



**BOARD OF DIRECTORS
MAY 27, 2011**

**AGENDA ITEM NO. 11-05-13
ACTION REQUESTED - APPROVE**

**CERTIFICATION OF FINAL ENVIRONMENTAL IMPACT
REPORT FOR REGIONAL BEACH SAND PROJECT II**

File Number 3200200

Introduction

SANDAG staff and the Shoreline Preservation Working Group (SPWG) have been working to prepare an Environmental Assessment (EA)/Environmental Impact Report (EIR) for the construction of the second Regional Beach Sand Project (RBSP II).

In 2001, SANDAG placed 2.1 million cubic yards of sand on 12 beaches as part of a regional beach nourishment project. The proposed RBSP II project is designed to provide a second regional beach sand replenishment project in the San Diego region. The receiver sites are generally in the same location as those included in the RBSP completed in 2001, with some variations due to economic and recreational needs (Attachment 1).

Discussion

SANDAG prepared a joint EA/EIR addressing the potential environmental consequences of the RBSP II, which proposes dredging and placement of sand on numerous potential receiver sites in the San Diego region. SANDAG is the lead agency responsible for compliance with the California Environmental Quality Act (CEQA), and the U.S. Army Corps of Engineers (ACOE) is the federal lead agency responsible for compliance with the National Environmental Policy Act (NEPA).

Depending on the alternative selected, the RBSP II proposes to replenish between 1.8 million and 2.7 million cubic yards of clean beach-quality sand on up to 11 receiver sites in the San Diego region. The receiver sites are located from Oceanside to Imperial Beach. Sand would be dredged from up to three offshore borrow sites. The EA/EIR analyzes three alternatives: a no project alternative, a rebuild of the first beach sand project, and a third alternative that increases quantities of material at some beaches.

In compliance with CEQA and NEPA, the EA/EIR was distributed for a 45-day public review period from January 20, 2011, to March 7, 2011. Overall, SANDAG and the ACOE received 39 letters that addressed a variety of issues, including impacts to surfing, efficacy of the modeling, lagoon sedimentation, and effects on biological resources. Most notably the EA/EIR received 25 letters regarding one of the borrow sites, known as SO5, and perceived impacts to Del Mar beaches. The comments received brought up issues for clarification and recommendations. All comments were considered and responded to and included in the EA/EIR Appendix I. Following the public review

Recommendation

The Board of Directors is asked to approve Resolution No. 2011-19, certifying the Final Environmental Impact Report for the Regional Beach Sand Project II, and adopting environmental findings pursuant to the California Environmental Quality Act.

period, clarifications and modifications as a result of input were incorporated into the EA/EIR where appropriate. The changes incorporated did not result in the identification of new significant environmental impacts.

The Draft EIR/EA did not identify a preferred alternative in order to enable SANDAG to take public and agency input into consideration in the selection of a preferred alternative. Subsequent to release of the Draft EIR/EA for RBSP II, and based upon input from the public and local and regulatory agencies, a preferred alternative was defined as Alternative 2-Reduced (2-R). The Preferred Alternative 2-R includes components of both Alternatives 1 and 2, representing a reduced alternative compared to Alternative 2. Generally, the Preferred Alternative 2-R is similar to Alternative 2. At the request of the City of Carlsbad, the receiver site at the South Carlsbad South beach site would be eliminated, and volumes proposed to be placed at the North Carlsbad beach site would be reduced to 158,000 cubic yards. Similar to Alternatives 1 and 2 as analyzed in the EA/EIR, the Preferred Alternative 2-R has no significant environmental impacts. A table outlining sand volumes for each receiver site for the alternatives is included below.

The City of Solana Beach has considered placing additional sand at Fletcher Cove – up to 360,000 cubic yards, however, this resolution and recommended Alternative 2-R would include the same sand quantity as was placed during the construction of the project in 2001; 146,000 cubic yards. If the City of Solana Beach decides to pursue the placement of additional material beyond the 146,000 cubic yards currently included in Alternative 2-R, SANDAG and the City of Solana Beach would have to determine the feasibility and cost-effectiveness of amending the regulatory permits, take necessary steps to ensure adequate CEQA compliance, and amend the permits to include any additional sand.

A copy of the EA/Final EIR presented for certification can be found on the SANDAG Web site at <http://www.sandag.org/shoreline>.

**Comparison of Sand Replenishment Volumes
Proposed RBSP II Preferred Alternative (Alternative 2-R) with
Alternatives 1 and 2 Evaluated in the Draft EIR/EA**

Receiver Site	Preferred Alternative 2-R (cubic yards)	Alternative 1 (cubic yards)	Alternative 2 (cubic yards)
Oceanside	420,000	420,000	420,000
North Carlsbad	225,000	225,000	225,000
South Carlsbad North	158,000	158,000	220,000
South Carlsbad South	0	0	142,000
Batiquitos	118,000	118,000	118,000
Leucadia	117,000	117,000	117,000
Moonlight Beach	105,000	105,000	105,000
Cardiff	101,000	101,000	101,000
Solana Beach	360,000 146,000	146,000	360,000
Torrey Pines	245,000	245,000	245,000
Mission Beach	N/A	N/A	N/A
Imperial Beach	650,000	120,000	650,000
Total	2,499,000 2,285,000	1,755,000	2,703,000

Background

Funding for the RBSP II is provided primarily through a \$19.5 million grant from the California Department of Boating and Waterways. The grant requires a 15 percent local match, which is being provided by the participating coastal jurisdictions. At this time, the City of San Diego has not provided a contribution toward the local match and may not receive sand at the Torrey Pines receiver site as part of the project. With current construction estimates, the RBSP II would exceed its current project budget by approximately \$4 million. Without matching funds coming from the City of San Diego, the project cannot afford to place sand at Torrey Pines. Once final engineering and design are completed, SANDAG staff will assess the projected expenses and the project budget and will work with the participating cities to amend the project scope as necessary. If an amendment to the scope becomes necessary, staff does not anticipate that those modifications will require changes to the EA/Final EIR for the RBSP II.

Next Steps

Subsequent to the certification of the environmental document, planned work would include continued pursuit of regulatory permits, preparation of the RBSP II final design plans, and commencement of the construction bidding process. It is anticipated that construction of the RBSP II would begin no later than April 2012 and continue through September 2012.

