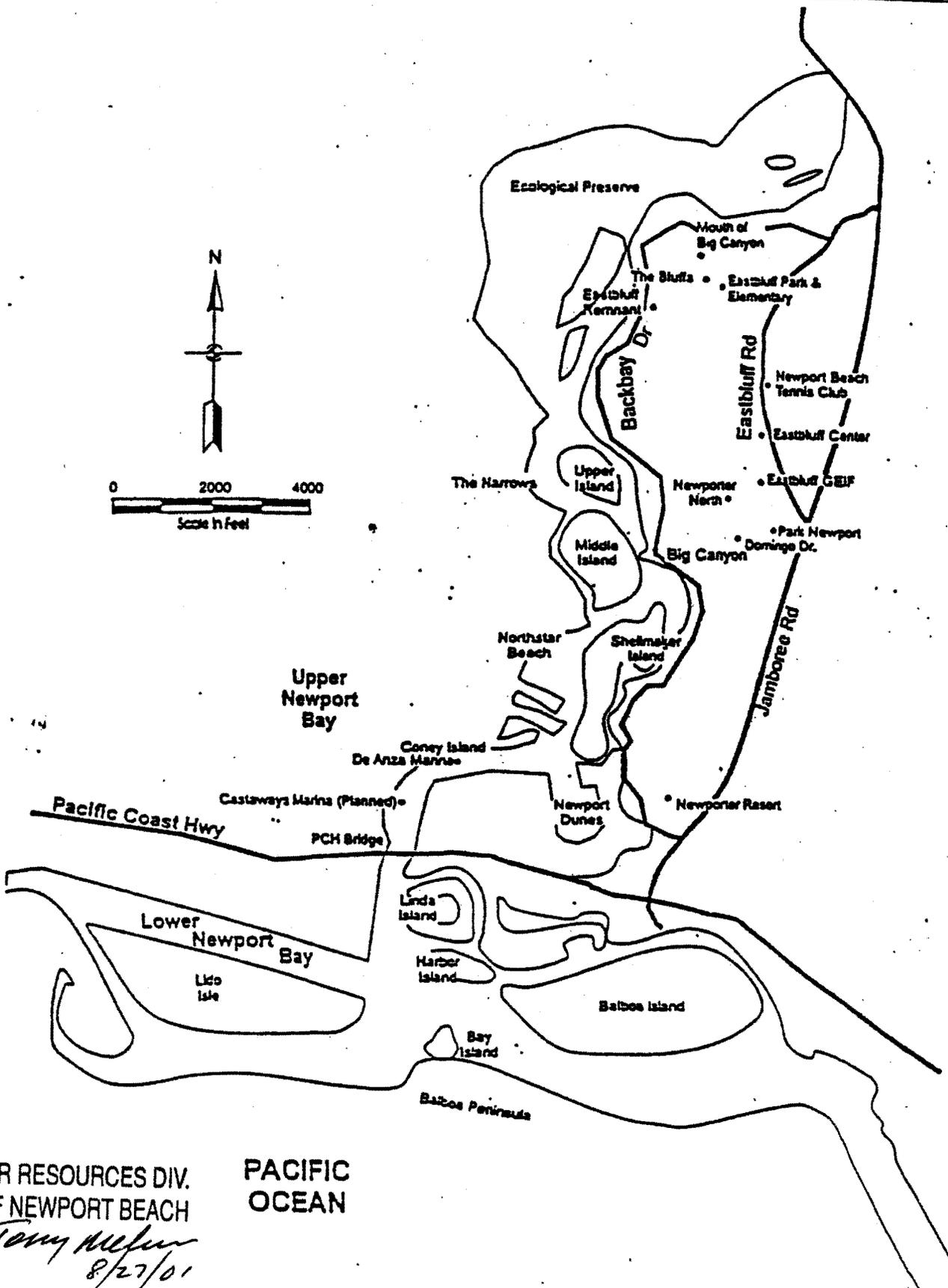
5-99-282-A1  
CC-077-01

EXHIBIT # 1

PAGE 1 OF 3

SOURCE: CORPS 1953  
NOT TO SCALE

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HARBOR RESOURCES DIV.  
CITY OF NEWPORT BEACH

PACIFIC OCEAN

*Tommy Miller*  
8/27/01

NOTE: Upper Newport Bay - Area North of Pacific Coast Highway  
Lower Newport Bay - Area South of Pacific Coast Highway

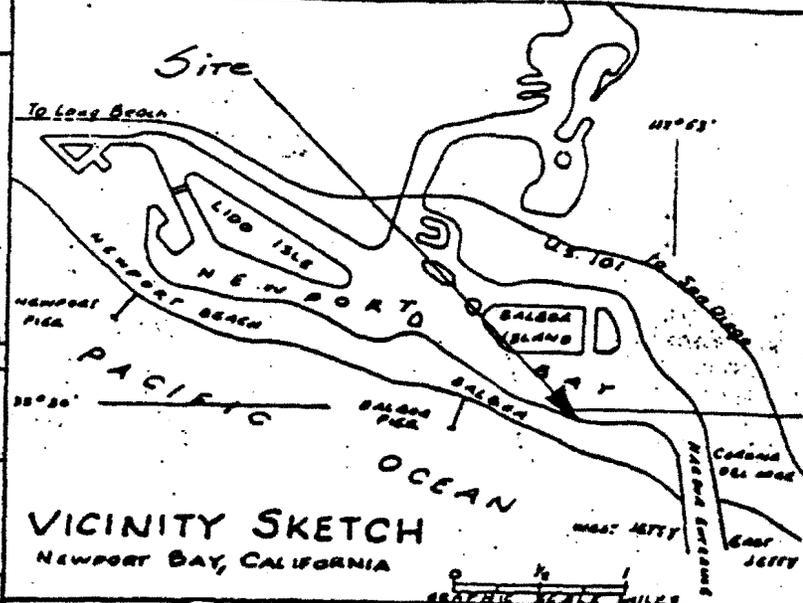
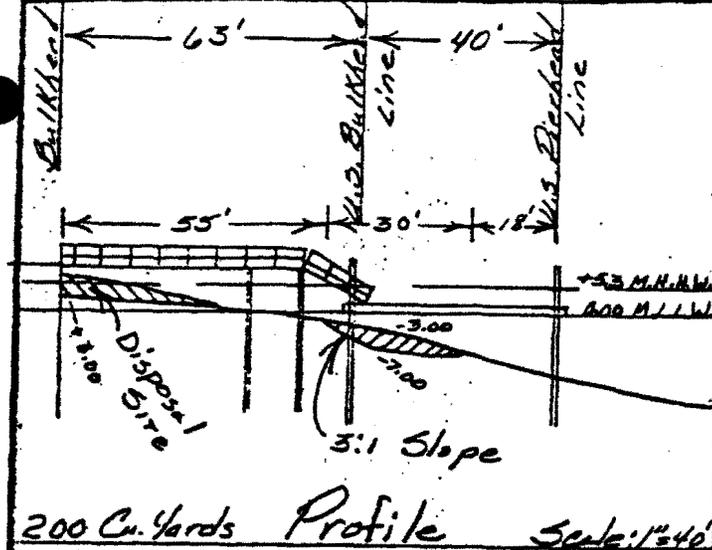
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5-99-282-A1  
CC-077-01

