CALIFORNIA COASTAL COMMISSION
South Coast Area Office
200 Oceangate, Suite 1000
Long Beach, CA 90802-4302
(562) 590-5071

Th13c

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STAFF REPORT: REGULAR CALENDAR

Application No.:	**5-15-2056**
Applicant:	**City of San Clemente**
Location:	North Beach and Linda Lane Beach
Project Description:	Five-year opportunistic beach sand replenishment program with a 200,000 cu. yds. maximum annual beach fill placement volume at two potential beach receiver sites.
Staff Recommendation:	Approval with Conditions

SUMMARY OF STAFF RECOMMENDATION:

The City of San Clemente proposes to extend a previously approved, now expired, opportunistic beach sand replenishment program to allow for the processing of multiple beach replenishment projects at two receiver beach sites, North Beach and Linda Lane Beach, during a five-year period. The City developed a detailed program and set of criteria for potential beach replenishment projects that may arise over the next 5 years. Projects that fall within the program parameters (including maximum amounts of sand, deposition methods, and grain size criteria) and are found by the Executive Director to be consistent with the subject permit would be allowed to proceed without additional approval from the Commission. Projects which do not meet the program criteria or which raise potential for impacts to coastal resources, would require a separate coastal development permit approval by the Commission.

In 2004, the City of San Clemente obtained coastal development permit (CDP) #5-02-142 to implement an opportunistic beach replenishment program. The beach replenishment program allowed for placement of 300,000 cubic yards (cu. yds.) of sand annually for a five year period along the city shoreline at four (4) different beach receiver sites. The program was designed to capitalize on opportunities to obtain surplus sand from upland construction, development, or dredging projects, as they arose, and to place the sand along the shoreline instead of losing the material to an inland disposal site. As approved, projects that fell within the program parameters,

which included maximum amounts of sand, deposition methods, seasonal placement restrictions, and grain size criteria, could be found by the Executive Director to be consistent with the subject permit and allowed to proceed without additional approval from the Commission. During the original five year period of the beach replenishment program, one project at North Beach was executed per the permit requirements. In 2009, the Commission issued another 5-year extension to the program with no changes. However, no suitable sand opportunities arose between 2009 and 2015 and the CDP expired.

The City of San Clemente is currently requesting the Commission authorize a new CDP for the beach replenishment program for another five year period with two modifications to the original program. The City proposes to reduce the amount of sand from 300,000 cu. yds. of sand annually to 200,000 cu. yds. and to reduce the number of receiver sites from four beach sites to two beach sites.

As proposed, the City will implement all projects constructed under this beach replenishment program consistent with the parameters as detailed in the preliminary Project Notification Report and Monitoring Plan (**Exhibit 1**). The Project Notification Report includes a framework that will be submitted for review by the Executive Director of the Commission prior to implementation of each beach replenishment project; such as: parameters for maximum sand placement volumes, sand placement methods, seasonal restrictions on sand placement, physical and chemical sand parameters, trash and debris management, transport and traffic management, water quality best management practices, and public notification. Also, included in the Project Notification Report is a summary of past and foreseeable beach replenishment projects in the City identification of the report submittal requirements, and an assumption of risk statement for each beach replenishment project. The Project Notification Report further details the pre-, during, and post-construction monitoring requirements for each beach replenishment project. Additionally, the submitted Monitoring Plan provides details regarding proposed surfing, turbidity, sand grain size and sand contaminants, traffic, and trash and debris monitoring. **Special Condition 1** requires the applicant supplement the pre-construction surf monitoring from the proposed 2-week time frame to 2-months (a requirement added for the most recent opportunistic beach replenishment program CDP 6-15-0986 [Oceanside]). As proposed, analysis provided in the post-construction reports will serve as the basis for any modifications to the program that may include more intensive monitoring requirements for future projects.

Special Condition 2 informs the City that all other development proposals that may be involved in obtaining the sand source for beach replenishment, including but not limited to non-exempt grading, new construction or dredging, if located within the Coastal Zone, shall require the approval of the Coastal Commission through a coastal development permit or an amendment to this permit, unless such development is exempt from permit requirements under the Coastal Act and its implementing regulations.

Special Condition 3 authorizes the beach replenishment program for a five-year period; and notifies the City that this permit is only for the placement of sand on the designated receiver beaches and that if the sand is sourced from within the Coastal Zone, a separate CDP or amendment will be required.

The proposed beach nourishment program is consistent with and implements many of the recommendations of the Commission's recently approved Sea Level Rise Policy Guidance document (SLR Guidelines). Sea level rise will result in changes to sediment availability on California beaches. Higher water levels and changing precipitation patterns could change erosion and deposition patterns. Loss of sediment could worsen beach erosion and possibly increase the need for beach nourishment and decrease the effectiveness of beach nourishment if sand is quickly washed away after being placed. Beach nourishment is a "soft" armoring solution which can help to protect a coastline from coastal hazards without the need for a permanent shoreline protective device. The Commission's SLR Guidelines recommend that local jurisdictions establish beach nourishment programs and protocols. The subject beach nourishment program includes many of the suggested protocols, including criteria for design, construction and management of the nourishment area, sand compatibility specifications, seasonal restrictions, and identification of environmentally preferred locations for deposits. The SLR Guidance suggests that the Commission produce additional guidance documents related to beach nourishment. The monitoring results of the proposed program will further the Commission's understanding of beach nourishment projects and be useful in refining future beach nourishment programs throughout the state.

The project has been designed and conditioned to avoid impacts to sensitive habitat, public access and recreation, and as conditioned, no adverse impacts to coastal resources are anticipated.

Staff is recommending **approval** of the proposed coastal development permit as conditioned.

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APPENDICES

EXHIBITS

I. MOTION AND RESOLUTION

Motion:

*I move that the Commission **approve** Coastal Development Permit Application No. 5-15-2056 pursuant to the staff recommendation.*

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

Resolution:

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

II. STANDARD CONDITIONS:

This permit is granted subject to the following standard conditions:

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

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

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

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

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

III. SPECIAL CONDITIONS:

This permit is granted subject to the following special conditions:

1. Revised Monitoring Plan. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the City shall submit for review and approval by the Executive Director, a final Monitoring Plan in substantial conformance with the preliminary Monitoring Report Template (attached as **Exhibit 1, Item 4**) but shall be revised to include the following:

    1. Modify monitoring methods in Section 2.3 Surfing/Recreation to document morning surf conditions three times per week for 2 months (8 weeks) prior to beach fill instead of the proposed surf monitoring of once weekly for 2 weeks; and continue to monitor for 8 weeks following beach replenishment activities;

    2. Include a provision for large notification sign(s) (minimum 2' x 3') on the beach receiver site beginning two weeks prior to start of a replenishment project with a description of the project and contact information for any questions or comments. The sign(s) will be maintained in place during all placement activities.

2. **Approval of Excavation/Dredging Site.** The subject permit is only for sand replenishment projects. All other development proposals that may be involved in obtaining the sand source, including but not limited to non-exempt grading, new construction or dredging, if located within the Coastal Zone, shall require the approval of the Coastal Commission or the applicable local government through a coastal development permit or an amendment to this permit, unless such development is exempt from permit requirements under the Coastal Act and its implementing regulations.

3. **Scope and Term of Permit Approval.** The development authorized by this CDP is limited to beach nourishment that is consistent with the project limits identified in the preliminary Project Notification Report including, but not limited to, the placement sites, maximum quantities of beach nourishment, seasonal limitations on placement, and methods of delivery. The authorization for continuing development pursuant to this permit amendment shall expire five years from the date of Commission approval of CDP No. 5-15-2056.

IV. FINDINGS AND DECLARATIONS:

A. PROJECT LOCATION & DESCRIPTION

The City of San Clemente has approximately 4.6 miles of coastline. The City of San Clemente proposes to extend a previously approved, now expired, opportunistic beach sand replenishment

program to allow for the processing of multiple beach replenishment projects during a five-year period. The proposed program would allow for the placement of a maximum combined total of approximately 200,000 cubic yards of beach quality material per year at two City beaches, North Beach, just south of the San Clemente Metrolink train station and at the terminus of Avenida Pico, extending a distance of 1,500 feet; and Linda Lane Beach, located south of Mariposa Point and north of the City pier, extending a distance of 1,500 feet (**Exhibit 3**).

As proposed, the City would submit a Project Notification Report (**Exhibit 1, Item 3**) for each proposed opportunistic sand project during the five year period to the Executive Director for review and written approval before commencement of an individual project. The subject permit is intended to expedite the implementation of beach sand replenishment projects over the next five years by establishing a set of detailed and rigorous criteria and parameters under which future potential sand sources could be evaluated. If a particular sand source meets the criteria, placement of that sand will be able to be approved by the Executive Director under the subject permit. If any particular sand source falls outside the criteria outlined herein, or any other potential risks to coastal resources not identified and discussed in this report were identified by Commission staff, a separate CDP or amendment would be required. The program is designed to capitalize on opportunities to obtain surplus sand from upland construction, development, or dredging projects, as they arise, and to place the sand along the shoreline through a streamlined process, instead of losing the material to an inland disposal site due to the sometimes lengthy processing time for necessary permits from the various agencies.

In 2004, the City of San Clemente obtained coastal development permit (CDP) #5-02-142 to implement an opportunistic beach replenishment program . The beach replenishment program allowed for placement of 300,000 cubic yards (cu. yds.) of sand annually for a five year period along the city shoreline at four (4) different beach receiver sites. During the original five year period of the beach replenishment program, one project at North Beach was executed per the permit requirements. In 2009, the Commission issued another 5-year extension to the program with no changes. However, no suitable sand opportunities arose between 2009 and 2015 and the CDP expired.

The City of San Clemente is now requesting the Commission authorize a new CDP for the beach replenishment program for another five year period with two modifications to the previously approved beach replenishment program: The City proposes to reduce the amount of sand from 300,000 cu. yds. of sand annually to 200,000 cu. yds. and to reduce the number of receiver sites from four beach sites to two beach sites all other program criteria is proposed to remain the same. The North Beach fill site may receive a max of 125,000 cu. yds. and Linda Lane Beach fill site may receive a max of 75,000 cu. yds. per year. The sand criteria previously approved would remain unchanged, sand review includes an assessment of possible pollutants, contaminants, grain size, color, and particle shape. The max portion of fine-grained particles to be placed on the beach would also remain the same as the previously approved beach replenishment program, 25% fine grained particles and 75% sand.

Beach sand would be placed either below the mean high tide line, as a layer over the beach surface as a berm, or as a dike along the toe of the existing revetment that protects the railway in this area, depending on the particular site and time of placement. Transport to the fill site would be by truck. Conventional earth moving equipment would be used to spread the sand on the beach. In the event

that suitable sand was available but site or timing constraints precluded immediate placement on the beach, sand would be stored at a stockpile site until an appropriate time and approval had been obtained for placement at a beach site. Since the program may involve placing sand below the mean ordinary high water mark line, a lease from the California State Lands Commission is required.

As proposed, opportunistic beach sand replenishment program is set up so that the bulk of the testing and review of potential sand sources would take place at the City of San Clemente prior to the project even being submitted to Commission staff. All potential sand projects would have to undergo three stages of project review at the City.

Stage 1 – Minimum Sand Criteria Acceptability
Review of the potential sand source material against a detailed Minimum Criteria Acceptability checklist (see **Exhibit 1, Item 2**). The review includes an assessment of possible pollutants, contaminants, grain size, color, and particle shape. The maximum proportion of fine-grained particles (or fines, defined as silts and clays passing through the number 200 sieve) to total volume that could be placed on the beach under any circumstances is 25%, with the remainder being 75% larger-grained sand. The material must be free of trash and debris, must reasonably match the color of natural beach sand after exposure to the marine environment, must be less than 10% manufactured sand, and must not form a hardpan after placement. Any sample not meeting these pre-determined standards would be rejected.

Stage 2 - Sampling & Analysis Plan (SAP)
Preparation of a detailed SAP for approval by the U.S. Army Corps of Engineers (ACOE). Sand must be free of contaminants and chemical hazards based on Tier I testing protocol as specified by the ACOE and US EPA. Sand must be chemically inert and not possess characteristics that would adversely affect water quality, including temperature, dissolved oxygen, or pH. The results of these analyses would be distributed to the ACOE and EPA for review and approval.