GARY L. GALLEGOS
Executive Director

Attachments: 1. Map of Proposed RBSP II Borrow and Receiver Sites
2. Resolution No. 2011-19 and Findings, Certifying the Final Environmental Impact Report Prepared for the Regional Beach Sand Project II and Adopting Environmental Findings Pursuant to the California Environmental Quality Act

Printed copies of the Environmental Assessment/Final Environmental Impact Report for the RBSP II have been provided to Board members only; a CD has been included for others; and the entire document is available free of charge at www.sandag.org/shoreline or on CD by contacting the Public Information Office at (619) 699-1950. Copies of the document in printed format may be purchased for the cost of reproduction.

Key Staff Contact: Shelby Tucker, (619) 699-1916, stu@sandag.org

Funds are budgeted in Work Element #3200200



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RESOLUTION

NO. 2011-19

RESOLUTION
CERTIFYING THE FINAL ENVIRONMENTAL IMPACT REPORT
PREPARED FOR THE REGIONAL BEACH SAND PROJECT II AND
ADOPTING ENVIRONMENTAL FINDINGS PURSUANT TO THE
CALIFORNIA ENVIRONMENTAL QUALITY ACT

WHEREAS, SANDAG has been coordinating with the Cities of Oceanside, Carlsbad, Encinitas, Solana Beach, San Diego, and Imperial Beach as well as other local, state, and federal agencies and organizations on the Regional Beach San Project II (RBSP II); and

WHEREAS, a joint Environmental Assessment/Environmental Impact Report (EA/EIR) (SCH#2010051063) describing the potential environmental impacts of the proposed RBSP II has been prepared pursuant to the California Environmental Quality Act of 1970 (CEQA) and the National Environmental Policy Act of 1969 (NEPA); and

WHEREAS, SANDAG is the lead agency for the RBSP II under CEQA and the U.S. Army Corps of Engineers (ACOE) is the lead agency under NEPA; and

WHEREAS, SANDAG issued a Notice of Preparation (NOP) of a Draft EIR on May 21, 2010, and circulated the NOP for a period of 30 days pursuant to State CEQA Guidelines; and

WHEREAS, SANDAG, pursuant to State CEQA Guidelines, publicly noticed and held three public scoping meetings on June 3, 2010, at 12:30 p.m. at SANDAG, June 3, 2010, at 6 p.m. in the City of Encinitas, and June 8, 2010, at 6 p.m. in the City of Imperial Beach, for the purpose of soliciting comments from the public and potential responsible agencies, including details about the scope and content of the environmental information related to the responsible agency's area of statutory responsibility as well as the significant environmental issues, reasonable alternatives, and mitigation measures that the responsible agency would have analyzed in the Draft EA/EIR; and

WHEREAS, approximately 16 written statements were received by SANDAG in response to the NOP, which assisted SANDAG in narrowing the issues and alternatives for analysis in the Draft EA/EIR; and

WHEREAS, the EA/EIR analyzed the impacts of two construction scenarios for two project alternatives and the No Project Alternative; and

WHEREAS, a Draft EA/EIR was completed and released for public review on January 26, 2011, and SANDAG initiated a 45-day public comment period by filing a Notice of Completion and Notice of Availability with the State Office of Planning and Research; and

WHEREAS, pursuant to State CEQA Guidelines, SANDAG also provided a Notice of Availability to all organizations and individuals who had previously requested such notice and published a Notice of Availability for the Draft EA/EIR on or about January 26, 2011, in regional newspapers, including one of general circulation; and

WHEREAS, SANDAG placed copies of the Draft EA/EIR at the offices of SANDAG, participating local coastal jurisdictions, local public libraries, and on the SANDAG Web site; and

WHEREAS, during the 45-day public comment period, SANDAG consulted with and requested comments from responsible and trustee agencies, other regulatory agencies, and others pursuant to State CEQA Guidelines, and received 39 written statements; and

WHEREAS, the Public Notice and review procedures required by both CEQA and NEPA have been complied with; and

WHEREAS, all potential significant adverse environmental impacts were analyzed in the Draft EA/EIR; and

WHEREAS, SANDAG prepared the EA/Final EIR consisting of the Draft EIR, comments and recommendations received on the Draft EA/EIR, a list of persons, organizations, and public agencies commenting on the Draft EA/EIR, the responses of the lead agency to significant environmental points raised in the review and consultation process, and any other information, and pursuant to State CEQA Guidelines, SANDAG provided draft responses to comments to all commenting persons and agencies; and

WHEREAS, all the requirements of CEQA and the State CEQA Guidelines have been satisfied by SANDAG in the EA/Final EIR, which provides detailed information to allow evaluation of the potentially significant environmental effects of the RBSP II; and

WHEREAS, all of the findings and conclusions made by SANDAG pursuant to this Resolution are based upon the oral and written evidence presented to it as a whole, and not based solely on the information provided in this Resolution; and

WHEREAS, SANDAG (401 B Street, Suite 800, San Diego, CA 92101, ph. (619) 699-1900) is the custodian of the document and supporting materials that constitute the record of the proceedings upon which the decision will be based and will provide such materials upon request; and

WHEREAS, all other legal prerequisites to the adoption of this Resolution have occurred; and

WHEREAS, the Final EIR reflects the independent judgment and analysis of SANDAG and has been presented to the Board of Directors for consideration prior to taking action on the RBSP II EA/Final EIR;

NOW THEREFORE

BE IT RESOLVED by the Board of Directors that the foregoing recitals are true and correct and incorporated by this reference; and

BE IT FURTHER RESOLVED that the Board of Directors certifies the EA/Final EIR, which has been completed in compliance with CEQA and hereby selects project alternative 2-Reduced (2-R), detailed in the Preface to the EA/ Final EIR, as the "project," which assumes 24 hours per day, 7 days per week construction activity and would place ~~2.5~~approximately 2.3 million cubic yards of sand at 10 receiver sites.