EXHIBIT # 1  
PAGE 2 OF 3

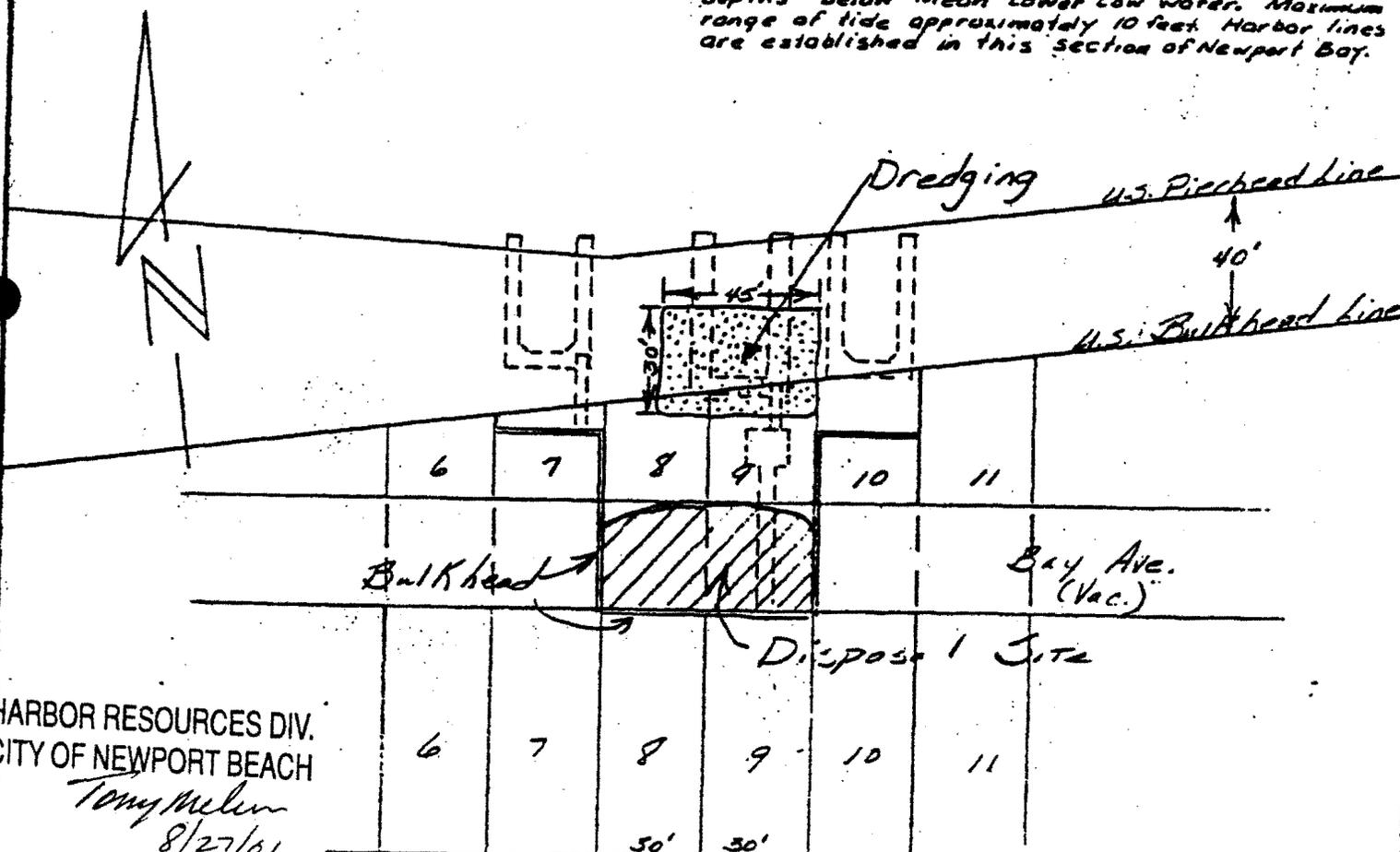
SOURCE: CORPS 1992

(2)

# CITY OF NEWPORT BEACH



Soundings are expressed in feet and denote depths below Mean Lower Low Water. Maximum range of tide approximately 10 feet. Harbor lines are established in this section of Newport Bay.



HARBOR RESOURCES DIV.  
CITY OF NEWPORT BEACH  
Tom Melvin  
8/27/01

TYPICAL  
DREDGING  
PERMIT

East Balboa Blvd.

COASTAL COMMISSION  
S-99-283-A1  
CC-077-01

EXHIBIT # 1  
PAGE 3 OF 3

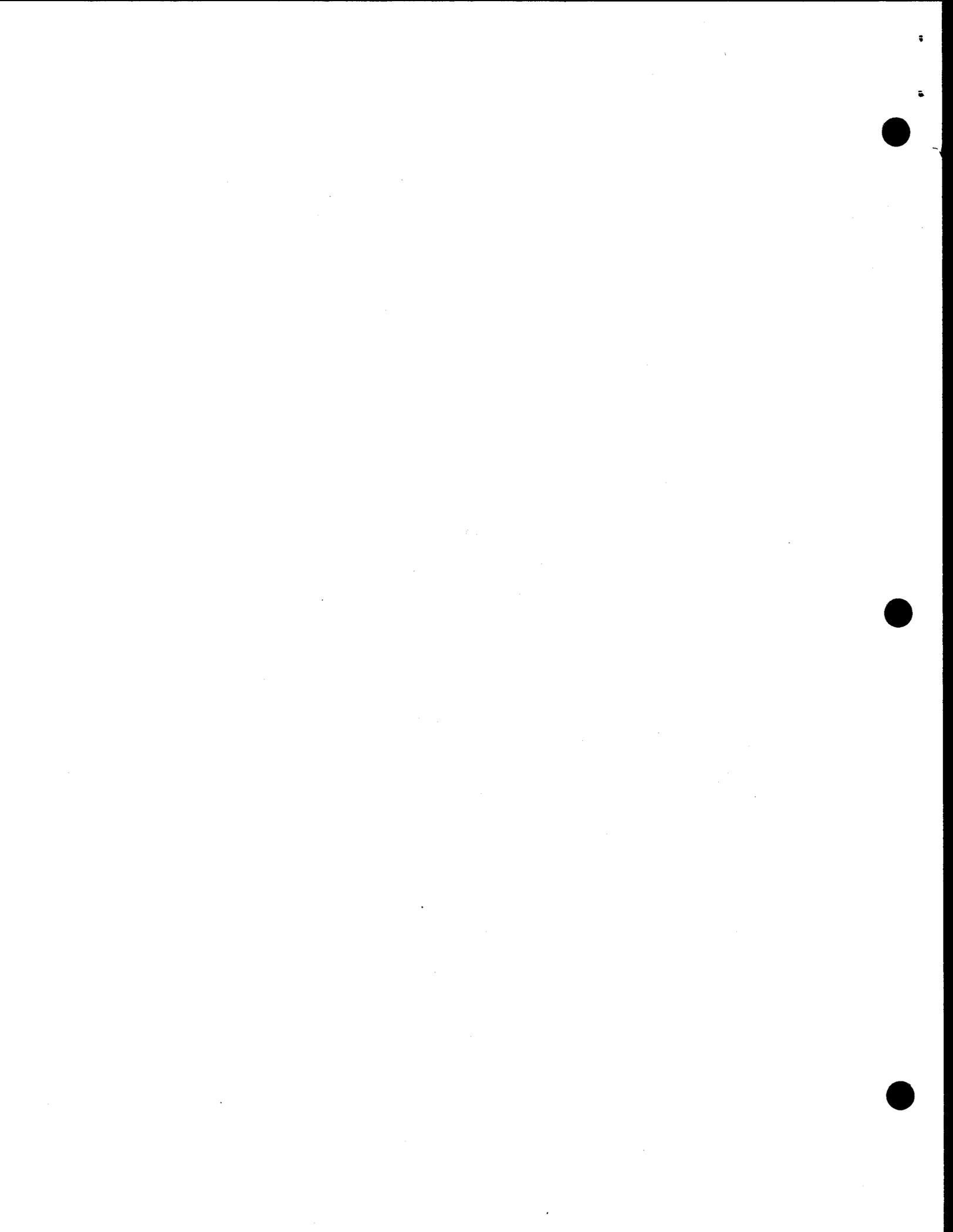
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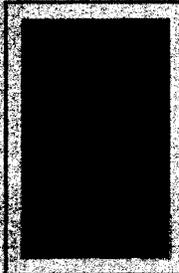
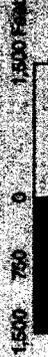
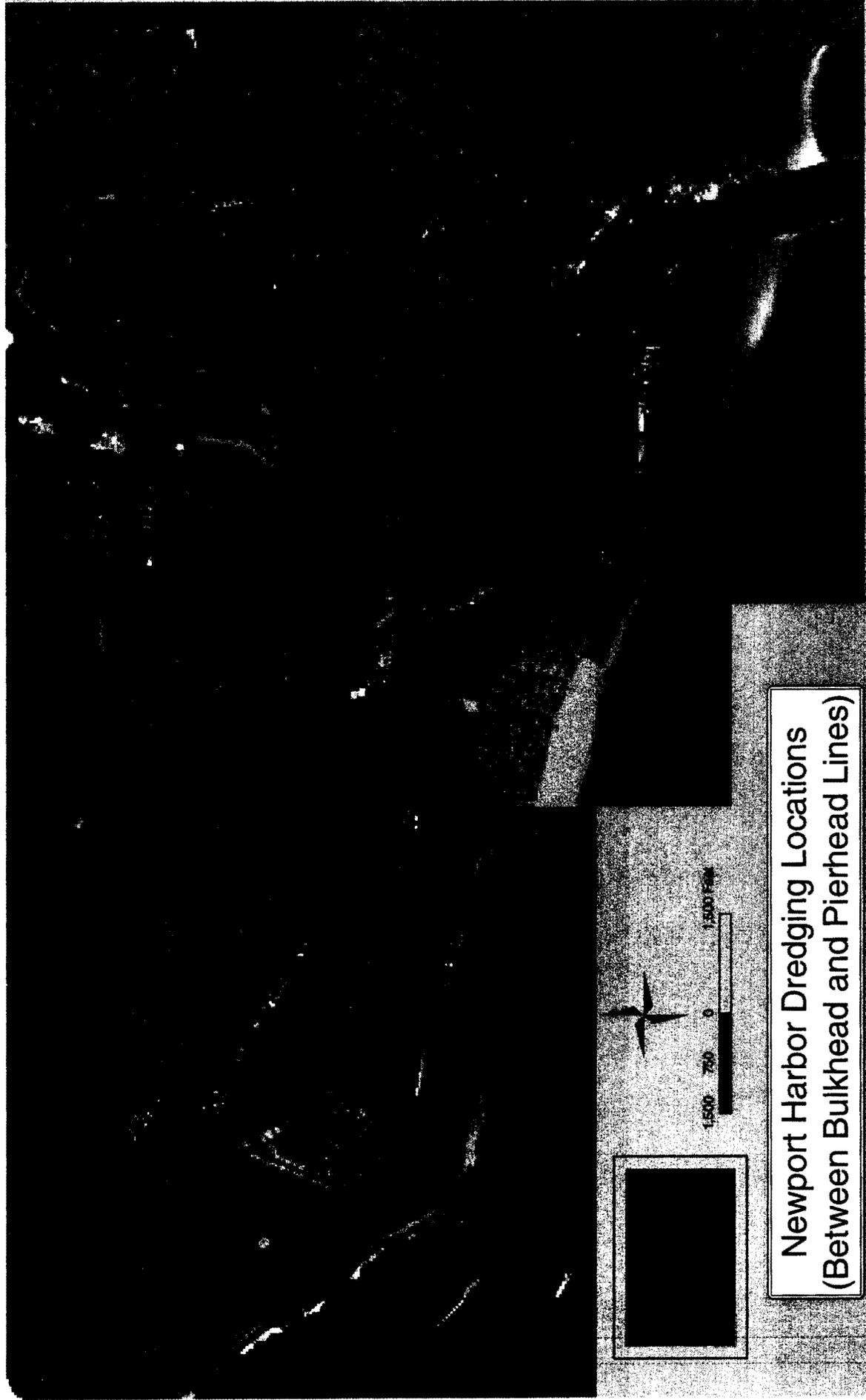
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BLK. K-17 TRACT 16