Stage 3 – Review of CDP Requirements
City (applicant) evaluation of sand material in the context of the subject permit limits for project size, location, disposal method, timing, etc. The proposed timing of sand placement on the beach has been designed to replicate nature as closely as possible. Natural sediment delivery to the coast occurs during the wet season (fall and winter); therefore, to the extent feasible, sand placement projects will occur during that time. No more than 1/3 of the total allowed material could be placed on the beach outside the wet season. Per the Project Notification Report (**Exhibit 1, Item 3**) parameters for the time, placement method, and amount of suitable sand that could be placed at the two receiver sites. For example, at North Beach, no more than a total of 125,000 cubic yards of sand could be placed on the beach within any one year. The lineal extent of replenishment could not exceed 1,500 feet. Placement could be either as a berm or at the Mean High Tide Line. Sand could be placed either in the Fall/Winter (Sept. 21 – March 21) or in the Spring/Summer (March 21 – Sept 21), but different criteria apply depending on the season. Up to 25% fine material can be included in the sand only if it were placed in the winter. No more than 4 weeks of work could be done at North Beach during the summer. Only projects that comply with these specific criteria for each receiver beach could be considered under the proposed permit.

Stage 4 – Submittal of Project Notification Report
City submittal of a particular project for the approval by the Executive Director including all of the detailed information involved in performing the above analyses, such that the Executive Director could make a determination of whether the project conforms with the project limits. This information would also outline public notification requirements, and pre-, during, and post-construction monitoring plan for the project. As proposed, this monitoring must include biological monitoring (grunion, nearshore reefs and surfgrass, shorebirds), physical monitoring (turbidity, beach profiling), and recreational monitoring (surfing impacts). **Exhibit 1, Item 4** is the detailed monitoring program which would occur for each individual project, as well as annual summary reports. The City will also be responsible for keeping track of the cumulative beach replenishments which have occurred under the subject permit and providing this information to the Executive Director. The City proposes to provide the Commission updated reports as a part of each Project Notification Report and an additional post-project report within the year following the implementation of a subject project.

Thus, at the time any particular project was submitted for the Executive Director's approval, there would be site-specific information on the composition, chemistry, and grain size of the sand source material, the receiver beach, the timing and size of the project, the deposition method, a monitoring program, and a public notification program. Executive Director discretion at this point would be highly constrained, as only projects which met the specific standards for each of these items, as contained in the attached Exhibit 1 and as conditioned herein, could be approved under the subject permit. As previously noted, the Executive Director could only approve projects that fall within the parameters outlined in this permit, could reject a particular project for any reason, and require that it be reviewed and approved by the Commission as a separate permit.

The proposed permit amendment is based on very similar opportunistic sand replenishment permits approved by the Commission for the Cities of Carlsbad (CDP #6-06-48 and #6-06-048-A1), Solana Beach (CDP #6-08-38 and #6-08-038-A1), Encinitas (CDP #6-08-110 and #6-08-110-A2) and Oceanside (CDP #6-07-27 and #6-15-0986). The subject permit mirrors the structure and restrictions placed on this most recent Oceanside permit.

B. OTHER AGENCY APPROVALS

U.S. Army Corps of Engineers (ACOE)
The City has received a renewed 5-year U.S. ACOE Section 10 of the River and Harbor Act of 1899 (33 U.S.C. 403) Permit dated April 2013 and is valid until February 18, 2018.

State Water Resources Control Board
The City has provided proof that the State Water Resources Control Board San Diego Region extended the previous Section 404 of the Clean Water Act (33 U.S.C. 1344) certification with the new ACOE permit, therefore, the Section 404 Permit is also valid until February 18, 2018.

CA State Lands Commission
State Lands Commission lease expired in 2014. The City submitted a new lease application to the State Lands Commission in November 2015 to renew the lease for another 5-year term. This action is still pending. The proposed Project Notification Report, Section 8 – Special Requirements

includes a provision for submittal of copies of all permits and approvals from the Resource Agencies as an attachment to the Project Notification Report.

C. PUBLIC ACCESS AND RECREATION

Coastal Act Section 30210 states:

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

Coastal Act Section 30211 states:

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

Coastal Act Section 30212 states:

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:

(l) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,

(2) adequate access exists nearby...

Coastal Act Section 30231 states, in part:

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

Coastal Act Section 30214(a) states:

(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

(1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

Coastal Act Section 30220 states:

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

Coastal Act Section 30233(b) states:

> *(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.*

Recreation – General

The above policies establish the shoreline as a valuable asset to the environment and economy of the Southern California region and the State, worthy of protection and enhancement. The shoreline is also considered a resource of national significance. Beach erosion has been an increasing problem in the Southern California region, and in many past projects the Commission has identified beach replenishment as a means to preserve and enhance the environmental quality, recreational capacity, and property protection for the region's shoreline. Additional sand on beaches increases the amount of recreational area available for public uses, decreases the rate of beach erosion, and provides a buffer (a wider beach) between waves and adjacent public development, thereby reducing pressure to construct shoreline protective devices which can adversely affect both the visual quality of scenic coastal areas and shoreline sand supply.

Information submitted by the applicant documents that like other beaches in Orange and San Diego counties, natural sediment deposition along the City's coastal beaches is much lower than historic production rates. It is estimated that historically, San Clemente beaches received an annual sediment yield of 39,000 cy from local river sources within the Oceanside Cell, and the present yield is half that. As a result of this net loss of sediment deposition over the project area, the local beach profiles reflect these conditions and show severe signs of erosion, which is why the local beach widths are now much narrower than historic widths. For example, North beach is currently approximately 60 feet in width, while historically (1981), it was approximately 110 feet wide.

In response to this situation, the proposed opportunistic sand program would allow and expedite beach replenishment at two beach receiver sites in the City of San Clemente. It is impossible to say how long any particular fill sand project would remain on the beach, given the possible variations in amount of material and disposal location. However, during the time the sand remains on the beach the public will have the benefit of wider sandy beaches, and any sand deposited on the beach will become part of the littoral cell system.

Nevertheless, the project is expected to have some temporary adverse impacts on public access and recreation. All of the project beaches are currently used for various recreational activities including fishing, swimming, surfing and sunbathing. During construction, a beach fill site would have to be closed, creating a temporary adverse impact on recreation. The impact will be particularly significant during higher tides and at work areas where the entire beach area would be closed to the water line, and people cannot get past the work area to the rest of the beach except by traveling inland around the construction area.

As proposed, the program has limits on the season and amount of time that any particular beach could be closed (see the table under the **Introduction** of the Project Notification Report (**Exhibit 1, Item 3**)). Assuming that the maximum quantity of sand is placed each year, then the following construction closure times would be required. North Beach would be closed for 10 weeks in the fall/winter and 4 weeks in the spring/summer. Linda Lane would be closed for 6.5 weeks in fall/winter and 4 weeks in the spring/summer. The closures would not extend over the entire length of the beach, but only at the portions of the beach where earthmoving equipment are actively working. One-half of a particular beach may be closed while the other half remains open during work. In general, the water area is expected to remain open during construction activities, although the City would retain the ability to restrict access to the water if safety conflicts arose at a particular site. Due to City noise regulations, construction activities would be limited to normal weekday working hours and Saturdays from 7 AM to 6 PM.

Typically, the Commission has prohibited construction on beaches or in recreational areas from occurring during the summer months, or, if summer construction is unavoidable, prohibited construction on weekends and holidays. However, an adequate sand supply is essential to satisfying the access and recreation policies listed above as well. Consequently, in order to allow for the greatest flexibility in getting available sand to the beach such that public access and recreation can be improved consistent with the policies listed above, the proposed project includes allowances for work during the summer and on the weekends at these two City beaches. However, as proposed, no work would be undertaken on the holiday weekends of Memorial Day and Labor Day and weekends adjacent to Independence Day when Independence Day falls on a Friday or Monday. Should suitable sand material become available during the peak summer season (Memorial Day weekend through Labor Day weekend), work is would be permitted for a maximum of 4 weeks, 6 days a week at North Beach, which tends to be less impacted than the beaches closer to the pier and no more than a total of 4 weeks of construction (4 days a week) could occur during the peak summer period at Linda Lane. The periods identified are the maximum annual total potential replenishment timeframes; individual replenishment projects would likely be much smaller and require much shorter construction periods than the maximum. Additionally, the maximum allowed amount of sand might not be placed each year, which would also mean fewer construction impacts.

Since North Beach is upcoast of all other City beaches in San Clemente, sand placed at this beach may eventually benefit all of the other beaches downcoast. Thus, allowing the maximum flexibility for sand delivery at this site is likely to have the greatest long-term benefit to all of San Clemente's beaches. In this particular case, as proposed, only a maximum total of 4 weeks of construction would be allowed at North Beach during the entire spring/summer season with no work on the holiday weekends.

Furthermore, the applicant has stated that most sand replenishment is expected to occur during the rainy season, because placing sand at that time most closely mimics the pattern of natural sand movement.

To further limit adverse impacts on public access, the proposed program includes a public notification process that each construction site be posted with a notice indicating the expected dates of construction and/or beach closures. To further ensure full public notice, **Special Condition 1** specifies the size of the notification signs placed on the beach to be a minimum of 2 ft. x 3 ft. for the duration of sand replenishment activities on the beach. The City proposes public notifications that

could include the City's Coastal Advisory Committee Workshops, City council Meetings, Chamber of Commerce/Downtown Business Association articles, City Publications, newspaper articles, signage, notices in local newspapers, or direct mailings, notices in utility bills, or cable TV local announcements. Furthermore, individual sand replenishment projects proposed under the subject permit must be approved by the San Clemente Planning Commission or City Council after a public hearing. This hearing must be held prior to submittal of the Project Notification Report, such that any local concerns can be addressed prior to the Executive Director's review. Written correspondence received by the City regarding the project and minutes of the Planning Commission/City Council meetings will be included in the Project Notification for the Executive Director's review. Thus, the public will have adequate opportunities to be notified of, and provide input on future sand replenishment projects.

Traffic and Parking

As proposed, at the North Beach Fill Site, trucks would utilize the controlled railroad at-grade crossing and public street. The trucks would then pass through a gated fence at the end of the public street, and over a box-channel bridge at the flood control channel. The trucks would then drive onto a temporary construction road onto the beach, dump their loads, and drive back onto the construction road and back through the same route (see **Exhibit 5**). Earthmovers will push the sand from the truck drop site onto the beach and/or into the water.

The Linda Lane Beach Fill Site would also be serviced by trucks and scrapers. The trucks would dump the sand onto North Beach, and scrapers would then pick up the sand and proceed south to Linda Lane around Mariposa Point during low tides. A temporary construction road over the sand seaward of the railroad tracks may be developed depending on the access around Mariposa Point, which periodically changes.

The project could have an adverse impact on public access and recreation if construction vehicles significantly increase traffic flows. In order to minimize traffic disruptions, the project includes limits on the number and frequency of truck trips (see **Exhibit 5**). A project-specific traffic route plan must also be created for each nourishment project. The timing of sand delivery is estimated to be approximately 40% longer at Linda Lane than at North Beach site because of a lower delivery rate, which depends on existence of low tides, exposed rock that may limit access, and use of four-wheel drive trucks requiring double handling of the material. Therefore, less sand will be delivered to Linda Lane over a specified time period, as compared to the North Beach site.

A small amount of material could also be trucked to the Linda Lane Beach Fill Site via access over the pier at-grade crossing. To access the beach, trucks would travel from Avenida Palizada to Calle Sevilla to Avenida Del Mar to the at-grade crossing. Because this route passes through a more congested residential and commercial community, the total volume to be trucked will be limited to 2,400 cubic yards per week to minimize adverse impacts.

The 2002 Mitigated Negative Declaration determined that with the project limits on hauling trips and frequencies, no individual project would generate sufficient traffic to decrease the Level of Service on El Camino Real, Avenida Pico, or Avenida Del Mar during construction.

With regard to parking, as proposed, the North Beach parking lot will remain open and available to the public. Some limited, temporary use of street parking may be necessary during construction

operations. However, the use of public parking spaces will only be when unavoidable and where the minimum number of spaces necessary is used. Given the proposed limits on work during the summer season and the restraints on number of truck trips, public access and recreation is not expected to be significantly restricted by construction activities.

Recreation - Surfing

City beaches are considered relatively high-quality surfing locations. Surfing could potentially be impacted not only by restriction of access to the water during construction, but through the modification of existing sand bars and reefs by sand placement and deposition, and poor water quality caused either by turbidity generated during and after construction, or contaminants being released into the surfzone by the fill material.

As previously noted, the water area is expected to remain open during construction activities, and limits have been placed on the season and amount of time construction can occur. The City proposes to test all potential sand sources to verify that the sand is free of contaminants prior to placement on any beach fill site. They must also perform background research of the potential for the material to possess contaminants based on Tier I testing protocol as specified by the ACOE and the U.S. EPA. Therefore, there should not be any health threats to surfers from contamination.