BE IT FURTHER RESOLVED that the Board of Directors finds as follows:

1. At a regular session assembled on May 27, 2011, the Board of Directors determined based on all of the evidence presented, including, but not limited to, the EA/Final EIR, written and oral testimony given at meetings and hearings, and submission of testimony from the public, organizations, and regulatory agencies, that changes or alterations have been required in, or incorporated into, the project, which avoid significant effects on the environment. The avoidance measures and design features that have been incorporated into the project are summarized in Exhibit 1.
2. Environmental impacts associated with the RBSP II are less than significant and do not require mitigation, ~~however, to ensure that no significant impacts occur as a result of RBSP II sedimentation, a monitoring plan will be implemented and in the event of an impact, mitigation measures will be implemented as provided in Exhibit 1.~~
3. No comments made in the public hearings conducted by SANDAG, or any additional information submitted to SANDAG, have produced significant new information requiring recirculation or additional environmental review under State CEQA Guidelines.

BE IT FURTHER RESOLVED that the Board of Directors makes findings as required by State CEQA Guidelines and attached hereto as Exhibit 1 and incorporated fully by this reference.

PASSED AND ADOPTED this 27th day of May 2011.

CHAIRPERSON

ATTEST: _____

SECRETARY

Attachment: Exhibit 1 - Summary Project Alterations, Avoidance Measures, Design Features and/or Mitigation Measures for the San Diego Regional Beach Sand Project II

MEMBER AGENCIES: Cities of Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, Vista, and County of San Diego.

ADVISORY MEMBERS: California Department of Transportation, Metropolitan Transit System, North County Transit District, Imperial County, U.S. Department of Defense, San Diego Unified Port District, San Diego County Water Authority, Southern California Tribal Chairmen's Association, and Mexico.

Exhibit 1 to Resolution 2011-19

SUMMARY PROJECT ALTERATIONS, AVOIDANCE MEASURES, AND/OR DESIGN
 FEATURES ~~AND/OR MITIGATION MEASURES~~
 FOR THE SAN DIEGO REGIONAL BEACH SAND PROJECT II

This document serves as the summary conclusions for the Environmental Assessment/Final Environmental Impact Report (EA/Final EIR) evaluating the San Diego Regional Beach Sand Project (RBSP) II and serves three main purposes. First, a summary discussion of the process by which alternatives were derived is provided. Next, for the alternative selected for implementation of the project (Alternative 2-R), a summary analysis of why no significant environmental impacts would occur for each environmental issue area is given. Project design features and monitoring commitments also are summarized. ~~Mitigation requirements, if significant impacts are identified as a result of monitoring, are then identified.~~ Finally, the rationale for not recirculating the Draft EA/EIR is provided.

The RBSP II proposes to replenish approximately 2.35 million cubic yards (mcy) of beach-quality sand on 10 receiver sites in the San Diego region (Alternative 2-R in the Preface to the EA/Final EIR). The receiver sites are located from Oceanside in the north to Imperial Beach in the south. Sand would be dredged from up to three offshore borrow sites. The purpose of the proposed beach replenishment project is to replenish beaches in accordance with the Shoreline Preservation Strategy (SPS) and Regional Sediment Management (RSM) Plan. The proposed action would serve four main functions: (1) to replenish the three littoral cells in the San Diego region and receiver sites with suitable beach sand; (2) to provide enhanced recreational opportunities and access at the receiver sites; (3) to enhance the tourism potential of the San Diego region; and (4) to increase protection of public property and infrastructure.

PROCESS BY WHICH ALTERNATIVES WERE DERIVED

In fall 2007, SANDAG staff requested funding from the California Department of Boating and Waterways (DBW) for the planning and construction of a second beach sand project. The goal was to build upon the success of the 2001 RBSP I project and maximize sand replenishment at regional beaches within a fixed budget. Funding for the project comes from two sources. The California Department of Boating and Waterways has committed 85 percent with the required 15 percent match provided by participating municipal jurisdictions. To successfully implement the project, SANDAG directed the environmental and engineering consultants to create a project in the most environmentally sensitive manner and to, by design, avoid significant environmental impacts. By designing such a project, SANDAG could more readily obtain necessary permit approvals, minimize costs for post-construction monitoring, and maximize funds to pay for dredging, thereby maximizing sand quantity.

SANDAG initiated an iterative process of identifying sensitive resources, defining appropriate borrow sites and dredge locations, and designing appropriate receiver sites and footprints, which were based on lessons learned from the 2001 RBSP I, and RBSP I monitoring results, fieldwork in 2009, and updated sand transport modeling. Throughout this process, the resource agencies were consulted and their input utilized (Sections 1.5 and 8.0 of the EA/Final EIR). Over time, some potential borrow sites were eliminated from further consideration, dredge locations were altered, receiver site footprints were modified, and sand quantities varied.

To define appropriate borrow sites, eight potential offshore borrow sites were evaluated for beach replenishment suitability based on grain size and sediment. Of those, five were eliminated. Within the remaining three borrow sites, the dredge locations were refined over time to avoid resources that were identified during the environmental process, e.g., reefs and underwater archaeological sites. The borrow sites that were eliminated and/or modified are described in Section 2.3 of the EA/Final EIR.

To predict the movement of sand once placed on the various receiver sites, and therefore potential impacts to sensitive resources, both analytical and numerical modeling (using the GENESIS model) was performed. Due to engineering, environmental, and budgetary constraints, some potential borrow sites were eliminated from further consideration and some receiver site footprints were modified or sites were eliminated. Sand quantities proposed for specific receiver sites also were varied from RBSP I for alternatives evaluated in the EA/EIR. Two potential alternatives ranging in quantity from 1.8 to 2.7 mcy, were evaluated in detail in the EA/Final EIR. More information about all of the alternatives eliminated from detailed consideration is found in Section 2.3 of the EA/Final EIR. Subsequent to release of the Draft EA/EIR for RBSP II, and based upon input from the public and local and regulatory agencies, a Preferred Alternative has been defined, referred to as Alternative 2-Reduced (2-R). The Preferred Alternative 2-R is the proposed project and incorporates components of both Alternative 1 and Alternative 2.