JOB ADDRESS: 1114 E. Balboa Blvd.

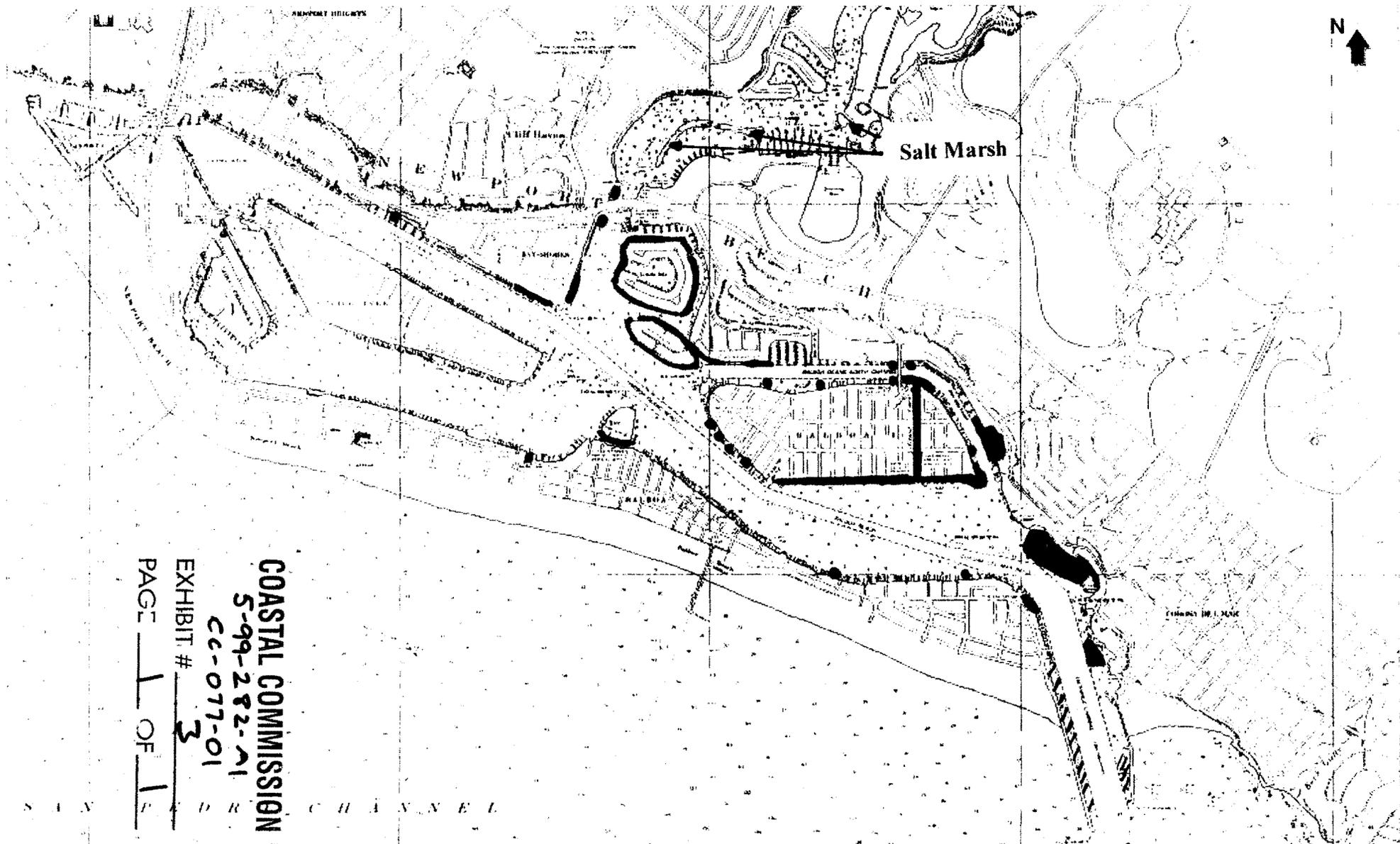
CONTRACTOR Newport Dredging DATE 5/11/03





Newport Harbor Dredging Locations  
(Between Bulkhead and Pierhead Lines)

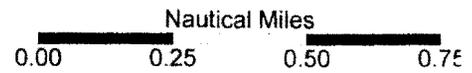




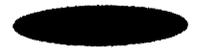
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PAGE 1 OF 1

**EXHIBIT 2.**  
**EELGRASS DISTRIBUTION IN NEWPORT BAY AND**  
**LOCATION OF SALT MARSH HABITAT IN UPPER NEWPORT BAY**

Sources: See Text  
Coastal Resources Management, December 2001



Legend: Eelgrass





# California Regional Water Quality Control Board Santa Ana Region

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South Coast Region



Gray Davis  
Governor

JAN 15 2002

Internet Address: <http://www.swrcb.ca.gov/rwqcb8>  
3737 Main Street, Suite 500, Riverside, California 92501-3348  
Phone (909) 782-4130 - FAX (909) 781-6288

CALIFORNIA  
COASTAL COMMISSION

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.  
For a list of simple ways you can reduce demand and cut your energy costs, see our website at [www.swrcb.ca.gov/rwqcb8](http://www.swrcb.ca.gov/rwqcb8).*

Winston H. Hickox  
Secretary for  
Environmental  
Protection

January 8, 2002

Tony Melum  
City of Newport Beach  
829 Harbor Island Drive  
Newport Beach, CA 92660

## **ADDENDUM TO THE WAIVER OF WASTE DISCHARGE REQUIREMENTS AND WATER QUALITY CERTIFICATION FOR U.S. ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT, REGIONAL GENERAL PERMIT NO. 54, MAINTENANCE DREDGING OF SLIPS, AND MINOR REPAIR AND MAINTENANCE OF DOCKS, FLOATS, AND PIERS WITHIN NEWPORT BAY, CITY OF NEWPORT BEACH, ORANGE COUNTY (ACOE REFERENCE NUMBER 2000100988)**

Dear Mr. Melum:

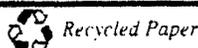
On August 26, 1999, the Santa Ana Regional Water Quality Control Board (RWQCB) issued a waiver of waste discharge requirements and water quality certification for the above-referenced project. Apparently, an investigation was conducted to determine the quality of the sediment in Newport Bay for the purposes of determining suitability of dredged materials for aquatic or ocean disposal. On December 6, 2001, we received updated project information indicating that the U.S. Environmental Protection Agency (EPA) has completed its review of the report entitled results of Physical, Chemical, and Bioassay Testing of Sediments Collected From Newport Bay, CA (April 28, 2001) prepared by MES Analytical Systems, Inc. for the City of Newport Beach.

### Revised Project Description:

The revised project description clarifies the changes in locations where the dredged material will be taken from. Based on field investigations and review of the above-mentioned report, the EPA has recommended that the materials within Areas 1, 2, 3-2, 3-3, 3-4, 3-5, and 4 are suitable for aquatic or ocean disposal at the EPA approved LA3 ocean disposal site. RWQCB staff concurs with EPA's recommendations.