According to the 2002 Mitigated Negative Declaration for the San Clemente Beach Replenishment Program, there is a potential for a "low level turbidity plume to occur in the water during construction activities." However, turbidity will be minimized by restricting the amount of fines in the placement sand to no more than 25% in the Fall/Winter period, and 20% during the Spring and Summer season (see detailed discussion Fines below under Biological Resources). In addition, the program requires monitoring of turbidity by lifeguards during construction. If turbidity levels reach higher than ambient levels and extend beyond the end of the pier for more than three days, the operation must be curtailed, or cease, to decrease turbidity to below this criterion. In addition, turbidity monitoring and reporting will be done daily during nourishment. Although no significant recreational impacts are expected from turbidity, proposed turbidity monitoring will provide information that will allow future projects to more accurately assess and avoid turbidity.

With regard to the potential modification of sand bars due to beach nourishment, changes in the formation of offshore sand bars are a naturally occurring event, and there are seasonal periodic changes to surfing localities. The Mitigated Negative Declaration notes that the project could add a relatively large sand "slug" to the system over a short time frame thereby changing bottom conditions at the sites. This impact could be adverse and significant if sand deposition caused waves to close-out over a long period of time (months) rather than peak, or resulted in a perpetual shorebreak at the beach rather than a nearshore bar for waves to break over. However, any such occurrence is most likely to be a short-term condition while the sand is naturally redistributed over the bottom. The project may cause potentially beneficial impacts to surfing by contributing sand to the nearshore that will be deposited in bars throughout the City. More sand in the system provides material for enhanced sand bar formation and may result in larger or longer-lasting bars, and improved surfing conditions. The report indicates that informal observations of the 2000 SANDAG beach replenishment project showed surfing conditions improved at each sand placement site after construction because of sand bar formation.

Surfing will be monitored visually before and after construction to determine if project impacts occurred, per the Monitoring Plan (see **Exhibit 1, Item 4**). If so, the program proposes to incorporate more restrictions to either avoid surf sites or reduce sand quantities placed near surf sites. **Special Condition 1** requires the applicant supplement the pre-construction surf monitoring from the proposed once a week for 2 weeks time frame to three times a week for two months (a similar surf monitoring requirement was included in the most recent opportunistic beach replenishment program CDP 6-15-0986 (Oceanside)).

Sand will also be monitored to identify if the sand is becoming hard packed and to assess the appropriateness of additional grading to push the sand into the surfzone to remediate the problem. This or other remedies must be submitted to the Executive Director as a new project and the Executive Director will determine whether the proposed remediation may be authorized under this coastal development permit or whether the work shall require an amendment to this permit or a new permit. As conditioned, general recreation and access impacts such as traffic flows and complaints from the public must also be evaluated in the post-project report to aid in the review of future nourishment projects under the subject program.

In summary, the proposed project will have short-term and temporary impacts on public access and recreation, which have been minimized by restrictions and conditions on the amount of work than can occur during the summer. The project overall will have a positive impact on San Clemente's beaches. The proposed sand monitoring program will provide information regarding the short and long-term effects of beach replenishment, including how long the sand remains on the beach at different sites in different conditions. The surfing and recreational monitoring will provide similarly detailed information. Therefore, as conditioned, the proposed project can be found consistent with the public access and recreation policies of the Coastal Act.

D. BIOLOGICAL RESOURCES AND WATER QUALITY

Coastal Act Section 30230 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.*

Coastal Act Section 30231 states in part:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff...*

Coastal Act Section 30233states, in part:

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

Coastal Act Section 30240 states:

> *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*
>
> *(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

The Coastal Act policies identified above require the Commission to address impacts on marine resources by considering the timing of deposition of the material on the beach, the composition of the material, the location of the receiver beach, and the presence of environmentally sensitive resources. Development in areas adjacent to sensitive marine habitat areas, marine parks, federal and state Marine Protected Areas and recreation areas, such as beaches, must be sited and designed to prevent impacts which would significantly degrade those areas, and must be compatible with the continuance of those habitat and recreation areas. The restoration of beaches is a permitted use in open coastal waters under Section 30233; however, the project must be the least environmentally damaging alternative, and any impacts must be mitigated.

While the Commission has viewed beach replenishment as a means to address loss of public access and recreation and to protect property, the Commission is becoming increasingly aware of the potential adverse ecological consequences of this practice. Beach replenishment is often considered the most environmentally sound method of maintaining eroding shorelines. However, fill activities may cause disturbance and mortality of marine life and have the potential to alter the diversity, abundance, and distribution of intertidal macroinvertebrates for months to years. Deposition of

material onto the beach can affect marine life through the direct burial of organisms on the beach and in the nearshore environment, by the secondary movement of beach fill material within the littoral drift zone that could bury reefs and organisms, and by increasing turbidity in adjacent waters, which could adversely affect the growth of kelp and impact the ability of shorebirds to find food in offshore waters. Ecological recovery following fill activities depends on successful recolonization and recruitment of the entire sandy intertidal community. With this new understanding the Commission is reviewing beach replenishment projects in terms of potential ecological impacts and as the understanding of impacts from nourishment projects increase, additional special conditions to limit both physical and biological impacts to the sandy beach ecosystems may be warranted in the future.

A biological resource concern raised by the project is the potential for direct burial of organisms on the beach and in the nearshore environment by the placement of sand. If persistent over a long temporal scale, these impacts could potentially shift population dynamics of these infaunal communities as well as affect available prey sources for nearshore fish and avian populations. Additionally, significant shifts in grain size conditions could also alter the physical beach environment and result in shifts in ecosystem species composition. As proposed, and identified in the Project Notification Report, parameters for maximum sand placement volumes during the five year permit term, sand grain size, timing of sand placement, and post project monitoring will reduce impacts to beach and nearshore organisms to the greatest extent feasible. Due to the dynamic nature of the intertidal and beach environment, small-scale beach nourishment projects such as those proposed by the City, may result in short term impacts to the sandy beach environment; however, over the long term, impacts are expected to be less than significant.

Another concern with beach nourishment projects is the indirect impacts due to sand material transported by waves through the littoral system, and the resultant potential to temporarily or permanently affect sensitive marine habitats. In addition, increasing turbidity in adjacent waters could adversely affect the growth of kelp and surfgrass and the foraging ability of many marine animals, including shore and seabirds.

Biological Assessment

A biological assessment performed on the subject site in October 2000, described the predominant intertidal habitat along San Clemente's shoreline as sandy beach, although some rocky outcrops are present at Mariposa Point, upcoast of San Clemente Pier where relic exposures extend from mid beach to the low intertidal. Beyond the surf zone, the seafloor is a mosaic of sand and low-to-high relief patch reef. Some pinnacles of the reef are visible in the nearshore zone at low tide, while two prominent offshore pinnacles break the surface offshore of Mariposa Point and further downcoast of San Clemente Pier outside the project area. Other reef habitats are also located south of the pier. Sensitive biological resources found within the region between San Clemente and Oceanside that have a potential to be affected by beach fill include intertidal and nearshore reefs that support surfgrass and giant kelp, and State and Federally listed species including the California least tern, western snowy plover, the California brown pelican and the endangered tidewater goby. Intertidal and subtidal reconnaissance surveys were conducted at and in the vicinity of each of the proposed fill sites to assess the presence of reefs, surfgrass and the other above-listed sensitive biological resources, as well as for California grunion.

The surveys determined that rocky intertidal habitat is present at Mariposa Point, between the North Beach Fill Site and the Linda Lane Beach Fill Site. It extends for a distance of approximately 1,400 feet along the shoreline and approximately 250 feet into the wave zone. Offshore, patchy reef habitat is present along the entire shoreline northwest and southeast of the program area. Surfgrass is typically abundant on the intertidal and shallow subtidal reefs. **Exhibit 6** shows a map of the biological resources in the project vicinity. **Exhibit 7** contains a summary of biological information for each beach fill site.

Because of the ecological importance of surfgrass and reefs to the intertidal and nearshore environment, various configurations and volumes of beach fill material were analyzed by the City to develop configurations that would not result in impacts to these resources. The proposed placement locations and quantities are a result of these analyses. Modeling of sand dispersion was used to determine the proposed placement footprint and quality so, as a worst case, sand would not bury more than 2/3 of surfgrass blade lengths for more than six months, which was determined to be a less than significant impact. As proposed, the San Clemente Opportunistic Beach Replenishment Program Monitoring Plan (**Exhibit 1, Item 4**) includes surfgrass monitoring prior to and post fill placement. A series of nearshore reef monitoring sites will be established offshore of each beach fill site to measure sand levels. At each site, random surfgrass percent-cover measurements and surfgrass blade length measurements will be collected. In addition, the amount of any sand deposition over plants will be estimated. Surveys are proposed to be conducted after the completion of beach fill at days 30, 90, 180, and 360 after construction and reported to the appropriate regulatory agencies. In the event that it is determined that nearshore reefs and surfgrass meadows are being negatively affected by beach fill operations, the project will either be curtailed or stopped.

Sand Placement Methodology

Replenishment sand is proposed to be placed in three ways:

1) below mean high tide line, or

2) beach berm; or

3) a sand dike along the rock revetment.

The City will coordinate with the resource agencies, and the public for each individual project to determine whether to allocate sand to both receiver sites or to place sand at only one receiver site. Factors that will be considered include the current beach profile and need for sand at each receiver site, adjacent construction activities that would complicate sand delivery, and any other environmental or public access and recreation concerns identified at that time. Receiver site selection and the methodology used to determine sand allocation will be detailed in the Project Notification Report for each replenishment project.

Sediment Analysis

All potential sand projects would have to undergo several stages of future project review at the City level. The bulk of the testing and review of potential sand sources would take place at the City prior to the project being submitted to the Executive Director. When a beach fill opportunity is identified (e.g. a developer notifies the City when excess fill material from a construction project is available, or City staff identifies it as part of reviewing development project submittals), the City would first either review existing data about the available fill material, or conduct an initial screening test of the fill material to determine if it has the potential to meet the criteria to be placed

on the beach. The review includes an assessment of possible pollutants, contaminants, grain size, and color, and compares it against existing condition at the subject receiver site.

Sediment Gradation (grain size) would be tested at both the source and receiver sites prior to each beach replenishment project.

A sand source must first meet the criteria required by the Project Notification Report (**Exhibit 1, Item 3**), as identified in the preceding paragraphs. Then, more stringent testing would be conducted through development of a Sampling & Analysis Plan (SAP) prepared for and approved by the USACE. Sand must be free of contaminants and chemical hazards based on Tier I testing protocol as specified by the USACE and EPA. Sand must be chemically inert and not possess characteristics that would adversely affect water quality, including temperature, dissolved oxygen, or pH. The results of these analyses would be distributed to the USACE and EPA for review and approval and the Executive Director would be copied on these submittals as a part of the Project Notification Report for each replenishment project.

Sand Grain Composition

The composition of the sand replenishment material can also affect the environment. The applicant proposes to test and analyze potential beach nourishment sand sources that have up to 25% fines. This is the upper limit of what would be considered for placement on the beaches, and not a standard for all material that would be placed. The 25% cut-off for fines would enable the applicant to consider a fairly large range of potential source materials. According to the applicant, if up to 25% fines are used as an initial screen for possible nourishment material, almost all the potentially available nourishment material that the City expects to review could be considered within this effort. If the fines content were reduced to be up to 20%, this would decrease the material that could be considered for nourishment to only 75% of that which would be considered with 25% fines. A limit of 15% fines would reduce to potentially available material to only 30% and a 10% limit on fines would reduce the potentially available material to only 15%. The inclusion of up to 25% fines in the opportunistic sand program will maximize the amount of potentially beneficial material that could be tested and analyzed for consideration as beach nourishment material.

A 25% fines content is higher than most beach nourishment projects the Commission has considered in the past. In most cases, the Commission has required that beach nourishment materials have an 80 percent or more sand content[1]. One concern relating to the amount of fines in nourishment sediment is that the nourishment effort can introduce a grain size that is not already part of the receiver environment. The other concern is turbidity associated with fines.

According to the information submitted by the applicant, the proposed 25% maximum fines content is well below the natural quantity of fines delivered annually from local streams and rivers during the winter season. Since the sites are near to and under the influence of discharges from San Juan Creek, they are accustomed to the fluxes of sedimentation and turbidity from fines during the wet winter season. The applicant took sediment samples along profiles at both Linda Lane and North

[1] The Commission has approved use of materials containing less than 80% sand for beach nourishment purposes in at least one other case. Coastal Development Permit 5-99-282 for beach nourishment within Newport Bay allowed use of materials containing less than 80% sand when the content of sand/fines is within 10% of the sand/fines content of the receiver beach.

Beach. The composite sample for Linda Lane had only 5% fines and the composite sample for North Beach had only 8% fines. However, both profiles show an offshore zone where there are high concentrations of fine material. The sample for Linda Lane, from –24' MLLW (Mean Lower Low Water), had 16% fines; the sample for North Beach, from –30' MLLW had 34% fines. These sample results show that fine sediments are now found in the nearshore areas of both Linda Lane and North Beach. Thus, the addition of fine sediments as part of a beach nourishment effort, would not be introducing a physical sediment type that is not already part of the littoral system.