SUMMARY OF ENVIRONMENTAL ANALYSIS

Implementation of Alternative 2-R would not result in any long-term significant direct or indirect effects because project design features have been incorporated into the project to avoid impacts. ~~A monitoring program has been designed to verify no significant long term impacts, but if monitoring does identify such impacts in the future, then mitigation would be implemented as specified in the EA/Final EIR.~~ These design features and monitoring commitments are outlined in Table R-1. A summary of the potential environmental effects for each issue in the California Environmental Quality Act (CEQA) Environmental Checklist (Appendix G of CEQA) is provided below. Each issue area was analyzed in the EA/Final EIR.

Geology and Soils

After placement of sand onto a receiver site, the existing beach area north and south of the receiver site would widen as a result of longshore and cross-shore spreading. No long-term significant impacts to coastal geology are anticipated due to sediment transport or the incremental temporary increased sediment thickness at the existing, seasonal offshore sandbar. No significant geology and soils impacts are anticipated to occur at the borrow sites, as the proposed dredging activities would remove sand from borrow sites outside (deeper than) the depth of closure and place sand within the three littoral cells. New sand would be introduced to the system. As such, the borrow sites would not intercept sand that typically rebuilds beaches in the summer. Accordingly, no mitigation measures would be necessary as stated in Section 4.1 of the EA/Final EIR.

Coastal Wetlands

Turbidity plumes would be localized near the receiver site boundaries; if project-related turbidity enters any of the various lagoons, particulate concentrations would be low given the distance to the lagoon and rapid settling rate of the predominantly sandy material. Impacts would not be significant. Potential sedimentation due to project implementation is anticipated and predicted based on a methodology developed in coordination with the lagoon entities concurrent with release of the Draft EA/EIR for public review. Table R-1 identified design features and monitoring commitments incorporated into the project to ensure no significant impacts (refer to Section 4.2 of the EA/Final EIR).

Water Resources

None of the fill material would exceed criteria established in the Basin Plan for bacteria, dissolved oxygen, contaminants and sulfides, nutrients or pH, and there would be no impacts associated with placement of fill material at the receiver sites. Based on the relatively localized nature of the dredge turbidity plumes and rapid diluting capacity of the open ocean, turbidity would not result in significant impacts to water quality at any of the borrow sites. Due to the localized nature of turbidity plumes, and the presence of training dikes, there would be no significant impacts to water quality at the receiver sites. This assessment is supported by Section 4.3 of the EA/Final EIR.

Water quality monitoring would be required as part of the Regional Water Quality Control Board (RWQCB) 401 Water Quality Certification Order. Table R-1 identifies design features and monitoring commitments incorporated into the project to ensure no significant impacts occur.

Biological Resources

There would be no significant direct impacts from sand placement as sensitive resources (vegetated hard substrate) have been avoided by design and non-sensitive biological resources (such as benthic invertebrates) at the receiver sites are adapted to seasonal burial and would quickly recolonize. A monitoring program has been designed for the period of sand placement to ensure that no significant impacts occur to grunion (see below). There would be no significant indirect impacts due to turbidity and no significant impacts to the California least tern or western snowy plover with implementation of specific design features, and because each receiver site has unaffected shoreline nearby to allow for foraging.

A risk of partial sedimentation to 0.1 acre of hard substrate with surfgrass has been identified at Batiqitos, with minimal areas at risk of sedimentation at ~~Solana Beach and~~ Torrey Pines. No burial of surfgrass for extended periods of time is anticipated. No burial or partial sedimentation of kelp beds is predicted. Under the worst-case, partial sedimentation is predicted on up to 1.26 acres of reefs with sensitive indicators and burial of up to 1.1 acres of such reef also could occur. Sedimentation would not result in significant, long-term indirect impacts because surfgrass is morphologically adapted to withstand shifting sand movement with long shoots that can extend above a variety of sand depths and are protected from sand abrasion by fibrous sheaths. ~~Monitoring to verify no significant impacts would occur in focused areas with sensitive marine habitat and a higher risk of sedimentation than RBSP I. Mitigation would be required as described below, if warranted by monitoring (see Table R-1).~~

Dredging would impact up to 275 acres of surface area, which is less than 2 percent soft-bottom habitat on the inner shelf within the local region. Biota in these locations would recover quickly

and the impact would not be significant. Dredging would create localized turbidity plumes but buffers have been provided between the dredge area and marine resources (i.e., artificial reefs) and the amount of turbidity reaching reefs would be expected to be within normal ranges. There would be no significant impacts. This assessment is supported by Section 4.4 of the EA/Final EIR.

Cultural Resources

While the borrow sites have been designed to avoid locations of high probability for cultural resources, there are sediments of low to moderate probability for archaeological sites within the dredge footprint of the borrow sites. A monitoring program will be designed to identify archaeological sites during dredging activities, and avoidance measures implemented as warranted, as described in Table R-1 and referenced in Section 2.5 of the EA/Final EIR.

Land and Water Use

The project would result in a beneficial impact by enhancing/creating new recreational beach area, totaling 181.3 acres (new area post-construction). There would not be significant, long-term impacts to surfing or other recreational pursuits. Some temporary incremental sediment accumulation is anticipated in reef areas, however, natural transport processes move sediments through these reef areas under normal conditions. Changes in the formation of offshore sandbars are a naturally occurring event, and there are seasonal periodic changes to surfing localities. Due to the short-term nature of dredging and distance from underwater resources, no significant long-term impacts are anticipated at the borrow sites. The replenishment action would not preclude the viability of any planned land use, either onshore or offshore. This assessment is supported by Section 4.6 of the EA/Final EIR.

Aesthetics

Sand placement operations would be short-term overall, and the daily construction area would travel down the beach, which would reduce the visual contrast to any one sensitive viewer. In addition, the end result would be enhancement of the region's beaches, and the visual impact would be considered less than significant. Any discoloration of the sediment would be short-term (USACOE, 1984) and no permanent adverse visual conditions would result from the discoloration of fill materials at any of the receiver beaches. Dredging activity at the borrow sites would not be highly evident or dominate the landscape, and the impact would not be regarded as significant. This assessment is supported by Section 4.7 of the EA/Final EIR.

Socioeconomics

There would be no significant direct impacts to the commercial fishery as a result of area preclusion of fishing effort. This conclusion is based on the distribution of the commercial catch among fish blocks along the coast, and the relatively low contribution of the North County area, where most dredging and sand placement would occur, to the overall area fishery. Also, there would be no long-term damage to target species populations as a result of sedimentation of nursery habitat areas for commercial species.