Due to the toxic nature of core (site) 3-1, the EPA does not recommend aquatic or ocean disposal of this location. RWQCB staff concurs with EPA's recommendation.

California Environmental Protection Agency



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January 8, 2002

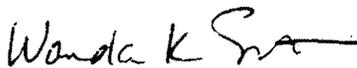
In response to a suspected violation of any condition of this certification, the Regional Board may require the holder of any permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the Regional Board deems appropriate. The burden, including costs, of the reports shall be reasonable in relation to the need for the reports and the benefits to be obtained from the reports.

In response to any violation of the conditions of this certification, the Santa Ana Regional Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

Pursuant to California Code of Regulations Section 3857, we will take no further action on your application. This letter constitutes a technically conditioned water quality certification. Please notify our office five (5) days before construction begins on this project.

Should there be any questions, please contact Stephanie M. Gasca or me at (909) 782-3221 or (909) 782-4468, respectively.

Sincerely,



Wanda Smith, Chief  
Coastal Waters Planning Section

cc: U.S. Environmental Protection Agency, Director of Water Division (WTR-1) – Alexis Strauss

U.S. Army Corps of Engineers, Los Angeles District – Russ Kaiser  
California Coastal Commission, Long Beach Branch – Karl Schwing  
State Water Resources Control Board, Division of Water Quality, Water Quality Certification Unit – Oscar Balaguer, Chief

**COASTAL COMMISSION**  
S-99-282-11  
CC-077-01  
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**DEPARTMENT OF FISH AND GAME**

Marine Region  
4949 Viewridge Avenue  
San Diego, CA 92123



December 3, 2001

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CALIFORNIA  
COASTAL COMMISSION

Mr. Karl Schwing  
California Coastal Commission  
South Coast Area  
200 Oceangate Ave., 10<sup>th</sup> Floor  
Long Beach, California 90802-4325

Dear Mr. Schwing:

This letter is in response to a request from Mr. Tony Melum, Director of Harbor Resources, City of Newport Beach, concerning Coastal Development Permit (CDP) 5-99-282; beach nourishment using up to 20,000 cubic yards a year of suitable dredged material from dock areas in Newport Bay. In the CDP, four specific areas (1-4) were excluded from dredging pending results of additional sediment testing. The testing has been completed and the results have been reviewed by the U.S. Environmental Protection Agency (EPA). EPA has determined that Areas 1 (Lido Island West), 2 (Linda Isle), and 4 (Balboa Island West) are suitable for aquatic disposal or ocean disposal (at LA3), while Area 3 (Upper Newport), is not suitable for aquatic or ocean disposal. The City of Newport Beach is requesting an amendment to CDP 5-99-282 to allow three of the excluded areas (Areas 1, 2, and 4) be brought into the permit. No other changes are proposed, the scope of work and controlling conditions remain the same.

The Department of Fish and Game has reviewed EPA's findings and concurs with the City of Newport Beach's request for the addition of Areas 1, 2, and 4, to CDP 5-99-282. If you have any further questions please call me at (858) 467-4231.

Sincerely,

Marilyn J. Fluharty  
Environmental Scientist  
Marine Region

cc: Mr. Tony Melum  
City of Newport Beach  
Newport Beach, CA

**COASTAL COMMISSION**5-99-282-A1  
CC-077-01EXHIBIT # 5PAGE 1 OF 1



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Southwest Region  
501 West Ocean Boulevard, Suite 4200  
Long Beach, California 90802-4213

DEC 6 2001

F/SWR4:RSH

Mr. Tony Melum  
Director, Division of Harbor Resources  
City of Newport Beach  
P.O. Box 1768  
Newport Beach, California 92658-8915

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South Coast Region

DEC 24 2001

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COASTAL COMMISSION

Dear Mr. Melum:

We have reviewed your request to amend Corps of Engineers Permit RGP54 and related Coastal Commission Permit 5-99-282. Those amendments would allow for the dredging and disposal of material from four areas of Newport Bay that are currently excluded from these two permits. We concur with the Environmental Protection Agency determination of May 25, 2001, that material from Areas 1,2, and 4 are suitable for ocean disposal. We also concur with their determination that the elevated bulk sediment chemistry levels for the material from Area 3, between the Pacific Coast Highway bridge and half way between core 3-1 and core 3-2, make these sediments unsuitable for ocean disposal.

Should you have any questions, please contact Mr. Robert Hoffman at 562-980-4043 or via email at: bob.hoffman@noaa.gov.

Sincerely,

Rodney R. McInnis  
Acting Regional Administrator

COASTAL COMMISSION

5-99-282-A1

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# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Ecological Services  
Carlsbad Fish and Wildlife Office  
2730 Loker Avenue West  
Carlsbad, California 92008

In Response Refer To:  
FWS-OR-2248.1

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DEC 24 2001

OCT 3 2001

Tony Melum  
Director, Harbor Resources Division  
City of Newport Beach  
P.O. Box 1768  
Newport Beach, California 92658-8915

CALIFORNIA  
COASTAL COMMISSION

Re: Technical Assistance for the Amendment to California Coastal Commission Maintenance Dredging Permit Number 5-99-292 for Newport Bay, Newport Beach, Orange County, California

Dear Mr. Melum:

We received your letter dated August 22, 2001, regarding the above noted California Coastal Commission (CCC) Permit Amendment on September 17, 2001. Your letter stated that the amendment will allow the City of Newport Beach (City) to add four additional areas within Newport Bay to the current maintenance dredging permit. Test results for these additional areas have found the sediments to be acceptable to the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers for both beach and ocean disposal. The CCC asked you to evaluate the effect of maintenance dredging on the federally endangered California least tern (*Sterna antillarum browni*, "least tern"). You provided us with an effects analysis for the least tern and asked for our concurrence with the findings of that analysis.

The effects analysis you provided only mentions lower Newport Bay; however we understand that you are asking for our concurrence on dredging in additional areas of upper Newport Bay (upstream of Pacific Coast Highway) based on the map you faxed to us of areas previously excluded from dredging. Your analysis for lower Newport Bay found that given the small scale and intermittent nature of such dredging, the requirement of contractors to employ best management practices to reduce turbidity, and the distance to the nearest least tern breeding colony, that there was no adverse affect to least terns from this type of maintenance dredging. We concur with this analysis for lower Newport Bay. However, the additional areas are within upper Newport Bay and portions of these areas are apparently within the Newport Bay Ecological Reserve and adjacent to salt marsh habitat. We have no objection to removing the Dover Shores area from the exclusion zone of upper Newport Bay but all other areas should remain excluded from the dock maintenance General Permit. We encourage the City to allow maintenance dredging in upper Newport Bay only in developed areas for projects with minimal

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Mr. Tony Melum (FWS-OR-2248.1)

2

sediment removal volumes, and to forego dredging to the maximum extent possible near natural habitat areas that support sensitive wildlife.

If you have any questions regarding this letter, please contact Annie Hoecker or Jill Terp of my office at (760) 431-9440.

Sincerely,



Karen A. Evans  
Assistant Field Supervisor

cc: U.S. Army Corps of Engineers (Regulatory)  
California Coastal Commission

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5-99-282-A1

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EXHIBIT 1

5-99-282-A1

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

AUG 29 2001  
CALIFORNIA  
COASTAL COMMISSION

May 25, 2001

SUBJECT: Results of Physical, Chemical, and Bioassay Testing of Sediments from Newport Bay, California  
FROM: Steven John, U.S. EPA, Wetlands Regulatory Office, Sediment Management Team  
TO: Russ Kaiser, U.S. Army Corps of Engineers, Los Angeles District, Regulatory Branch

The U.S. Environmental Protection Agency has completed its review of a report entitled Results of Physical, Chemical, and Bioassay Testing of Sediments Collected From Newport Bay, CA (April 28, 2001) prepared by MEC Analytical Systems, Inc. for the City of Newport Beach, Orange County, California. As stated in the Report, this investigation was part of an ongoing investigation of sediment quality in Newport Bay for the purposes of determining suitability of dredged materials for aquatic or ocean disposal. EPA has worked collaboratively with the City of Newport Beach and the Corps of Engineers for several rounds of testing to evaluate the suitability of the proposed Newport Bay for aquatic or ocean disposal. These evaluations are in support of small scale maintenance dredging activities to be authorized by a Regional General Permit issued by the U.S. Army Corps of Engineers. EPA's comments on the latest sediment testing follow:<sup>1</sup>

- (1) For Areas 1, 2 and 4, the bulk sediment chemistry showed non-detect to low levels of contaminants, bioassay testing revealed no significant toxicity in either the solid or suspended particulate phases, and bioaccumulation testing indicated only low levels of bioaccumulation of DDT analogues (relative to reference bioaccumulation levels);<sup>2</sup>
- (2) Area 3 displayed elevated bulk sediment chemistry levels for DDT analogues, metals and PAHs;
- (3) Area 3 composite demonstrated significant toxicity for amphipods in the solid phase testing

<sup>1</sup>EPA's review comments and suitability recommendations from previous phases of the testing of the proposed Newport Bay dredged materials are cited by reference in support of EPA's comments and recommendations for the proposed dredged materials evaluated in the subject report.