In addition, placement of material with more than 20% fines is restricted to only the fall/winter season. As noted previously, most of the sand replenishment is anticipated to occur during the rainy season, when turbidity is naturally higher. The seasonal limits are designed to mimic the natural sediment delivery to the coast by rivers and streams. Up to 100% placement is proposed during the winter season, and no more than 33% proposed during the summer season when natural sediment delivery is very low.

As noted above, the program requires monitoring of turbidity by lifeguards during construction. If turbidity levels reach higher than ambient levels and extend beyond the end of the pier for more than three days, the operation must be curtailed or cease to decrease turbidity to below this criterion. Thus, bird foraging should be able to continue during construction. The turbidity monitoring and reporting includes the length of the turbidity plume estimated and recorded on a map, documentation of project information such as replenishment site, placement method (below the mean high tide line, over existing sand, as sand dike), timing of the operation (start date, stop date, hours of operation), quantity of material, physical and chemical characteristics, and the source of the material. Although no significant environmental impacts are expected from turbidity, the monitoring will provide information to allow future projects to more accurately assess and avoid turbidity.

The biological assessment concluded that any sedimentation on the reefs and increase in turbidity would be very limited and within the late summer to winter oceanographic season sedimentation rates. However, to be conservative, measures are incorporated into the program to minimize impacts including maintaining a 1,000-ft. buffer distance between the North Beach Fill site and Mariposa Point. Sediment monitoring will occur to document habitat effects, and a surfgrass health inventory will be performed before and after construction to verify that no impacts to resources will take place. As proposed, a preliminary surfgrass survey will be performed at the receiver site prior to, and submitted as part of, the Project Notification Report. Thus, the Executive Director will have site-specific, recent information on the presence and location of surfgrass prior to approving or rejecting any particular replenishment project.

Grunion

California grunion spawn on sandy beaches in the San Clemente region between March and August and have the potential to be affected by beach fill projects. In order to avoid any possible adverse impacts to grunion, the City proposes biological monitoring at fill site(s) during predicted grunion spawning periods throughout the spawning season immediately prior to construction to identify the potential for eggs to be present, with construction stopping if grunion are present. If grunion spawning is confirmed, beach deposition shall be limited to areas above mean high tide, or buffer zones will be created excluding fill activities from spawning sites.

Western Snowy Plover
A qualified biologist must also examine the beach area prior to any fill activities to check for western snowy plovers. If the birds are present, any planned beach activity will be temporarily halted until the monitor determines that the birds have moved away from the fill area.

If pre-construction monitoring identifies any potential impacts to coastal resources not identified and addressed in this permit, the replenishment project shall be suspended and the monitoring results reported to the Executive Director. In that case, no work on the project shall occur without a new permit or an amendment to the subject permit.

The project has been designed and sited to avoid impacts to sensitive habitat, and no impacts to any biological resources are anticipated. Consistent with Section 30240, the project will enhance a recreation beach area.

Water Quality
Construction equipment used for the project has the potential to contaminate the sand from minor spills and leaks from equipment. As proposed, storage of construction material in the surfzone, and washing vehicles on the beach is prohibited. Any debris resulting from construction activities must be removed from the project site within 24 hours of completion of construction and on-site debris monitoring be present during beach replenishment. If any debris or non-sand material is detected, the project must be halted, until new information on the composition of the sand material is approved by the Executive Director. As conditioned, no significant impacts to water quality are expected. The program has received a water quality certification from the California Regional Water Quality Control Board (RWQCB), which determined that the project was consistent with the applicable requirements of the RWQCB Water Quality Control Plan (Basin Plan).

Special Condition 2 notifies the applicant that the subject permit does not cover the development that provides the sand source for beach replenishment, such as dredging or new construction. Those projects must receive separate coastal development permits when the source is obtained in the coastal zone.

Conclusion
In summary, although the program would allow for a higher percentage of fines than has been typically approved in past projects, and the very nature of the project raises the potential for negative impacts to the benthic tidal environment, the subject program has been designed to minimize potential environmental impacts and, as conditioned, is not anticipated to have any impacts inconsistent with 30230, 30231, 30233, or 30240. Restrictions on placement locations, timing and quantities have been designed to avoid or limit impacts to sensitive habitat. Biological surveys have not identified any long-term significant impacts to sensitive resources. Initial testing has determined that the proposed receiver beaches have a similar percentage of fines to the proposed placement material. All impacts will be closely monitored, and any unanticipated impacts will be reviewed prior to approval of future projects. As conditioned, the Commission finds that the proposed project will ensure that all environmental impacts are minimized, and if significant impacts do occur despite all precautions, they will be identified and adequately mitigated. Therefore, the proposed project can be found consistent with the resource protection policies of the Coastal Act.

E. HAZARDS

Coastal Act Section 30253 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 beaches where beach nourishment is proposed, and erosion is one form of potential geologic hazard. The fact that the applicant is proposing beach nourishment to restore pre-existing beaches indicates that erosion does occur. However, the applicant will not increase erosion hazards by increasing the size of beaches beyond pre-existing conditions, and increasing the beach size may decrease risks to property. As described above, testing and monitoring the replenishment material will ensure risks to life and health are minimized. Therefore, the proposed project minimizes this hazard consistent with Section 30253.

Because there remains an inherent risk to development along the shoreline, The beach replenishment program includes in the Project Notification Report Section 8.4 and "Assumption of Risk, Waiver of Liability and Indemnity" in which the City acknowledges and agrees to indemnify and hold harmless the California Coastal Commission, its officers, agents and employees against any and all claims, demands, damages, costs, expenses of liability arising out of the acquisition, design, construction, operation, maintenance, existence, or failure of the permitted project. In this way, the applicant is notified that the Commission is not liable for damage as a result of approving the permit for development.

F. LOCAL COASTAL PROGRAM (LCP)

Section 30604(a) of the Coastal Act provides that the Commission shall issue a coastal permit for development in an area with no certified Local Coastal Program ("LCP") only if the project will not prejudice the ability of the local government having jurisdiction to prepare an LCP that conforms with Chapter 3 policies of the Coastal Act. The Commission certified the Land Use Plan (LUP) for the City of San Clemente on May 11, 1988, and certified an amendment approved in October 1995. On April 10, 1998, the Commission certified with suggested modifications the Implementation Plan (IP) portion of the Local Coastal Program. The suggested modifications expired on October 10, 1998. The City re-submitted on June 3, 1999, but withdrew the submittal on October 5, 2000. Therefore, the City has no certified LCP.

As conditioned, the proposed development is consistent with the policies contained in the certified Land Use Plan regarding public access, recreation, and environmental protection and the policies in Chapter 3 of the Coastal Act. Therefore, approval of the proposed development will not prejudice the City's ability to prepare a Local Coastal Program for San Clemente that is consistent with the Chapter 3 policies of the Coastal Act as required by Section 30604(a).

G. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 of the Commission's Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, 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 City of San Clemente is the lead agency for purposes of CEQA compliance. The City prepared a Mitigated Negative Declaration in 2002 pursuant to CEQA Guidelines. In order to ensure compliance with Coastal Act requirements, the Commission adopts additional mitigation measures including conditions addressing monitoring of biological, physical, and recreational impacts, will minimize all adverse environmental impacts. As conditioned, the proposed project is consistent with the public access, water quality, biological and visual resource protection policies of the Coastal Act and there are no feasible alternatives or additional 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 is consistent with the requirements of the Coastal Act and CEQA.

Appendix A - Substantive File Documents

City of San Clemente certified Land Use Plan (LUP)

Final Mitigated Negative Declaration San Clemente Beach Replenishment Project, 12/30/03

Technical Report, San Clemente Beach Replenishment Program, Criteria and Concept Design, by Moffat & Nichol, January 2002.

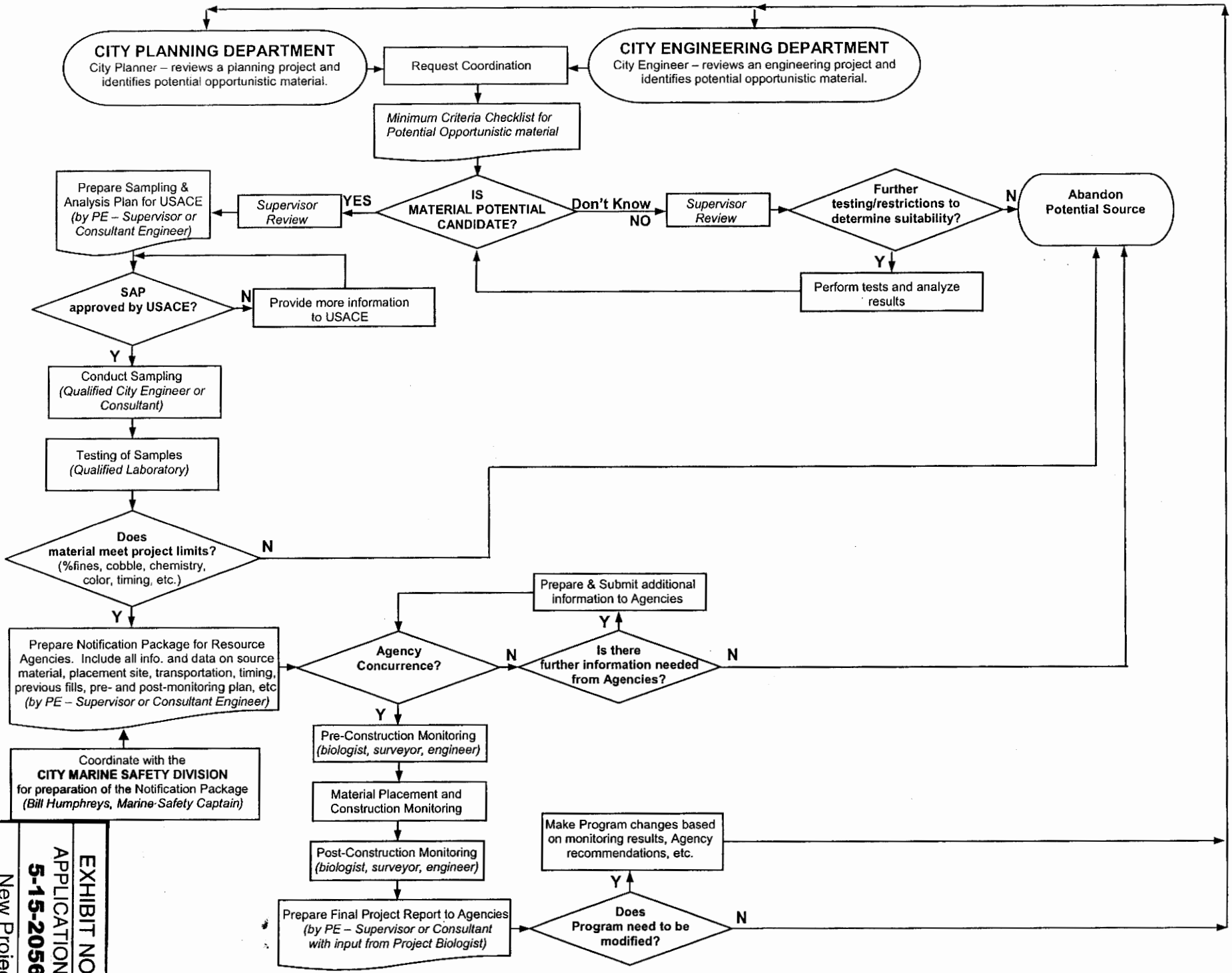


Exhibit 1: Item 1: Project Flowchart

EXHIBIT NO. 1
APPLICATION NO. 5-15-2056
New Project Submittal Package
Items 1 - 4
California Coastal Commission

DRAFT CITY OF SAN CLEMENTE

MINIMUM CRITERIA ACCEPTABILITY CHECKLIST

Name:	
Job Title:	
Date:	

SOURCE SITE AND MATERIAL

1) Location of Potential Source Material:

2) Indicate Quantity of Material (Total at site/Net available for possible beach placement) | Do Not Know | N/A

3) Has any **Grainsize** testing of Material been done? If *yes,* describe results below. **If *no,* see ASSESSMENT.** | Yes | No | Do Not Know | N/A

a) Locations/depths of borings or samples:

b) Grainsize (median, D50, D85, D15, %fines):

4) Has any **Chemistry** testing of Material been done? If *yes,* describe results below. **If *no,* see ASSESSMENT.** | Yes | No | Do Not Know | N/A

a) Locations/depths of borings or samples:

b) Chemical constituents present:

5) Any Previous or Available **Geotechnical** Data | Yes | No | Do Not Know | N/A

If yes, provide details and source

6) Any Previous or Available **Phase1 Site Assessment** Data | Yes | No | Do Not Know | N/A

If yes, provide details and source

7) Physical Inspection of Site: | Yes | No | Do Not Know | N/A

Date:

Observations:

8) Physical Inspection of Sediment Sample: | Yes | No | Do Not Know | N/A

Date:

Observations:

9) Does material contain debris? | Yes | No | Do Not Know | N/A

10) Does material contain large rocks or boulders? | Yes | No | Do Not Know | N/A

11) Timing of Source Availability: | Do Not Know | N/A

12) Where will other excess material at site be distributed? | Do Not Know | N/A

13) List all available technical information about the source location and material:

Exhibit 1: Item 2: Minimum Criteria Acceptability Checklist

	Agree	Dis-Agree	Do Not Know	N/A	Basis for Decision
GENERAL MATERIAL CHARACTERIZATION					
1) material is primarily sand, gravel and/or inert material,					
2) sediments are from locations far removed from sources of contaminants (based on agency judgment),					
3) sediments were deposited in pre-industrial times,					
4) sediments were NOT exposed to modern sources of pollution.					
5) sediments are NOT from agricultural areas.					