In terms of the regional fishery, there would be no significant impact to the overall fishery. Individual lobster fishermen and, to a lesser extent, urchin and live trap (primarily crab and sheephead) fishermen may experience temporary localized effects from short-term displacement from favored small area fishing locations. Nursery habitat may experience short-

term localized effects but the relative size of potentially affected areas would be small compared to the overall available habitat.

Impacts to help harvesting activities would be less than significant, as noted above. Impacts to sport fishermen and divers will be less than significant. Short-term effects may be experienced by dive operations in the “Wreck Alley” area off of Mission Beach during dredging operations at the adjacent borrow site, and there may be temporary effects to sport fishing and diving resulting from localized turbidity plumes at borrow and receiver sites, but not at significant levels. Table R-1 identifies design features and coordination commitments incorporated into the project to ensure no significant impacts occur. This assessment is supported by Section 4.8 of the EA/Final EIR.

Public Health and Safety

During beach replenishment operations, safety measures would be implemented in the vicinity of the receiver beaches, including fencing, barricades, and flag personnel, as necessary. SANDAG would coordinate with the respective jurisdiction to temporarily relocate non-permanent lifeguard towers during construction. Near permanent lifeguard towers, the line-of-sight from tower viewing platforms would be preserved. Sediment characterization analyses confirmed that replenishment material is clean beach-quality material and would not pose a threat to public health and safety. Beach fill would not be placed above the height of the existing beach berm so increased scarp heights would not occur. For vessel safety, an approximate 300-foot-radius buffer area would be established around the mono buoy in offshore waters and a buffer area would be maintained around the dredge offshore waters, to allow proper anchoring and pump line operation, and the anchoring area would be included in the Notice to Mariners, which is overseen by the U.S. Coast Guard. Table R-1 identifies these and other design features and coordination commitments incorporated into the project to ensure no significant impacts occur, as stated in Section 4.9 of the EA/Final EIR.

Structures and Utilities

At all receiver sites, any sand placed around storm drain outlets would be dug out to allow proper drainage. The bottom of public stairs and public access ramps may be covered by the fill, which would tend to stabilize the stairways. Sand at the base of lifeguard towers would provide additional protection against storm surge damage and would temporarily benefit the lifeguard towers. Table R-1 identifies these and other design features incorporated into the project to ensure no significant impacts occur. Overall, as stated in Section 4.10 of the EA/Final EIR, impacts would be less than significant.

Traffic

Beach replenishment activities would not significantly affect traffic, as the project would generate very few trips. Personnel would park in public parking areas and would not create significant parking impacts given the small size of the land-side beach construction crew (approximately 12 persons). There would be no significant impacts to traffic. This assessment is supported by Section 4.11 of the EA/Final EIR.

The replenishment of receiver sites where there is currently little sand could make these locations more attractive to both residents and tourists, and it is expected that traffic could increase accordingly. The use of parking also would increase. Traffic and parking congestion at beaches are an accepted occurrence, and it is not common practice to design infrastructure to

accommodate these peak loads. Additionally, the relatively limited amount of sand placed at an individual receiver site is predicted to remain noticeable at the beach for an average of four to five years (as shown in Table 4.1-1 of the EA/Final EIR). This would reduce the long-term attractiveness of a site relative to other nearby locations, or to its condition prior to project implementation. The long-term impact of the proposed beach sand replenishment on traffic and parking would not be significant.

Air Quality

The sand being disturbed would be damp as it is spread on the beach. Therefore, the potential for dust generation would be very low, and impacts would be less than significant. The emissions of CO, ROC, and NO_x from dredge and construction equipment would be less than the General Conformity de minimis thresholds, and less than 10 percent of the area's annual emissions forecast. Therefore, the proposed action is presumed to conform to the State Implementation Plan (SIP), and a formal conformity determination is not required. Emissions would not expose sensitive receptors to pollutant concentrations. Air quality impacts would be less than significant, as supported by Section 4.12 of the EA/Final EIR.

Noise

While dredging activity and placement of the conveyor pipe and sand distribution at the receiver sites would generate noise, the impact would be less than significant. Nighttime and weekend work at receiver beaches would be performed under a noise variance or equivalent from each local jurisdiction where required. Residents of homes near the receiver sites would be notified prior to the work, and work would occur for no more than three consecutive days within 200 feet of an individual home. This assessment is supported by Section 4.13 of the EA/Final EIR.

Greenhouse Gas Emissions

While construction-related emissions would occur as a result of implementation of the proposed project, emissions from the proposed project activities are well below the metric provided by the Council on Environmental Quality (CEQ) and do not require additional analysis. The project's Greenhouse Gas (GHG) emissions would not have a significant impact, either directly or indirectly, on the environment and would not conflict with California's GHG-reduction goals and strategies of Assembly Bill 32 (2006). The replenishment would act as a buffer against increasing sea level rise, which would increase the receiver sites' resiliency to sea-level rise, but only in the near-term. No significant impacts from GHG emissions are anticipated through implementation of the project as supported by Section 4.14 of the EA/Final EIR.

Agricultural Resources

This project would not convert farmland to nonagricultural use, nor would this project conflict with the existing agricultural zoning, as there is no farmland in the project area. No changes to the existing environment that could result in conversion of farmland to nonagricultural use will occur. No agricultural land would be affected under the proposed project, as stated in Section 6.5 of the EA/Final EIR.

Hazards and Hazardous

No hazards would be created and no hazardous materials would be emitted or used for the proposed project. The proposed project would not contribute to the formation of scarps, and sand would not be placed above the height of any existing beach berm. No replenishment sites are included on a list of hazardous materials sites pursuant to Government Code Section 65962.5. No impacts due to hazards or hazardous materials would occur under the proposed project, as stated in Section 6.5 of the EA/Final EIR.

Mineral Resources

Testing of subsurface deposits indicate that no known mineral resources would be affected by the proposed project, as stated in Section 6.5 of the EA/Final EIR.

Population and Housing

The proposed project would not induce substantial population growth, displace existing housing, or displace people, as stated in Section 6.5 of the EA/Final EIR.