<sup>2</sup> As measurable levels of contaminants were not detected in Areas 1 and 4, compared to the slightly elevated levels in Area 2, bioaccumulation testing was conducted on Area 2 sediments only.

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(26% relative to reference level). Toxicity testing in the solid phase for mysids demonstrated 10% greater toxicity in test sediments relative to reference sediments; for the suspended particulate phase bioassay, the EC50 for mysids and fish was greater than 100%, while the EC50 for mussel larvae was 75%;

(4) Core specific toxicity testing for Area 3 (Phase II) demonstrates significant toxicity for Site 3-1 for amphipods in the solid phase testing (21% relative to reference level), no toxicity for mysids; Sites 3-2 through 3-5 did not demonstrate significant toxicity for mysids or amphipods in the solid phase;

(5) Core specific toxicity testing for Area 3 (Phase II) demonstrates no significant toxicity for any of the stations for fish or mysids (EC50 > 100%); for stations 3-2 and 3-5 no significant toxicity was noted for mussel larvae (EC50 > 100%) while sediments from sites 3-1, 3-3 and 3-4 produced toxicity with EC50 levels between 23-70% concentrations. The limiting permissible concentration (LPC) was not exceeded for any of these dredged materials;

(6) No bioaccumulation testing was conducted on any of the materials from Area 3.

Based on these observations EPA has the following conclusions and recommendations:

(1) Given the bulk sediment chemistry, bioassay, and bioaccumulation testing of the proposed dredged materials, EPA would concur that the materials within Areas 1, 2 and 4 are suitable for aquatic disposal or ocean disposal at the EPA approved LA3 ocean disposal site, provided the dredging operations comply with the special conditions of the Corps authorizing permit;

(2) Given the toxicity of materials from the Area 3 composite and the lack of bioaccumulation testing of any of the Area 3 materials (either Area 3 composite or individual core samples), EPA would not concur on aquatic or ocean disposal of any of these materials and will recommend that the Corps determine the Area 3 materials to be not suitable for aquatic or ocean disposal.<sup>3</sup>

If you have any questions about EPA's review of these sediment quality data or recommendations regarding the suitability of these materials for aquatic or ocean disposal, please contact me at 213.452.3806 or by e-mail at [john.steven@epa.gov](mailto:john.steven@epa.gov).

---

<sup>3</sup>EPA does not believe the core specific testing data included in the Report for Area 3 is adequate, particularly given the lack of bioaccumulation data, to demonstrate the suitability of any of the Area 3 material for aquatic or ocean disposal.

COASTAL COMMISSION

5-99-2PB-A1

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PAGE 2 OF 4

Melum, Tony

From: John.Steven@epamail.epa.gov  
Sent: Tuesday, July 17, 2001 9:22 AM  
To: tmelum@city.newport-beach.ca.us  
Subject: Newport Bay Sediment Data

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AUG 29 2001

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pic29740.pcx



pic04565.pcx



newport bay sediments  
rgp.wpd

Tony -- here is EPA's concurrence memo to the Coprs for the

Newport Bay materials.

Steven (213.452.3806)  
----- Forwarded by Steven John/R9/USEPA/US on 07/17/2001  
09:10 AM -----

(Embedded Steven John  
image moved 06/21/2001 08:26 AM  
to file: (Embedded image moved to file: pic04565.pcx)  
pic29740.pcx)

To: rkaiser@spl.usace.army.mil  
cc: word@olympus.net, kay@mecanalytical.com  
Subject: Newport Bay Sediment Data

Russ -- In response to EPA's May 25, 2001 comments (see the attached memo) on the April 28, 2001 report entitled Results of Physical, Chemical, and Bioassay Testing of Sediments Collected From Newport Bay, CA a Tier II evaluation of bioaccumulation projections for DDE in tissues of *Macoma nasuta* and *Nereis virens* was prepared. Results of this evaluation were forwarded to the Corps and EPA by e-mail on 6.12.01 from Dr. Jack Word (MEC Analytical Systems).

Based on this evaluation, EPA revises the recommendation presented in our May 25, 2001 memo to the Corps regarding the suitability of the proposed dredged materials from Area 3. EPA would concur on aquatic or ocean disposal of materials associated with cores 3-2, 3-3, 3-4 and 3-5. EPA would not concur on aquatic or ocean disposal for dredged materials associated with core 3-1 (based on failure of the Amphipod solid phase toxicity test). EPA recommends that the dredged materials associated with core 3-1 be delineated to include the materials between the Coast Highway bridge crossing Newport Bay to a point, at a minimum, half way between core 3-1 and core 3-2.

EPA recommendations in the May 25, 2001 memo to the Corps for suitability of dredged materials from Areas 1,2 and 4 are unchanged.

Please contact me at 213.452.3806 or by e-mail at john.steven@epa.gov if you have any questions about EPA's revised suitability recommendation.

Steven

(See attached file: newport bay sediments.rgp.wpd)

Er 8  
3 of 4

**Melum, Tony**

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**From:** John.Steven@epamail.epa.gov  
**Sent:** Monday, October 22, 2001 8:52 AM  
**To:** tmelum@city.newport-beach.ca.us; rkaiser@spl.usace.army.mil; elarsen@spl.usace.army.mil; jraives@coastal.ca.gov  
**Subject:** RGP 54 ... "aquatic disposal"

Clarification has been requested for the meaning behind EPA's concurrence for "aquatic disposal" of materials from Newport Bay subject to the requirements of Corps Regional General Permit 54.

In an April 27, 2001 memorandum to Tony Melum (with cc's to Corps, CCC, USFWS) EPA stated that it would concur on materials to be used for beneficial beach nourishment provided that the materials were 80% sand or greater (provided the materials were also determined to be chemically suitable). Specifically, EPA stated that "(I)f the material is 80% sand or greater it must be used for beneficial beach nourishment reuse. Materials that have been determined chemically suitable and that are less than 80% sand, may be disposed of in the ocean" (emphasis added).

My recollection is that the only aquatic disposal location identified in RGP 54 is for beach nourishment. EPA's concurrence on aquatic disposal is limited to those aquatic disposal locations identified in the RGP. Provided the materials in question have been determined by the Corps (with EPA concurrence) to be chemically suitable AND they are greater than 80% sand, they must be used for beach nourishment.

Please contact me at 213.452.3806 or by e-mail at john.steven@epa.gov if you have any additional questions.

Steven

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## SOUTHERN CALIFORNIA EELGRASS MITIGATION POLICY

(Adopted July 31, 1991)

Eelgrass (*Zostera marina*) vegetated areas function as important habitat for a variety of fish and other wildlife. In order to standardize and maintain a consistent policy regarding mitigating adverse impacts to eelgrass resources, the following policy has been developed by the Federal and State resource agencies (National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game). This policy should be cited as the Southern California Eelgrass Mitigation Policy (revision 8).

For clarity, the following definitions apply. "Project" refers to work performed on-site to accomplish the applicant's purpose. "Mitigation" refers to work performed to compensate for any adverse impacts caused by the "project". "Resource agencies" refers to National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game.

1. **Mitigation Need.** Eelgrass transplants shall be considered only after the normal provisions and policies regarding avoidance and minimization, as addressed in the Section 404 Mitigation Memorandum of Agreement between the Corps of Engineers and Environmental Protection Agency, have been pursued to the fullest extent possible prior to the development of any mitigation program.

2. **Mitigation Map.** The project applicant shall map thoroughly the area, distribution, density and relationship to depth contours of any eelgrass beds likely to be impacted by project construction. This includes areas immediately adjacent to the project site which have the potential to be indirectly or inadvertently impacted as well as areas having the proper depth and substrate requirements for eelgrass but which currently lack vegetation.

Protocol for mapping shall consist of the following format:

1) Coordinates

Horizontal datum - Universal Transverse Mercator (UTM), NAD 83, Zone 11

Vertical datum - Mean Lower Low Water (MLLW), depth in feet.

2) Units

Transects and grids in meters.

Area measurements in square meters/hectares.

**COASTAL COMMISSION**

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All mapping efforts must be completed during the active growth phase for the vegetation (typically March through October) and shall be valid for a period of 120 days with the exception of surveys completed in August - October.

A survey completed in August - October shall be valid until the resumption of active growth (i.e., March 1). After project construction, a post-project survey shall be completed within 30 days. The actual area of impact shall be determined from this survey.

3. **Mitigation Site.** The location of eelgrass transplant mitigation shall be in areas similar to those where the initial impact occurs. Factors such as, distance from project, depth, sediment type, distance from

ocean connection, water quality, and currents are among those that should be considered in evaluating potential sites.