	Yes	No	Do Not Know	N/A	Basis for Decision
POSSIBLE POLLUTANTS MAY BE PRESENT IF:					
The material was known to be exposed to:					
1) urban and agricultural runoff,					
2) sewer overflows/bypassing,					
3) industrial and municipal wastewater discharges,					
4) previous dredged or fill discharges,					
5) landfill leachate/groundwater discharges,					
6) spills of oil or chemicals,					
7) releases from Superfund and other hazardous waste site					
8) illegal discharges,					
9) air deposition,					
10) biological production (detritus),					
11) mineral deposits.					

DESCRIBE SITE FACTORS IN ASSESSMENT OF POTENTIAL CONTAMINANTS
1) bathymetry:
2) water current patterns:
3) tributary flows:
4) watershed hydrology and land uses:
5) sediment and soil types:
6) sediment deposition rates:

	Yes	No	Do Not Know	N/A	Basis for Decision
ASSESSMENT					
Based on the checklist and assessment of factors listed above, does the City determine that the material requires further GRAINSIZE testing?					
Based on the checklist and assessment of factors listed above, does the City determine that the material requires further CHEMICAL testing?					
A Sampling & Analysis Plan (SAP) is REQUIRED for approval from the Corps of Engineers to determine compatibility. The SAP can include previous data, if available. BEFORE any further testing is conducted, a SAP shall be prepared and submit to the Corps for approval.					

	Yes	No	Do Not Know	N/A	Basis for Decision
GRAINSIZE					
Does the material fall within the Level I City review requirement, as specified in Table 3.1 of the Technical Report San Clemente Beach Replenishment Program Criteria and Concept Design?					
COLOR					
Is the material similar in color to existing beach sand after exposure to the marine environment?					
PARTICLE SHAPE					
Based on visual inspection, are material grains primarily rounded in shape without sharp points or jagged edges?					
CONCLUSION					
BASED ON RESULTS OF THIS CHECKLIST ASSESSMENT, DOES THIS MATERIAL QUALIFY TO BE CONSIDERED AS OPPORTUNISTIC BEACH FILL? IF YES, CONTACT THE PLANNING AND ENGINEERING DIRECTORS AND PROVIDE ALL SUPPORTING TECHNICAL INFORMATION.?					

SAN CLEMENTE OPPORTUNISTIC BEACH REPLENISHMENT PROGRAM PROJECT NOTIFICATION REPORT

1. Introduction

Provide the basic program outline. Specify the permit conditions (USACE, CCC, RWQCB, and SLC). This Project Notification Report will request agency concurrence and a Notice to Proceed from the USACE.

Proposed Project Details

Placement Site	Max. Annual Quantity (CY)	Max. Project Length (ft)	Max. % Fines Allowed	Trucking (Volumes & Timing)		
				CY Per Week	No. Weeks	No. Days Per Week
North Beach	125,000	1,500	25			
Linda Lane	75,000	1,500	25			

2. Source Material

2.1. General Site Location

Include maps, figures, and text description of site location and surrounding areas.

2.2. Specific Location of Source Material at Site

Describe where on the site the source material is found

2.3. Volume of Material (Total volume and volume proposed for beach placement)

Describe total volume of material available at site and volume that is being proposed for beach nourishment. The disposal method of excess material will be described in this section.

2.4. Material Testing

Present the Sampling and Analysis Plan that was prepared for and approved by the USACE as part of their permit conditions. The results will be provided, which will include any chemistry and grain size testing. Figures and tables will be provided.

2.5. Debris Management

Describe general content of material with regard to debris. This will include a description of the kinds of debris found in the source material, methods for screening, separating, and/or retrieving the debris, and disposal methods.

3. Receiver Site

This section will provide specifics as to the receiver site for opportunistic sand placement and compatibility of proposed source site with the selected receive site location.

4. Transportation and Placement

4.1. Site Location and Timing

Describe which beach site will be used and the timing of project. Include projected schedule.

4.2. Transportation Method

Describe how the material will get to the beach site (truck or train). Outline trucking routes and provide figures, if needed. Indicate how many trucks/trains and frequency. Specify a traffic control plan from the contractor.

4.3. Beach Placement Method

Describe the placement method, including any equipment that may be needed to construct the project. Outline specific public access closures or restrictions. Outline project BMPs, such as flagmen, perimeter fencing, etc. that are proposed.

4.4. Contractor Information

Include Contractor name, address, contact information, etc.

5. Public Notification Process

This section will outline how the public is being notified of the overall program and this specific project. Proposed public noticing methods may include Coastal Advisory Committee (CAC) Workshops, City Council Meetings, Chamber of Commerce/Downtown Business Association articles, City Publications, Newspaper Articles, Signage, Public Television, or Water Billing notices.

6. Project Monitoring

This section will outline the pre-, during, and post-construction monitoring plan for the project. This section will also include the reporting protocols for the monitoring efforts as outlined in the CCC, RWQCB, USACE, and SLC permit requirements.

6.1. Pre-Construction monitoring

Describe all pre-construction monitoring and that will be conducted. This will include biological monitoring and physical monitoring (pre-fill profiles and surfing conditions). The description will include what will be monitored, procedures for the monitoring, frequency, who will conduct the monitoring and their

qualifications. Figures representing areas, transects, etc., will be included in the pre-construction monitoring.

6.2. Construction Monitoring

Describe what monitoring will be conducted during construction, including biological and physical monitoring. This will include monitoring protocol and contingency operations for monitoring of turbidity, sedimentation, surfing effects, and biology at the proposed discharge site and adjacent nearshore and offshore areas. Monitoring personnel will be identified and their qualifications will be provided.

6.3. Post-Construction Monitoring

Describe what monitoring will be conducted after construction, including biological and physical monitoring. This will include monitoring protocol and contingency operations for monitoring of sedimentation, biology and effects to surfing at the proposed discharge site and adjacent nearshore and offshore areas. Monitoring personnel will be identified and their qualifications will be provided.

7. Previous Projects in San Clemente

This section will provide a table outlining each placement site and any beach fills that have occurred.

Site	Dates of Placement	Volume (CY)	Total Volume to Date (CY)	Placement Method	Fill Length	Width (if applicable)	% Fines)
North Beach							
Linda Lane							

8. Submittals

This section will outline what submittals are required and when the resource agencies can expect them. This will include notification of any violations to the resource agencies.

8.1. Post Discharge Report

Post-Discharge Report will be compiled and submitted to the resource agencies which will include all of the information collected by the City for an individual project, including all preparation testing, volume of material placed at the site, transportation and construction details, finalized project schedule, and monitoring results. An assessment of the project effects, both beneficial and adverse will be presented at the end of every year. This analysis will serve as the basis for any modifications that can be made to optimize the program.

9. Special Requirements

This section will address and provide information required in the "Special Requirements" section of the Coastal Development permit for the project which requires that prior to the

issuance of the Coastal Development Permit, the applicant shall submit to the Executive Director for review and written approval, revisions to the model Project Notification Report that is within the New Project Submittal Package in the form Special Requirements added to the end of the Report. This section shall include the following requirements:

9.1. Timing of Executive Director Approval.
The Executive Director of the Coastal Commission shall review the completed New Project Submittal Package within 30 days of receipt of the Package unless there are unusual circumstances. Within this time period, the Executive Director shall provide a written response of 1) approval of the specific sand replenishment project proposed; or, 2) a requirement that the project receive a new, separate coastal development permit; or 3) a request for additional information; or 4) a statement that additional time to review the project will be necessary and an indication of the anticipated response date. A failure of the ED to respond within 30 days will not result in the specific project being deemed approved; written approval from the Executive Director is required prior to the initiation of any work.

9.2 Other Permits
Prior to commencement of construction on any specific beach replenishment project, the applicant shall provide to the Executive Director copies of all other required state or federal discretionary permits, and required leases from the California State Lands Commission, for the development. The applicant shall inform the Executive Director of any changes to the development required by such permits. Such changes shall not be incorporated into any beach replenishment project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

9.3 U.S. Army Corps of Engineers Permit.
Prior to commencement of construction on any specific beach replenishment project, the applicant shall provide to the Executive Director a copy of a U.S. Army Corps of Engineers permit, or letter of permission, or evidence that no Corps permit is necessary for the project. The applicant shall inform the Executive Director of any changes to the project required by the U.S. Army Corps of Engineers. 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.

9.4 Assumption of Risk, Waiver of Liability and Indemnity.

By acceptance of Coastal Commission Permit _____ at its implementation at the site listed in this completed Project Notification Report, the applicant acknowledges and agrees (i) that the site may be subject to hazards such as erosion and landslides; (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.

Monitoring Plan for the San Clemente Opportunistic Beach Replenishment Program

This document provides details of the monitoring proposed for the San Clemente Opportunistic Beach Fill Program. Biological Monitoring and Physical Monitoring are discussed.

1. BIOLOGICAL MONITORING

Biological monitoring will be conducted prior to and following the completion of beach fill operations at each of the four beach fill sites and at Mariposa Point. The following programs will be implemented to assess observed effects on intertidal and reef resources.

1.1 Sandy Intertidal Resources

California Grunion - Grunion spawning runs will be monitored at Linda Lane and T-Street Beach Fill Sites when beach fill construction is occurring at these sites during grunion spawning periods (grunion spawning has not historically occurred at North Beach). If grunion are observed, then construction activities will be halted within a buffer zone until the spawn has been completed. In addition, sand berms will be placed around the spawning area, if possible. The buffer zone would extend 65 feet (ft) landward of the highest high water mark and extend both 100 ft upcoast and downcoast from the spawning area. A sand dike would be constructed along the buffer zone to ensure that construction materials and equipment would not enter the spawning area. The buffer zone would be kept in place until the next predicted grunion run (about 14 days) to allow for the eggs to hatch and surveys show that no subsequent spawning occurred in the area.

A report will be prepared within two weeks of the completion of each grunion survey and submitted to the City of San Clemente and the appropriate wildlife and regulatory agencies.

1.2 Nearshore Reefs and Surfgrass Resources

A sediment monitoring program and surfgrass health inventory will be conducted at the nearshore zone off each site that is receiving beach fill as part of a project (and at Mariposa Point is fill is planned at North Beach during a project). Monitoring will occur prior to and after beach fill placement occurs at each site. A series of nearshore reef monitoring sites will be established offshore of each beach fill site and at Mariposa Point, and coordinates will be determined using Differential GPS. At each site, sand levels on the reef will be measured. Baseline measurements will be taken 30 days before beach fill operations will occur and be used as a benchmark. At each site, random surfgrass percent-cover measurements and surfgrass blade-length measurements will be collected. If sand is covering surfgrass, then sand depth over surfgrass and surfgrass blade length will be measured.

In addition, the presence and health of other macrophytes (i.e., *Egregia* and *Eisenia*) will be noted and the amount of any sand deposition over these plants will be estimated. A random

point-contact assessment of the reef cover will also be conducted using a 0.25 square meter sampling quadrat. The purpose of the point-contact study is to provide an estimate of the types and amount of sand and/or marine biological cover on the nearshore reefs that may be under the influence of the beach fill sediment movement.

Surveys will be conducted after the completion of beach fill at each of the four sites at days 30, 90, 180 and 360 after construction. A report will be prepared within four weeks of the completion of each survey and submitted to the City of San Clemente and the appropriate wildlife and regulatory agencies. In the event that it is determined that nearshore reefs and surfgrass meadows are being negatively affected by beach fill operations, the project will either be curtailed or stopped.