Public Services

No public services (including police and fire protection), facilities, or infrastructure (including parks and schools) would be affected by the proposed dredging and beach replenishment operations, as stated in Section 6.5 of the EA/Final EIR.

MONITORING

Monitoring requirements have been incorporated into the project to reduce the potential for significant effects, as stated in Section 2.5 of the EA/Final EIR and summarized in Table R-1. The requirements include preconstruction monitoring and/or training for beach conditions, nearshore biological resources, grunion, marine mammals and turtles, Pismo clams, and cultural resources. The requirements also include monitoring during construction to verify water quality within 401 permit parameters, minimize construction in areas of spawning grunion, implement a Marine Mammal and Turtle Contingency Plan, protect California least tern and western snowy plover foraging and nesting sites, and avoid significant archaeology impacts during dredging activities. Postconstruction monitoring would be primarily focused on physical profile monitoring ~~and confirming the absence of significant impacts to sensitive nearshore biological resources that may occur as a result of sediment transport.~~

MITIGATION (if monitoring identified significant impacts)

~~Similar to RBSP I, SANDAG would try to negotiate a “not-to-exceed” cap on mitigation costs as a key part of the permit conditions related to mitigation. The potential worst-case acreage for 2:1 enhancement/replacement would be based on the acreage of sensitive habitat potentially subject to partial burial. If monitoring identifies significant long-term impacts, SANDAG, in cooperation with the city in which impacts occur, would prepare a mitigation plan in coordination with the relevant regulatory and resource agencies and implement required mitigation. As noted above, that mitigation would involve restoration of like habitat as a first priority. In the case of surfgrass mitigation, feasibility would be determined by an experimental five-year pilot project of at least 25 percent of the area confirmed to have been impacted, or not less than 0.1 acre, or some minimum size otherwise acceptable to the resource agencies. If that experimental project was determined not to be successful or if full area mitigation is not likely to be feasible, then 2:1 mitigation of out-of-kind habitat would be implemented via augmenting an existing natural reef. The decision regarding implementing out-of-kind mitigation would be done in consultation with the regulatory and resource agencies.~~

RATIONALE FOR NOT RECIRCULATING DRAFT EA/EIR

Section 15088.5 of the CEQA Guidelines states that a lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review, but before certification. New information has been added and revised in the Final EIR. In order for recirculation to be required for an EIR, the new information would have to be "significant," meaning that the EIR has been changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project's proponents have declined to implement.

Based on comments received, sections of the Draft EA/EIR have been clarified or expanded in the EA/Final EIR, but no new significant impacts have been identified, no impacts increased in severity, and no new mitigation measure has been identified. As such, the document was not fundamentally or basically inadequate in nature and the conclusions do not require reevaluation. Therefore, SANDAG finds that no recirculation of the EA/EIR is necessary.

Table R-1
Summary of Design Features/Monitoring Commitments
and Mitigation Measures (if monitoring identified significant impacts)

Design Features	Purpose	Timing	Implementation Responsibility
Construct longitudinal training dikes at all receiver sites	Reduce nearshore turbidity	During beach-building	Construction contractor
Maintain project web site with current construction schedule	Timely public notification	At present and continuing through construction	SANDAG
Issue Notice to Mariners and maintain 300-foot buffer around mono buoy	Warn boaters/fishermen of dredging activities to ensure avoidance	Before and during dredging activities	Coast Guard (via construction contractor)
Restrict public access at receiver sites and 300 feet around mono-buoy	Public safety during construction	During beach-building activities	Construction contractor, in coordination with local lifeguards
Relocation of temporary lifeguard towers	Public safety during construction	During beach-building activities	Construction contractor, in coordination with local lifeguards
Sand placement to avoid blocking line-of-sight at permanent lifeguard towers	Public safety during construction	During beach-building activities	Construction contractor, in coordination with local lifeguards
Shield and direct night lighting toward the ocean and away from residences and habitat	Minimize effects on residents and sensitive species	During beach-building activities	Construction contractor

Design Features	Purpose	Timing	Implementation Responsibility
Contain fill material during sand placement near storm drain outlets	Continue proper drainage	During beach-building activities	Construction contractor, in coordination with City Engineer
Generate plan for hazardous spill containment	Ensure minimal contamination from fuel leak, if any	During beach building	Construction contractor
Coordination with commercial fishermen; issue Notice to Mariners; incorporate notices into SANDAG web site	Avoid gear conflicts and provide for compensation if loss occurs	Before and during dredging operations	Coast Guard (via construction contractor) and SANDAG
Batiquitos receiver site to be constructed after September 15 (or August 1 with verification of cessation of least tern and snowy plover nesting at the W-2 nest site)	Avoid potential impacts to least tern and snowy plover nesting activities	Final engineering	Construction contractor
Flag limits of designated and proposed snowy plover critical habitat. Avoid sand placement within those limits.	Avoid direct impacts to critical habitat.	Prior to sand placement at Batiquitos and during construction.	Qualified biological consultant retained by SANDAG and construction contractor
Provide funds to remove potential predicted project-related sand accumulation to individual lagoon management entities or agencies	Maintain inlet conditions at potentially affected lagoons	Completion of construction	SANDAG

Design Features	Purpose	Timing	Implementation Responsibility
Condition contractor to avoid traversing CDFG artificial reef areas near MB-1 by hopper dredge	Avoid direct impacts and minimize indirect impacts to artificial reefs	Final engineering	Construction contractor
Condition contractor to avoid traversing kelp beds	Avoid direct impacts and minimize indirect impacts to kelp beds	Final engineering	Construction contractor
Condition contractor to avoid landfall of discharge pipeline north of the jetties of the Los Peñasquitos Lagoon jetties and south of Seacoast Boulevard in Imperial Beach	Avoid direct impact to critical habitat of western snowy plover	Final engineering	Construction contractor
Condition contractor to make landfall with discharge pipeline, or place mono buoy, north of Seacoast Boulevard in Imperial Beach	Avoid direct impacts to Tijuana Slough National Wildlife Refuge	Final engineering	Construction contractor
Design borrow sites to maintain 500 ft distance from artificial reefs, kelp, and other hard-bottom features	Avoid direct impacts to artificial reefs and kelp	Final engineering and during construction	Engineering contractor and construction contractor