**4. Mitigation Size.** In the case of transplant mitigation activities that occur concurrent to the project that results in damage to the existing eelgrass resource, a ratio of 1.2 to 1 shall apply. That is, for each square meter adversely impacted, 1.2 square meters of new suitable habitat, vegetated with eelgrass, must be created. The rationale for this ratio is based on, 1) the time (i.e., generally three years) necessary for a mitigation site to reach full fishery utilization and 2) the need to offset any productivity losses during this recovery period within five years. An exception to the 1.2 to 1 requirement shall be allowed when the impact is temporary and the total area of impact is less than 100 square meters. Mitigation on a one-for-one basis shall be acceptable for projects that meet these requirements (see section 11 for projects impacting less than 10 square meters).

Transplant mitigation completed three years in advance of the impact (i.e., mitigation banks) will not incur the additional 20% requirement and, therefore, can be constructed on a one-for-one basis. However, all other annual monitoring requirements (see sections 8-9) remain the same irrespective of when the transplant is completed.

Project applicants should consider increasing the size of the required mitigation area by 20-30% to provide greater assurance that the success criteria, as specified in Section 9, will be met. In addition, alternative contingent mitigation must be specified, and included in any required permits, to address situation where performance standards (see section 9) are not met.

**5. Mitigation Technique.** Techniques for the construction and planting of the eelgrass mitigation site shall be consistent with the best available technology at the time of the project. Donor material shall be taken from the area of direct impact whenever possible, but also should include a minimum of two additional distinct sites to better ensure genetic diversity of the donor plants. No more than 10% of an existing bed shall be harvested for transplanting purposes. Plants harvested shall be taken in a manner to thin an existing bed without leaving any noticeable bare areas. Written permission to harvest donor plants must be obtained from the California Department of Fish and Game.

Plantings should consist of bare-root bundles consisting of 8-12 individual turions. Specific spacing of transplant units shall be at the discretion of the project applicant. However, it is understood that whatever techniques are employed, they must comply with the stated requirements and criteria.

**6. Mitigation Timing.** For off-site mitigation, transplanting should be started prior to or concurrent with the initiation of in-water construction resulting in the impact to the eelgrass bed. Any off-site mitigation project which fails to initiate transplanting work within 135 days following the initiation of the in-water construction resulting in impact to the eelgrass bed will be subject to additional mitigation requirements as specified in section 7. For on-site mitigation, transplanting should be postponed when construction work is likely to impact the mitigation. However, transplanting of on-site mitigation should be started no later than 135 days after initiation of in-water construction activities. A construction schedule which includes specific starting and ending dates for all work including mitigation activities shall be provided to the resource agencies for approval at least 30 days prior to initiating in-water construction.

**7. Mitigation Delay.** If, according to the construction schedule or because of any delays, mitigation cannot be started within 135 days of initiating in-water construction, the eelgrass replacement mitigation obligation shall increase at a rate of seven percent for each month of delay. This increase is necessary to ensure that all productivity losses incurred during this period are sufficiently offset within five years.

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2 of 4

**8. Mitigation Monitoring.** Monitoring the success of eelgrass mitigation shall be required for a period of five years for most projects. Monitoring activities shall determine the area of eelgrass and density of plants at the transplant site and shall be conducted at 3, 6, 12, 24, 36, 48, and 60 months after completion of the transplant. All monitoring work must be conducted during the active vegetative growth period and shall avoid the winter months of November through February. Sufficient flexibility in the scheduling of the 3 and 6 month surveys shall be allowed in order to ensure the work is completed during this active growth period. Additional monitoring beyond the 60 month period may be required in those instances where stability of the proposed transplant site is questionable or where other factors may influence the long-term success of transplant.

The monitoring of an adjacent or other acceptable control area (subject to the approval of the resource agencies) to account for any natural changes or fluctuations in bed width or density must be included as an element of the overall program.

A monitoring schedule that indicates when each of the required monitoring events will be completed shall be provided to the resource agencies prior to or concurrent with the initiation of the mitigation.

Monitoring reports shall be provided to the resource agencies within 30 days after the completion of each required monitoring period.

**9. Mitigation Success.** Criteria for determination of transplant success shall be based upon a comparison of vegetation coverage (area) and density (turions per square meter) between the project and mitigation sites. Extent of vegetated cover is defined as that area where eelgrass is present and where gaps in coverage are less than one meter between individual turion clusters. Density of shoots is defined by the number of turions per area present in representative samples within the control or transplant bed. Specific criteria are as follows:

- a. a minimum of 70 percent area of eelgrass bed and 30 percent density after the first year.
- b. a minimum of 85 percent area of eelgrass bed and 70 percent density after the second year.
- c. a sustained 100 percent area of eelgrass bed and at least 85 percent density for the third, fourth and fifth years.

Should the required eelgrass transplant fail to meet the established criteria, then a Supplementary Transplant Area (STA) shall be constructed, if necessary, and planted. The size of this STA shall be determined by the following formula:

$$STA = MTA \times (|A_t + D_t| - |A_c + D_c|)$$

MTA = mitigation transplant area.

$A_t$  = transplant deficiency or excess in area of coverage criterion (%).

$D_t$  = transplant deficiency in density criterion (%).

$A_c$  = natural decline in area of control (%).

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3 94

$D_c$  = natural decline in density of control (%).

Four conditions apply:

- 1) For years 2-5, an excess of only up to 30% in area of coverage over the stated criterion with a density of at least 60% as compared to the project area may be used to offset any deficiencies in the density criterion.
- 2) Only excesses in area criterion equal to or less than the deficiencies in density shall be entered into the STA formula.
- 3) Densities which exceed any of the stated criteria shall not be used to offset any deficiencies in area of coverage.
- 4) Any required STA must be initiated within 120 days following the monitoring event that identifies a deficiency in meeting the success criteria. Any delays beyond 120 days in the implementation of the STA shall be subject to the penalties as described in Section 7.

**10. Mitigation Bank.** Any mitigation transplant success that, after five years, exceeds the mitigation requirements, as defined in section 9, may be considered as credit in a "mitigation bank". Establishment of any "mitigation bank" and use of any credits accrued from such a bank must be with the approval of the resource agencies and be consistent with the provisions stated in this policy. Monitoring of any approved mitigation bank shall be conducted on an annual basis until all credits are exhausted.

**11. Exclusions.**

- 1) Placement of a single pipeline, cable, or other similar utility line across an existing eelgrass bed with an impact corridor of no more than ½ meter wide may be excluded from the provisions of this policy with concurrence of the resource agencies. After project construction, a post-project survey shall be completed within 30 days and the results shall be sent to the resource agencies. The actual area of impact shall be determined from this survey. An additional survey shall be completed after 12 months to insure that the project or impacts attributable to the project have not exceeded the allowed ½ meter corridor width. Should the post-project or 12 month survey demonstrate a loss of eelgrass greater than the ½ meter wide corridor, then mitigation pursuant to sections 1-11 of this policy shall be required.
- 2) Projects impacting less than 10 square meters. For these projects, an exemption may be requested by a project applicant from the mitigation requirements as stated in this policy, provided suitable out-of-kind mitigation is proposed. A case-by-case evaluation and determination regarding the applicability of the requested exemption shall be made by the resource agencies.

( last revised 2/2/99)

- 
- Policies
  - Habitat Conservation
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  - Southwest Region Home
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**§ 227.11**

**40 CFR Ch. I (7-1-01 Edition)**

**§ 227.11 Containerized wastes.**

(a) Wastes containerized solely for transport to the dumping site and expected to rupture or leak on impact or shortly thereafter must meet the appropriate requirements of §§ 227.6, 227.7, 227.8, 227.9, and 227.10.

(b) Other containerized wastes will be approved for dumping only under the following conditions:

(1) The materials to be disposed of decay, decompose or radiodecay to environmentally innocuous materials within the life expectancy of the containers and/or their inert matrix; and

(2) Materials to be dumped are present in such quantities and are of such nature that only short-term localized adverse effects will occur should the containers rupture at any time; and

(3) Containers are dumped at depths and locations where they will cause no threat to navigation, fishing, shorelines, or beaches.

**§ 227.12 Insoluble wastes.**

(a) Solid wastes consisting of inert natural minerals or materials compatible with the ocean environment may be generally approved for ocean dumping provided they are insoluble above the applicable trace or limiting permissible concentrations and are rapidly and completely settleable, and they are of a particle size and density that they would be deposited or rapidly dispersed without damage to benthic, demersal, or pelagic biota.

(b) Persistent inert synthetic or natural materials which may float or remain in suspension in the ocean as prohibited in paragraph (d) of § 227.5 may be dumped in the ocean only when they have been processed in such a fashion that they will sink to the bottom and remain in place.