1.3 Pre-Project Bird Monitoring

A pilot shorebird monitoring program is proposed to generally evaluate shorebird usage and determine the general effects of beach fill projects to restoring shorebird habitat. This pilot monitoring effort would include conducting rough counts of shorebirds at the beach fill site by volunteers from the Audobon Society, other naturalist groups, or possibly by City lifeguards who would be supervised by a qualified ornithologist. The data would then be analyzed by an ornithologist or biologist using non-statistical methods to develop preliminary conclusions as to the effects of the beach fills on restoring shorebird habitat. This monitoring effort may be revised after the initial pilot efforts, if deemed necessary.

2. PHYSICAL MONITORING

2.1 Turbidity

Turbidity monitoring will be conducted to prevent impacts to least tern and snowy plover foraging from increased turbidity caused by fines suspended in the nearshore. Turbidity monitoring will be conducted during construction of the beach fills by visual observation to ensure that the turbidity plume does not increase significantly over ambient conditions for extended duration.

Turbidity will be first monitored visually from a shore-based vantage point (e.g., the pier, or bluffs backing the coast) by a monitor observing the placement of the beach fill. If observations indicate a significant change in visibility over ambient conditions as judged by the monitor, then field measurements will occur. A 100% decrease in visibility as estimated by the monitor for a period of more than four days will warrant a temporary halt to operations and reduction of the placement rate until conditions return to ambient. Observations will be documented with photos, and maps of maximum daily plumes will be made and assembled into a report submitted 30 days after construction. This approach was applied successfully for the Goleta Beach Demonstration Project.

2.2 Beach Profiling

Beach profile surveys will be conducted prior to and after construction of the beach fills. The City of San Clemente has established a citywide yearly beach-profiling program that will help supplement the beach profiling monitoring. Profiling will occur immediately after construction and at six and twelve months after construction. Beach profiles to be utilized for this program are those at North Beach, Linda Lane and T-Street.
A licensed surveyor experienced with the survey methods and the specific project site, will survey the beach profiles. Four profiles exist that will be used for this study. The tasks include:

1. Re-establish three beach profile transects. The attached figure shows the profile locations.
2. Record beach and seabed elevation along the profiles from the back of the beach out to the depth of closure (estimated to be approximately –40 feet relative to MLLW). Survey equipment to be used includes:
3. Standard survey equipment (level, Global Positioning System or GPS, rod) for work on land; and
4. A survey boat with fathometer and GPS for work on the water to tie into the land profile.
5. Reduce data for interpretation and reporting.

2.3 Surfing

Surfing is a special attribute for San Clemente and the rest of southern California. San Clemente's beaches are renowned for their high-quality surfing conditions. Also, the value of the surfing community and industry to the City is great. As such, the City will monitor project effects to surfing using the best qualitative and quantitative scientific methodologies available. Methods include:

1. Document morning conditions on videotape weekly for 2 weeks prior to, and 8 weeks following beach fill construction;
2. Estimate wave height, type of wave (hollow or mushy), breaker distance from shore, length of peel, and existence of backwash;
3. Conduct standardized interviews with surfers using a questionnaire; and
4. Estimate the density of surfers at each site between North Beach and T-Street during videotaping.

3. REPORTING

Reports will be issued after each project and at the end of each year. Specifically, the City will submit a post-project report to all agencies (per requirement of the U.S. Army Corps of Engineers) containing the items below:

1. All information collected as required by the special conditions of the USACE permit. The report will indicate whether all general and special permit conditions were met. Any violations of the permit will be explained.
2. The post-discharge report shall include the following information:
   A. Corps permit number;
   B. total volume placed at each site;
   C. modes of transportation;
   D. form of material; and
   E. percent sand, silt, and clay.
3. Actual start date and completion date of transportation and discharge operations.
4. Monitoring results.

Annual reports will also be issued to all resources if projects occurred during the previous year. The report will present analysis of the program performance and whether changes are needed for improvement. Per requirements of the Water Board, prior to March 1 of each year, an annual monitoring report document project activities during the prior calendar year will be submitted to the resource agencies that includes, but is not limited to:

1. All data collected for the year.
2. Assessment of the impact of beach fill activities on the beneficial uses of the project location and vicinity.
3. A description of adaptive management efforts and remedial actions that occurred during the year in response to habitat, recreational, and sediment monitoring.
4. A description of documented habitat improvement for beach and nearshore environments and adaptive management efforts for improving habitat restoration improvements from subsequent sand placement activities.

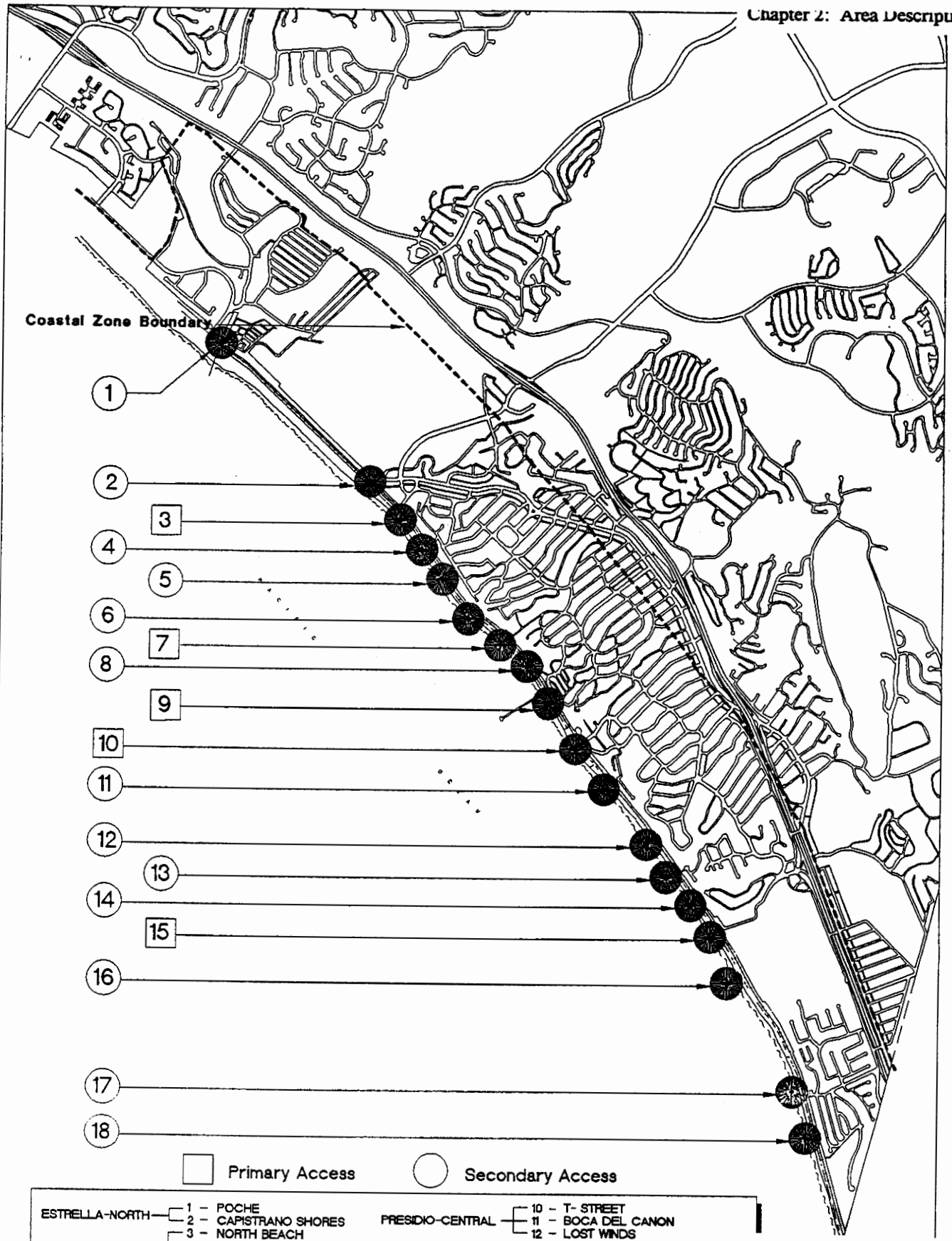


FIGURE 2-5

CITY OF SAN CLEMENTE
COASTAL ACCESS POINTS

EXHIBIT NO. 2
APPLICATION NO.
5-15-2056
Coastal Access
Points
California Coastal Commission