Design Features	Purpose	Timing	Implementation Responsibility
Monitoring Commitments			
Conduct underwater survey of proposed anchoring, mono buoy, and routes of sinker discharge pipeline to verify absence of sensitive hard-bottom habitat; if found, relocate	Avoid direct impacts to sensitive hard-bottom habitats	Prior to construction	Qualified biological consultant retained by SANDAG
For Alternative 2, monitor rocky subtidal sensitive habitats in focused risk areas. Preconstruction and two postconstruction (years 2, 4) habitat maps	Verify no long-term adverse impacts to sensitive habitats due to sediment transport	Prior to construction and for four years, with bi-annual reports and one final report	Qualified biological consultant retained by SANDAG
Turbidity plume monitoring at receiver sites in close proximity of least tern nesting sites during the breeding season; if outside parameters then implement operational controls or halt dredging and discharge, as necessary until turbidity is within permitted parameters	Minimize potential indirect impacts to least tern foraging in vicinity of nesting sites	April 1 through September 15	Qualified biological consultant retained by SANDAG

Design Features	Purpose	Timing	Implementation Responsibility
<p>Assess habitat suitability for grunion spawning prior to construction. Monitor for grunion spawning in construction area if suitable habitat present. If spawning observed, document extent and coordinate with the California Department of Fish and Game (CDFG), United States Army Corps of Engineers (USACE), California Coastal Commission (CCC), and National Marine Fisheries Service (NMFS) and implement protective measures, as appropriate</p>	<p>Minimize impacts to grunion</p>	<p>March through August and per CDFG annual pamphlet <i>Expected Grunion Runs</i> (CDFG 2010a)</p>	<p>Qualified biological consultant retained by SANDAG</p>
<p>Conduct a preconstruction assessment of the minus tide zone north of the Imperial Beach Pier to confirm presence/absence of Pismo clam beds. If present, implement and document impact minimization measures (e.g., slow discharge rate or modification to the seaward edge of the fill), as warranted, and notify regulatory agencies</p>	<p>Minimize impacts to Pismo clam beds</p>	<p>Prior to initiation of construction (Alternative 2 only)</p>	<p>Qualified biological consultant retained by SANDAG</p>

Design Features	Purpose	Timing	Implementation Responsibility
Implement a Marine Mammal and Turtle Contingency Plan	Reduce interactions between vessels and protected marine species	Prior to initiation of construction and during construction	Qualified biological consultant retained by SANDAG
Monitor for possible underwater historic and archaeological resources. If resources found, establish a 250-foot buffer around receiver site and record with appropriate clearinghouse	Identify any significant archaeological resources (if present) to map and avoid	During project construction	Qualified cultural resource consultant retained by SANDAG
Monitor water quality per RWQCB 401 Certification, if outside parameters then implement operational controls or halt dredging and discharge, as necessary	Verify permit compliance	During beach building as per RWQCB 401 Certification	Qualified biological consultant retained by SANDAG

PREFACE

The SANDAG board is anticipated to approve an Alternative for the Regional Beach Sand Project (RBSP) II that differs from the Preferred Alternative, Alternative 2-Reduced (2-R), originally detailed in the Preface to the Environmental Assessment/Final Environmental Impact Report (EA/Final EIR). Revisions to Alternative 2-R include the placement of less sand than originally anticipated at Solana Beach (volumes would now be equivalent to Alternative 1 volumes). The description for Alternative 2-R has been updated below to reflect this change.

The Draft Environmental Impact Report/Environmental Assessment (EIR/EA) for the Regional Beach Sand Project II (RBSP II) did not identify a Preferred Alternative in order to enable SANDAG to take public and agency input into consideration in the selection of a Preferred Alternative. Subsequent to release of the Draft EIR/EA for RBSP II, and based upon input from the public and local and regulatory agencies, a Preferred Alternative has been defined, referred to as Alternative 2-Reduced (2-R). The Preferred Alternative 2-R is the proposed project and incorporates components of both Alternative 1 and Alternative 2, as described in detail in the Draft EIR/EA. Under Preferred Alternative 2-R, all cities would implement Alternative 2, except for the City of Carlsbad, and City of Solana Beach, which would implement Alternative 1. Specifically, under Preferred Alternative 2-R, **no material** would be placed at the **South Carlsbad South** receiver site and **less material** would be placed at the **South Carlsbad North** receiver site (158,000 cubic yards versus 220,000 cubic yards) and the Solana Beach receiver site (146,000 cubic yards versus 360,000 cubic yards). In total, up to 2.325 million cubic yards of sand would be placed at up to 10 receiver sites for RBSP II under Alternative 2-R. Table P-1 identifies maximum sand quantities that would be placed at each beach receiver site under the Preferred Alternative 2-R, in comparison to Alternative 1 and Alternative 2, as described in Chapter 4. Note that because both Alternative 1 and Alternative 2 proposed similar volumes to RBSP I at most of the receiver sites, only oneto sites under Preferred Alternative 2-R of RBSP II would actually receive more sand than RBSP I: Solana Beach and Imperial Beach. Table P-2 identifies the anticipated duration of construction at each receiver site under Preferred Alternative 2-R, which is anticipated to be slightly shorter in duration than Alternative 2. Overall, construction is anticipated to last approximately 7.58 months (230254 days versus 270 days). Because less material would be required in the Carlsbad and Solana Beach locations, less material would be necessary from the SO-5 borrow site. These data are comparable to the schedule and production information disclosed in the EA/EIR in Table 2-5.