**§ 227.13 Dredged materials.**

(a) Dredged materials are bottom sediments or materials that have been dredged or excavated from the navigable waters of the United States, and their disposal into ocean waters is regulated by the U.S. Army Corps of Engineers using the criteria of applicable sections of parts 227 and 228. Dredged material consists primarily of natural sediments or materials which may be

contaminated by municipal or industrial wastes or by runoff from terrestrial sources such as agricultural lands.

(b) Dredged material which meets the criteria set forth in the following paragraphs (b)(1), (2), or (3) of this section is environmentally acceptable for ocean dumping without further testing under this section:

(1) Dredged material is composed predominantly of sand, gravel, rock, or any other naturally occurring bottom material with particle sizes larger than silt, and the material is found in areas of high current or wave energy such as streams with large bed loads or coastal areas with shifting bars and channels; or

(2) Dredged material is for beach nourishment or restoration and is composed predominantly of sand, gravel or shell with particle sizes compatible with material on the receiving beaches; or

(3) *When:* (i) The material proposed for dumping is substantially the same as the substrate at the proposed disposal site; and

(ii) The site from which the material proposed for dumping is to be taken is far removed from known existing and historical sources of pollution so as to provide reasonable assurance that such material has not been contaminated by such pollution.

(c) When dredged material proposed for ocean dumping does not meet the criteria of paragraph (b) of this section, further testing of the liquid, suspended particulate, and solid phases, as defined in § 227.32, is required. Based on the results of such testing, dredged material can be considered to be environmentally acceptable for ocean dumping only under the following conditions:

(1) The material is in compliance with the requirements of § 227.6; and

(2)(i) All major constituents of the liquid phase are in compliance with the applicable marine water quality criteria after allowance for initial mixing; or

(ii) When the liquid phase contains major constituents not included in the applicable marine water quality criteria, or there is reason to suspect synergistic effects of certain contaminants, bioassays on the liquid phase

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the dredged material show that it can be discharged so as not to exceed the limiting permissible concentration as defined in paragraph (a) of §227.27; and

(3) Bioassays on the suspended particulate and solid phases show that it can be discharged so as not to exceed the limiting permissible concentration as defined in paragraph (b) of §227.27.

(d) For the purposes of paragraph (c)(2) of this section, major constituents to be analyzed in the liquid phase are those deemed critical by the District Engineer, after evaluating and considering any comments received from the Regional Administrator, and considering known sources of discharges in the area.

### Subpart C—Need for Ocean Dumping

#### §227.14 Criteria for evaluating the need for ocean dumping and alternatives to ocean dumping.

This subpart C states the basis on which an evaluation will be made of the need for ocean dumping, and alternatives to ocean dumping. The nature of these factors does not permit the promulgation of specific quantitative criteria of each permit application. These factors will therefore be evaluated if applicable for each proposed dumping on an individual basis using the guidelines specified in this subpart C.

#### §227.15 Factors considered.

The need for dumping will be determined by evaluation of the following factors:

(a) Degree of treatment useful and feasible for the waste to be dumped, and whether or not the waste material has been or will be treated to this degree before dumping;

(b) Raw materials and manufacturing or other processes resulting in the waste, and whether or not these materials or processes are essential to the provision of the applicant's goods or services, or if other less polluting materials or processes could be used;

(c) The relative environmental risks, impact and cost for ocean dumping as opposed to other feasible alternatives including but not limited to:

(1) Land fill;

(2) Well injection;

(3) Incineration;

(4) Spread of material over open ground;

(5) Recycling of material for reuse;

(6) Additional biological, chemical, or physical treatment of intermediate or final waste streams;

(7) Storage.

(d) Irreversible or irretrievable consequences of the use of alternatives to ocean dumping.

#### §227.16 Basis for determination of need for ocean dumping.

(a) A need for ocean dumping will be considered to have been demonstrated when a thorough evaluation of the factors listed in §227.15 has been made, and the Administrator, Regional Administrator or District Engineer, as the case may be, has determined that the following conditions exist where applicable:

(1) There are no practicable improvements which can be made in process technology or in overall waste treatment to reduce the adverse impacts of the waste on the total environment;

(2) There are no practicable alternative locations and methods of disposal or recycling available, including without limitation, storage until treatment facilities are completed, which have less adverse environmental impact or potential risk to other parts of the environment than ocean dumping.

(b) For purposes of paragraph (a) of this section, waste treatment or improvements in processes and alternative methods of disposal are practicable when they are available at reasonable incremental cost and energy expenditures, which need not be competitive with the costs of ocean dumping, taking into account the environmental benefits derived from such activity, including the relative adverse environmental impacts associated with the use of alternatives to ocean dumping.

(c) The duration of permits issued under subchapter H and other terms and conditions imposed in those permits shall be determined after taking into account the factors set forth in this section. Notwithstanding compliance with subparts B, D, and E of this part 227 permittees may, on the basis

**CAULERPA CONTROL PROTOCOL**  
(Version 1.0, adopted September 18, 2001)

**A. Background Information:**

*Caulerpa taxifolia* is a green alga native to tropical waters that typically grows

in limited patches. A particularly tolerant clone of this species has already proven to be highly invasive in the Mediterranean Sea and efforts to control its spread have been unsuccessful. In areas where the species has become well established, it has caused ecological and economic devastation by overgrowing and eliminating native seaweeds, seagrasses, reefs, and other communities. In the Mediterranean, it is reported to have harmed tourism and pleasure boating, devastated recreational diving, and had a significant impact on commercial fishing both by altering the distribution of fish as well as creating a considerable impediment to net fisheries.

This alga poses a substantial threat to marine ecosystems Southern California, particularly to the extensive eelgrass meadows and other benthic environments that make coastal waters such a rich and productive environment for fish and birds. The eelgrass beds and other coastal resources that could be directly impacted by an invasion of *Caulerpa* are part of a food web that is critical to the survival of numerous native marine species including the commercially and recreationally important spiny lobster, California halibut, and sand basses.

Currently, *Caulerpa taxifolia* has been detected in two locations in southern California. In order to minimize the spread and introduction of this species and other potentially invasive species of this genus to other systems, the following provisions have been established.

**B. Definitions:**

Area of Potential Effect (APE) - the area surrounding an authorized project site that could be affected by activities related to the implementation of the project work. This includes the project footprint, areas where equipment is stored, areas where vessel prop-wash could occur in association with work, or in-water disposal areas used by the project. It does not include EPA designated deep-ocean disposal sites.

High Growth Period - May 1 to September 30.

Infected System - any bay, harbor, estuary, or lagoon in which *Caulerpa* has been identified shall be deemed an infected system regardless of where the infestation occurs geographically within the system. Following eradication and subsequent verification surveillance for two years, an infected system may be re-designated as a *Caulerpa* Free System by the National Marine Fisheries Service (NMFS) and California Department of Fish and Game (CDFG).

NMFS/CDFG Contacts - the designated federal and state agency contacts for submittal of survey reports and reports of *Caulerpa* findings. All submitted material must be provided to these agencies at the following addresses:

**National Marine Fisheries Service**  
**Southwest Regional Office**  
501 West Ocean Boulevard, Suite 4200  
Long Beach, CA 90802  
Attn: Robert Hoffman

**Calif. Dept. of Fish & Game**  
**South Coast Region**  
4949 Viewridge Drive  
San Diego, CA 92124  
Attn: William Paznokas

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ph.: (562) 980-4043  
fx.: (562) 980-4092  
e-mail: [Bob.Hoffman@noaa.gov](mailto:Bob.Hoffman@noaa.gov)

ph.: (858) 467-4218  
fx.: (858) 467-4299  
e-mail: [wpaznokas@dfg.ca.gov](mailto:wpaznokas@dfg.ca.gov)

Survey Area - the area over which surveys are conducted, typically synonymous with the Area of Potential Effect.

Survey Level - the level of intensity of the survey within the survey area. Survey levels are defined as either:

*Surveillance* - General survey coverage providing a systematic sub-sampling of an area over which at least 20% of the bottom is inspected and widespread occurrences of *Caulerpa* would be expected to be identified if present.

*High Intensity Surveillance* - High level of survey using a systematic survey approach involving direct visual observations using divers or towed cameras. Under a high intensity surveillance, a one meter or less separation between adjacent survey lines is conducted, however, survey efforts generally progress at a constant speed. This survey method generally provides for an estimated 50+% visual cover of the bottom depending upon visibility and other complicating factors.

*Eradication Area Surveys* - Under this survey level, visual searches using divers are conducted systematically to ensure 95+% viewing of the study area. Divers move at a rate appropriate to the site conditions to ensure that all areas are comprehensively searched irrespective of site conditions which may complicate surveys.

### C. Reporting Requirements:

Surveys conducted in accordance with requirements outlined in this document shall be submitted to the NMFS/CDFG Contacts within 15 days of completion of each survey. Surveys shall be submitted on the attached survey form or in a suitable reproduction of the form fields.