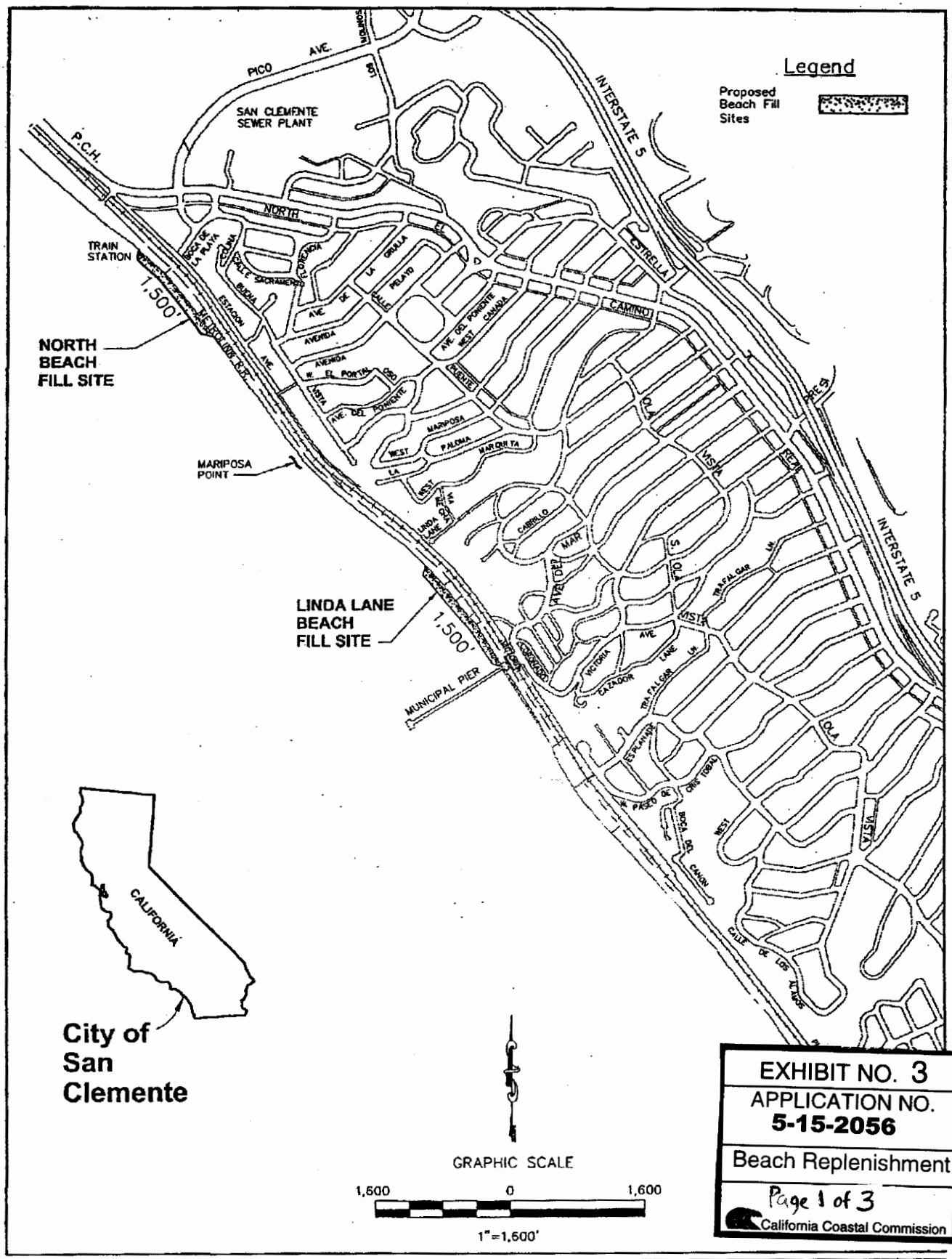
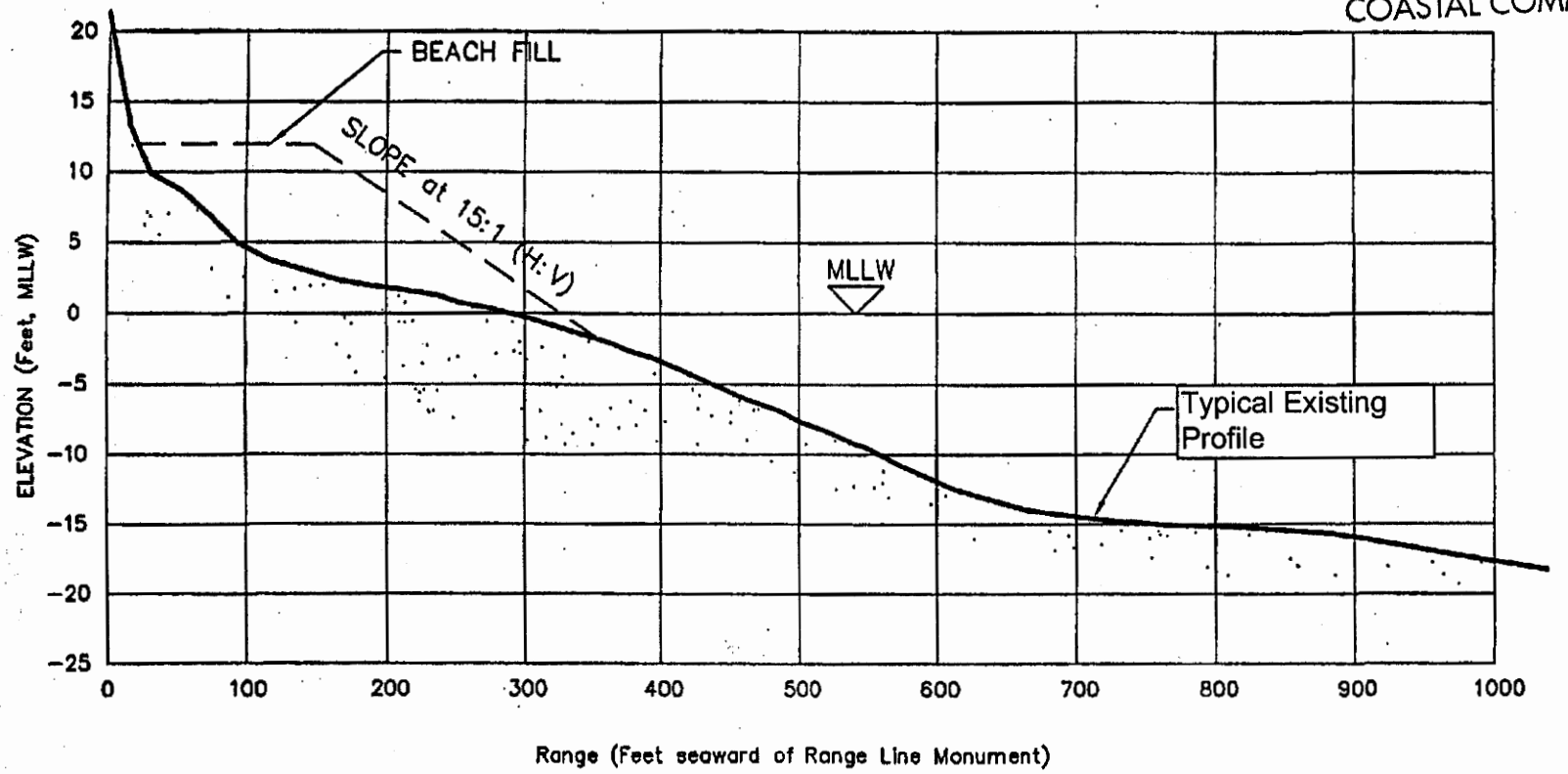
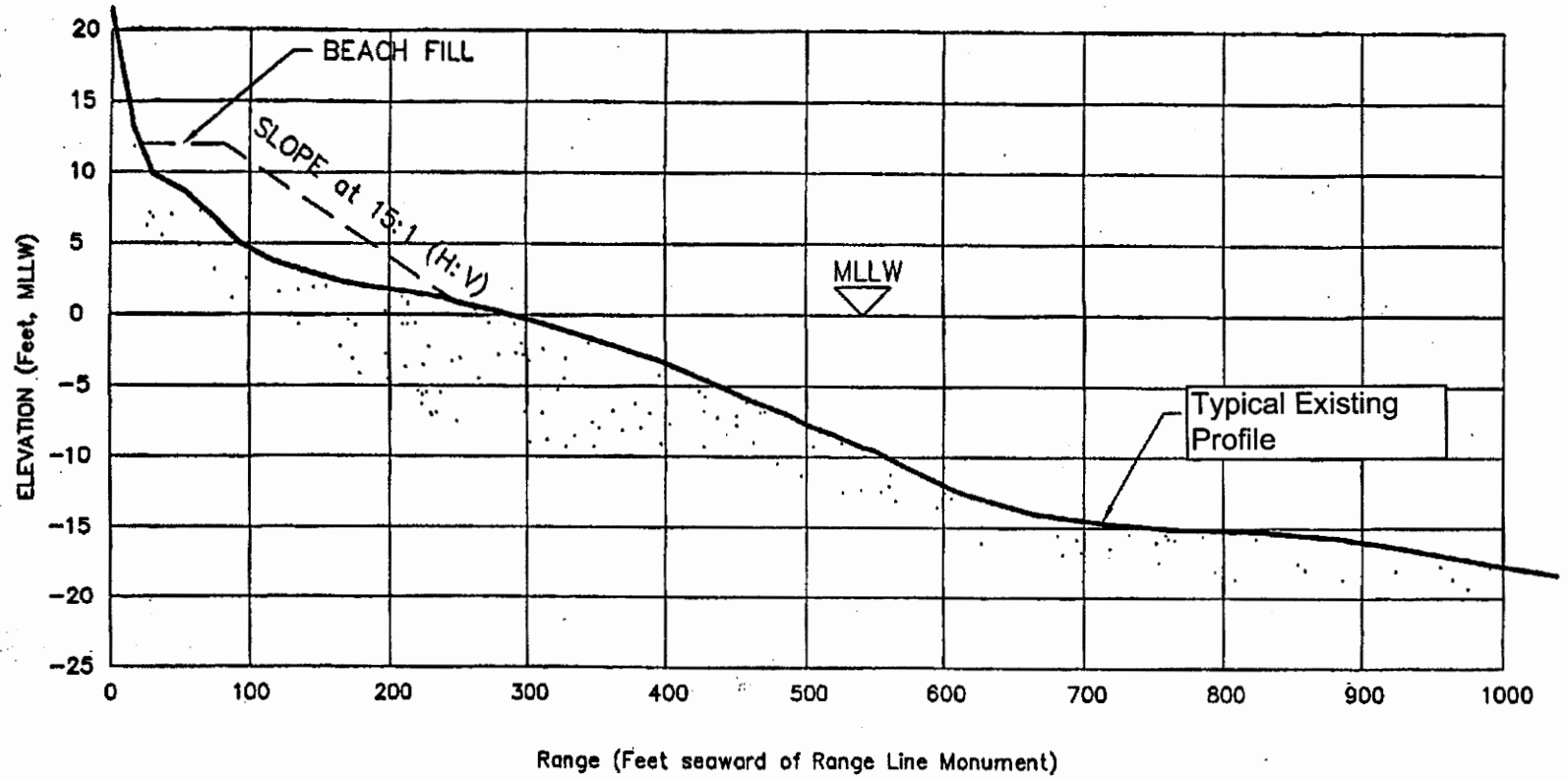


EXHIBIT NO. 3
APPLICATION NO. **5-15-2056**
Beach Replenishment
Page 1 of 3
California Coastal Commission

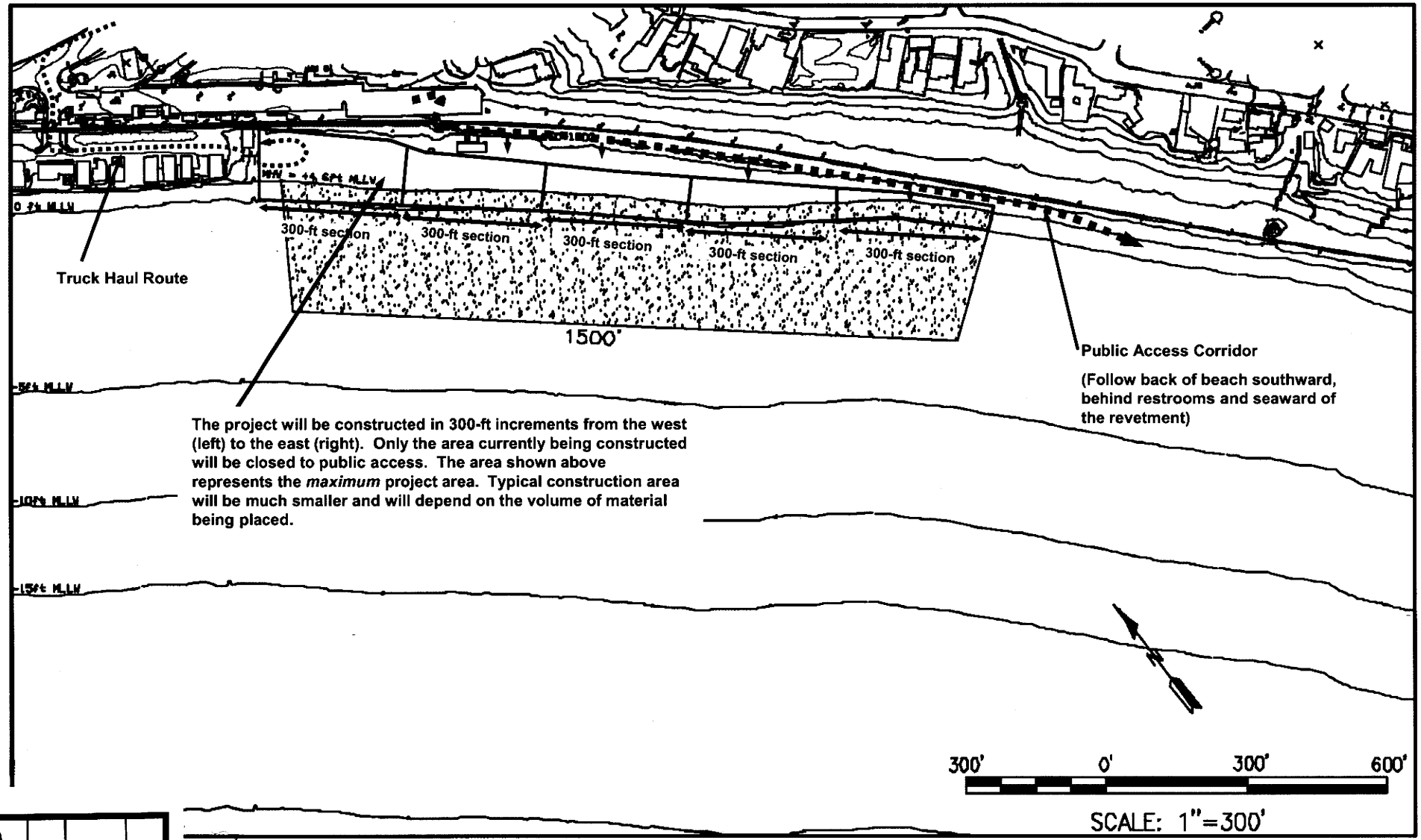
San Clemente Beach Replenishment Program	Site Map and Beach Fill Plan	



San Clemente Beach Replenishment Program	North Beach Fill Site Typical Section	



San Clemente Beach Replenishment Program	Linda Lane Beach Fill Site Typical Section	



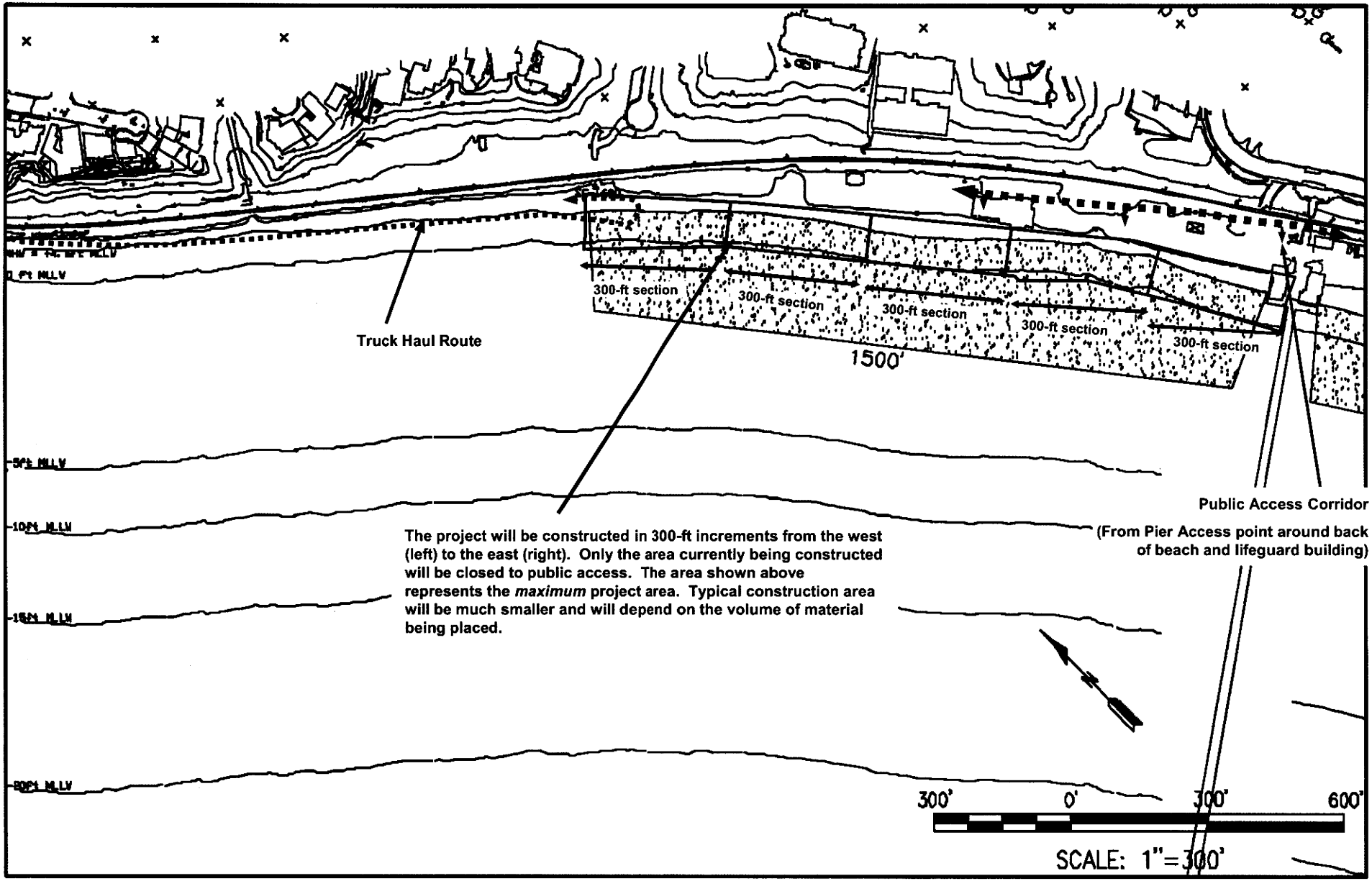
San Clemente Beach Replenishment Program

Public Access Route for Truck Delivery – North Beach

Figure 2

Michel

EXHIBIT NO. 4
APPLICATION NO.
5-15-2056
Access Routes
Page 1 of 2
California Coastal Commission



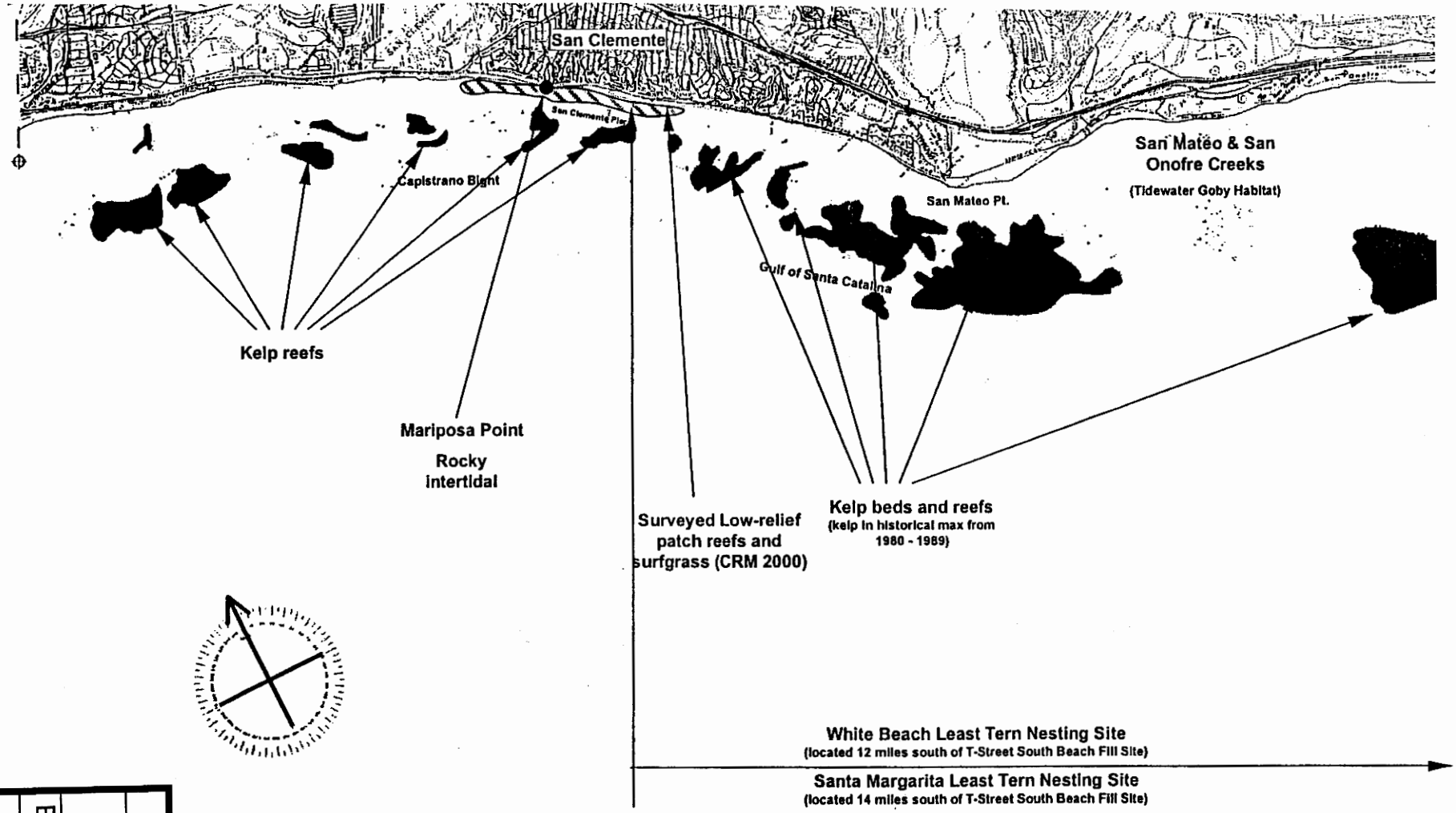
San Clemente Beach Replenishment Program	**Public Access Route for Truck Delivery – Linda Lane**	Figure 3

Prepared by: Moffatt & Nichol

Table 3.3. Proposed Number of Truck Trips and Frequency

Placement Site	Season	Maximum volume of sand placed weekly (cy)	Maximum weekly number of truck trips Projected [3]	Maximum daily number of truck trips Projected [4]	Maximum hourly number of truck trips Projected [5]	Time between trips, on Average (minutes)
North Beach	Fall/Winter (Sept 21 – Mar 21)	13,000 [1]	929	154	15.4	4
	Spring/Summer (Mar 21 – Sept 21)	10,000 [2]	714	119	11.9	5
Linda Lane (truck material around Mariposa Pt)	Fall/Winter (Sept 21 – Mar 21)	8,000 [1]	571	95	9.5	6
	Spring (Mar 21 – Memorial Day)	6,000 [2]	428	71	7.1	8
	Peak Summer (Memorial Day – Labor Day)	4,000 [2]	285	71 [4a]	7.1	8
Linda Lane, T-Street N & S (trucking via Pier at-grade crossing)	Fall/Winter (Sept 21 – Mar 21)	2,400 [6]	240 [6]	48 [6]	6 [6]	10 [6]
	Spring (Mar 21 – Memorial Day)	---	---	---	---	---
	Peak Summer (Memorial Day – Labor Day)	---	---	---	---	---

(1) Assumes a 10-week placement period for North Beach and a 6.5-week placement period for Linda Lane during fall and winter.
(2) Assumes a 4-week placement period for North Beach and Linda Lane during spring and summer.
(3) Assumes a twin trailer belly-dump truck holding 14 cy total.
(4) Assumes a 6-day workweek, Monday through Saturday.
(4a) Assumes a 4-day workweek, Monday through Thursday
(5) Assumes a 10-hour workday.
(6) Assumes a 10 cy capacity truck, a 5-day workweek (Monday through Friday), and an 8-hour workday.
(7) No construction is proposed on Sundays, or local, State, or Federal holidays.



L:

e Beach Replenishment Program

Biological Resources Map

Figure 2

EXHIBIT NO. 6
APPLICATION NO. 5-15-2056
Biological Resources Map
California Coastal Commission

Table 2.
Summary of Biological Information for Each Beach Fill Site

	BEACH FILL SITES	
	North Beach	**Linda Lane**
Longshore distance to nearest rocky intertidal habitat	No rocky intertidal at the site; nearest is 1,600 ft south at Mariposa Point	No rocky intertidal at the site; nearest is 1,600 ft north at Mariposa Point
Offshore distance to nearest surfgrass meadows*	500 ft	700 ft
Offshore distance to reefs	400 ft	700 ft
Offshore distance to Washrock reef/kelp	2,400	2,400
Offshore distance to kelp offshore of pier	4,100 ft	1,200 ft
Offshore distance to San Mateo Kelp	3.0 mi 16,000 ft	2.5 mi 13,400 ft
Longshore Distance to San Mateo Creek mouth	3.4 mi 17,592 ft	2.6 mi 13,728 ft
Distance to Camp Pendleton Least tern colony at White Beach	15.9 mi	14.3 mi
Surfgrass elevation above sea floor	+2 ft	+1 ft
Surfgrass blade length	3 ft	3 ft
Maximum amount of surfgrass blade burial offshore fill site	1.3 ft	1 ft
Maximum depth of burial of surfgrass at Mariposa Point	0.75 ft	0.5 ft
Maximum duration of sand cover of surfgrass and reefs	6 months	6 months

Table 3.
Summary of Impacts for Each Beach Fill Site

	BEACH FILL SITE	
	North Beach	**Linda Lane**
RESOURCE		
Sand beach infauna at beach fill site	Short-term, adverse, not-significant loss of infauna. Recolonization expected within one to three months following beach fill	Short-term, adverse, not-significant loss of infauna. Recolonization expected within one to three months following beach fill
Intertidal reefs and biota at beach fill site	No rocky intertidal at site. No direct impacts.	No rocky intertidal at site. No direct impacts.
Intertidal reefs, biota, and surfgrass at Mariposa Point	Short-term adverse, not-significant impact. 0.5 ft burial of rocky intertidal habitat 1,600 feet south at Mariposa Point	Short-term adverse, not-significant impact. 0.5 ft burial of rocky intertidal habitat 1,600 feet south at Mariposa Point
Subtidal patch boulder reefs (-3 to -15 ft MLLW) at beach fill site	Short-term adverse, not-significant impact Partial burial of low lying boulder reefs. 1.3 ft burial of surfgrass for 6 month duration	Short-term adverse, not-significant impact Partial burial of low lying boulder reefs. 1 ft burial of surfgrass for 6 month duration
Subtidal patch boulder reefs and surfgrass at Mariposa Point	Short-term adverse, not-significant impact Partial burial of low lying boulder reefs. 0.5 ft burial 1,600 feet south at Mariposa Point	Short-term adverse, not-significant impact Partial burial of low lying boulder reefs. 0.5 ft burial 1,600 feet south at Mariposa Point
Offshore reefs (-15 to -50 ft MLLW)	Short-term adverse, not-significant impact increase of sand above ambient levels at base of reef (<0.2 ft)	Short-term adverse, not-significant impact increase of sand above ambient levels at base of reef (<0.2 ft)
Kelp Beds	Short-term adverse, not-significant impact increase of sand above ambient levels at base of reef (<0.2 ft)	Short-term adverse, not-significant impact increase of sand above ambient levels at base of reef (<0.2 ft)
Other Macrophytes	Short-term adverse, not-significant impact. Potential for 1 ft burial of reefs for a six month duration	Short-term adverse, not-significant impact. Potential for 1 ft burial of reefs for a six month duration
California least terns	Short-term adverse, not-significant impact on individual foraging least terns due to increase in turbidity. Nesting site a minimum of 13.9 mi away from beach fill area	Short-term adverse, not-significant impact on individual foraging least terns due to increase in turbidity. Nesting site a minimum of 12.3 mi away from beach fill
Western snowy plover	Short-term adverse, not-significant impact on individuals foraging or roosting wintering individuals during construction	Short-term adverse, not-significant impact on individuals foraging or roosting wintering individuals during construction.
California grunion	No impact. No known grunion spawning habitat	**Potential adverse, but mitigatable significant impact.**
Tidewater Goby	No impact.	No impact

* assumes a net downcoast movement of the littoral drift.