If *Caulerpa* is identified at a permitted project site during a survey or at any other time prior, during, or within 120 days after completion of authorized activities, the NMFS/CDFG Contacts shall be contacted within 24 hours of first noting the occurrence.

For survey actions requiring input or coordination with NMFS/CDFG Contacts, please provide information in a timely fashion and allow at least 5 working days for agency coordination and feedback.

### D. Surveys within *Caulerpa* Free System:

1. Prior to initiation of any permitted activities, a pre-construction survey of the project APE shall be conducted to determine the presence or absence of *Caulerpa taxifolia*. Survey work shall be completed not earlier than 90 days prior to planned construction and not later than 30 days prior to construction.
2. The results of that survey shall be transmitted to NMFS and CDFG at least 15 days prior to initiation of proposed work and shall include submittal of the completed survey reporting form (see attached).
3. In the event that *Caulerpa* is detected within the area of potential effects, then no work shall be conducted until such time as the infestation has been isolated, treated and the risk of spread is eliminated

in accordance with section F.

4. Exemptions - Individual, privately owned boat docks and related structures are exempt from provisions 1-3 of this section when such facilities are found in *Caulerpa* Free Systems and permitted activities are limited to structural repairs, replacement, modification, and pile driving and do not include dredging or other significant bottom disturbing activities.

#### **E. Surveys within Infected Systems:**

The following survey conditions shall apply to in-water projects within systems where *Caulerpa taxifolia* has been identified.

Prior to initiation of any permitted activities within an infected system, two surveys, initiated not less than 60 days apart, shall be conducted within the project Area of Potential Effect during the high growth period for *Caulerpa taxifolia* in southern California (1 May through 30 September). The first survey may be conducted using High Intensity Surveillance techniques, however, the second survey must be conducted using Eradication Area Surveys.

At least one survey must be conducted within 45 days of initiation of dredging. This survey could be the second survey conducted during the high growth period or may be a subsequent survey conducted prior to initiation of dredging. Thus, a total of up to three pre-project surveys may be required depending on the timing of the dredging. This survey shall be conducted at a High Intensity Surveillance or Eradication Area Survey level as warranted dependent upon site circumstances and proximity to infestations as determined by the NMFS/CDFG Contacts. To determine appropriate survey level, please contact the NMFS/CDFG Contacts with project specific information.

If bottom disturbing project activities extend for over 90 calendar days, those areas that would experience further bottom disturbance in subsequent periods of activity must be surveyed using High Intensity Surveillance techniques within 15 days following the first 90 days. This process shall be repeated for areas remaining to be effected following each subsequent 90 day period during which bottom disturbing activities are occurring.

#### **F. If *Caulerpa* is Found:**

If *Caulerpa* is found, then the NMFS/CDFG Contacts shall be notified within 24 hours of the discovery.

All *Caulerpa* assessment and treatment shall be conducted under the auspices of the CDFG and NMFS as the state and federal lead agencies for implementation of *Caulerpa* eradication in California.

Within 96 hours of notification, the extent of the *Caulerpa* infestation within the project APE shall be fully documented. Immediately thereafter, the infested areas shall be securely contained using PVC liners and treated with surface applications of slow release chlorine pucks in an even distribution under the lined area and a 5% or higher sodium hypochlorite solution injected under the liners to kill the *Caulerpa taxifolia*. Hypochlorite solution must also be injected into the sediment to a depth of at least 20 centimeters within a 3-meter radius of the known *Caulerpa* location. Sediment injection shall be done through a pressurized chlorination system with injections being spaced no farther apart than 20 centimeters and consisting of not less than 500 milliliters of solution per injection point. Subsequent injections may be made if practical and warranted based on the consistency of the sediment and total organic load under the liners. This eradication technique is subject to change at the discretion of NMFS and CDFG.

If it is determined that the liner contained and treated material is in no danger of being released by the activities permitted within the APE, then the liners shall be left in place until the ultimate disposition of the treatment site may be determined and measures may be taken in accordance with best available eradication practices available at the time. However, if it is determined that liner contained and treated *Caulerpa* has the potential to be released by activities within the APE, then the following measures shall be implemented prior to conducting permitted work:

Not earlier than two weeks following treatment, a minimum of six sediment cores are to be taken to a depth of 20 cm from within the treated patches to search for viable alga fragments. Cores shall be examined and tested for viability at an authorized off-site facility. The precise procedures for the number of cores and testing of viability shall be determined on a case-by-case basis in consultation with NMFS and CDFG. If materials are found to continue to support viable alga, additional sampling shall be conducted two weeks later and additional treatment may be implemented.

b) When tested core materials are determined to be free of viable fragments, then surface sediments from within the treated site are to be extracted to a depth of 25 cm treated and disposed of as follows:

Within 30 days following confirmation of no viability in tested cores, the treatment area shall be surrounded by a containment screen of no greater porosity than 0.5 mm and the liner cover shall be removed.

The surface sediments within the containment area shall be removed to a depth of 25 centimeters using a diver-assisted suction dredge.

3) Material, including return water, shall be pumped into a chlorination tank and maintained at a concentration of 0.5% chlorine for a period of not less than 6 hours prior to upland disposal of treated material or other authorized disposal alternatives.

5. If dredged material is to be removed from the APE and placed elsewhere in the marine environment, then no sooner than 60 days after completion of the dredged area and disposal site, during the next high growth period, the applicant shall conduct a Surveillance level survey of any disposal areas except where material is disposed of within an existing EPA designated deep ocean disposal site. The specific survey requirements will be determined by NMFS and CDFG on a case by case basis.

This policy does not vacate any additional restrictions on the handling, transport, or disposal of *Caulerpa* that may apply at the time of permit issuance or in the future. It is incumbent upon the permittee to comply with any other applicable State or Federal regulations, restrictions or changes to the Protocol that may be in effect at the time of initiation of authorized activities.

## **Caulerpa Survey Reporting Form (Version 1.0, September 18, 2001)**

This form is required to be submitted for any surveys conducted for the invasive exotic alga *Caulerpa taxifolia* that are required to be conducted under federal or state permits and authorizations issued by the U.S. Army Corps of Engineers or Regional Water Quality Control Boards (Regions 8 & 9). The form has been designed to assist in controlling the costs of reporting while ensuring that the required information necessary to identify and control any potential impacts of the authorized actions on the spread of *Caulerpa*. Surveys required to be conducted for this species are subject to modification through publication of revisions to the *Caulerpa* survey policy. It is incumbent upon the authorized

permittee to ensure that survey work is following the latest protocols. For further information on these protocols, please contact: Robert Hoffman, National Marine Fisheries Service, (562) 980-4043, or William Paznokas, California Department of Fish & Game, (858) 467-4218).

<b>Site Name:</b> (common reference)		
<b>Survey Contact:</b> (name, phone, e-mail)		
<b>Permit Reference:</b> (ACOE Permit No., RWQCB Order or Cert. No.)		
<b>Hydrographic System:</b> (bay, estuary, lagoon, or harbor)		
<b>Specific Location:</b> (UTM, Lat./Long., datum, accuracy level, attach electronic survey area map if possible)		
<b>Was <i>Caulerpa</i> Detected:</b> (if <i>Caulerpa</i> is found, please immediately contact the permitting agency project staff and NMFS or CDFG personnel identified above)	_____ <b>Yes, <i>Caulerpa</i> was found at this site and</b>  _____ <b>has been contacted on _____ date.</b>  _____ <b>No, <i>Caulerpa</i> was not found at this site.</b>	
<b>Description of Permitted Work:</b> (describe briefly the work to be conducted at the site under the permits identified above)		
<b>Description of Site:</b> (describe the physical and biological conditions within the survey area at the time of the survey and provide insight into variability, if known. Please provide units for all numerical information).	Depth range:	

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	<i>Substrate type:</i>	
	<i>Temperature:</i>	
	<i>Salinity:</i>	
	<i>Dominant flora:</i>	
	<i>Dominant fauna:</i>	
	<i>Exotic species encountered:</i>	
	<i>Other site description notes:</i>	
<p><b>Description of Survey Effort:</b>                  (please describe the surveys conducted including type of survey (SCUBA, remote video, etc.) and survey methods employed, date of work, and survey density (estimated percentage of the bottom actually viewed). Describe any limitations encountered during the survey efforts.</p>	<i>Survey date and time period:</i>	
	<i>Horizontal visibility in water:</i>	
	<i>Survey type and methods:</i>	

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	<i>Survey personnel:</i>	
	<i>Survey density:</i>	
	<i>Survey limitations:</i>	
<p><b>Other Information:</b>                  (use this space to provide any additional information or references to attached materials such as maps, reports, etc.)</p>		

Caulerpa Survey Reporting Form (version 1.0, 9/18/01)

- [Caulerpa Eradication in Southern California](#)
- [Southwest Region Home Page](#)

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