**Table P-1
Comparison of Sand Replenishment Volumes
Proposed RBSP II Preferred Alternative (Alternative 2-R) with
Alternatives 1 and 2 Evaluated in the Draft EIR/EA**

Receiver Site	Preferred Alternative 2-R (cubic yards)	Alternative 1 (cubic yards)	Alternative 2 (cubic yards)
Oceanside	420,000	420,000	No Change
North Carlsbad	225,000	225,000	No Change
South Carlsbad North	158,000	158,000	220,000
South Carlsbad South	0	0	142,000
Batiquitos	118,000	118,000	No Change
Leucadia	117,000	117,000	No Change
Moonlight Beach	105,000	105,000	No Change
Cardiff	101,000	101,000	No Change
Solana Beach	146360,000	146,000	360,000
Del Mar	N/A	N/A	N/A
Torrey Pines	245,000	245,000	No Change
Mission Beach	N/A	N/A	N/A
Imperial Beach	650,000	120,000	650,000
Total	2,285,499,000	1,755,000	2,703,000

**Table P-2
Schedule and Production Associated with Alternative 2-R**

Borrow Site	Receiver Site	Proposed Project		
		Quantity (cy)	Replenishment Site Construction (estimated days)	Duration of Pipeline Activity (estimated days)
SO-6	Oceanside	420,000	40	63
	North Carlsbad	225,000	23	
SO-5	South Carlsbad North	158,000	15	97148
	South Carlsbad South	0	0	
	Batiquitos	118,000	12	
	Leucadia	117,000	12	
	Moonlight Beach	105,000	10	
	Cardiff	101,000	10	
	Solana Beach	146360,000	36	
	Torrey Pines	245,000	23	
MB-1	Imperial Beach	650,000	70	70
Total		2,285,499,000	23051	23051
Average Estimated Production Rate		10,000 (cy/day)		

The environmental document for RBSP I concluded no significant impacts would occur from that project. Field monitoring conducted following implementation of RBSP I confirmed long-term significant impacts did not occur. The analysis for RBSP II Alternative 2 (in Chapter 4 of this EA/Final EIR) does not anticipate any significant impacts to occur as a result of implementation of this alternative. The Preferred Alternative 2-R would be similar to RBSP I in all but onewe locations, and overall would place less sand on fewer receiver sites than Alternative 2. Implementation of Alternative 2-R would therefore not result in any new significant impacts, nor impacts that would be substantially increased beyond that disclosed for Alternative 2. For full disclosure of anticipated impacts associated with the Preferred Alternative 2-R, a brief discussion by issue area is provided below. This discussion is derived from the information in Chapters 3 and 4 of this EA/Final EIR and notes where impacts and benefits would be similar or different between Alternative 2 and the Preferred Alternative 2-R.

Geology and Soils

Section 4.1 anticipates a minor increase in the sand thickness at the nearshore bar for specific receiver sites under Alternative 2. This increase would be short term and less than significant. In addition, this section notes that sand placement onshore would not impact the littoral transport process. Because the Preferred Alternative 2-R would place less sand at fewer receiver sites than Alternative 2, a smaller increase in sand thickness would occur and less than significant impacts would also be anticipated.

Coastal Wetlands

The Preferred Alternative 2-R would place less sand at the South Carlsbad North receiver site and the Solana Beach receiver site than identified under Alternative 2 in Section 4.2, and would not place any sand at the South Carlsbad South receiver site. Lagoon sedimentation rates at Batiquitos Lagoon, located south of Carlsbad, and at San Dieguito Lagoon, located south of Solana Beach, would therefore be less under Alternative 2-R than under Alternative 2, and would be consistent with Alternative 1 volumes discussed in Section 4.2. Updated lagoon sedimentation rates for the Preferred Alternative 2-R are identified in Table P-3 below. The San Diego Association of Governments (SANDAG) has committed to providing funds to offset predicted sedimentation into individual lagoons as part of the project, as described in Appendix G. Similar to impact conclusions for Alternative 2 in Section 4.2, impacts to coastal wetlands would be less than significant with implementation of the Preferred Alternative 2-R.

**Table P-3
Potential Estimated Lagoon Shoaling and
Compensation Estimates for Alternative 2-R**

Lagoon	Estimated Sand Shoaling Volume (cubic yards)	Estimated Cost to be paid to Lagoon Management Entity ¹
Agua Hedionda	0	0
Batiquitos	25,700	\$245,800
San Elijo	10,000	\$32,600
San Dieguito	4,200 10,300	\$20,076 49,234
Los Peñasquitos	10,200	\$24,650

¹ Funding amounts have been calculated based on proposed placement volumes, which may differ than those ultimately placed. Final compensation would be based on actual volumes placed at each relevant receiver site and would be provided to the appropriate management entity upon the completion of construction.

Water Resources

Section 4.3 anticipates elevated turbidity, reduced water quality, and discoloration due to dredging under Alternative 2. Impacts would be localized, short term and less than significant. Because the Preferred Alternative 2-R would require less dredging and would place less sand at fewer receiver sites than Alternative 2, a shorter period of elevated turbidity, reduced water quality, and discoloration would occur and less than significant impacts would also be anticipated.

Biological Resources

The Preferred Alternative 2-R would place less sand at fewer receiver sites than evaluated in Section 4.4 for Alternative 2. As a result, less dredged material would be required under Alternative 2-R.

Compared to the analysis for Alternative 2 in Section 4.4, the area of direct impact to beach habitat and invertebrate resources would be decreased with implementation of the Preferred Alternative 2-R and fewer acres of beach habitat would be disturbed by construction. In addition, the duration of turbidity effects associated with dredging would also be decreased with implementation of Alternative 2-R as a result of less sand volume.

Sedimentation risk to areas with sensitive resources is also evaluated in Section 4.4. Table 4.4-3 summarizes areas subject to potential risk of sedimentation under Alternative 2. Because the Carlsbad and Solana Beach receiver sites would receive sand volumes evaluated under Alternative 1, less area would be subject to risk of sedimentation, corresponding to acreages

presented in Table 4.4-1. An updated table is provided below (Table P-4) to identify areas at risk for sedimentation associated with the Preferred Alternative 2-R. In general, the Alternative 2-R scenario would be similar to conclusions for Alternative 2 for ~~Solana Beach and~~ Imperial Beach, and similar to Alternative 1 for all other receiver sites (Section 4.4). Impacts would be less than significant. ~~As identified below, Solana Beach would have some offshore persistent reef areas that would be at risk for partial burial. Monitoring for this area would be implemented to confirm that no significant impacts occur, as described in Section 2.5.~~ No ~~other~~ monitoring would be required with this alternative, since no elevated risk of burial of persistent sensitive reef habitat is identified near ~~other~~ receiver sites compared to RBSP I, which confirmed no long-term significant impacts occurred as a result of sand placement. :

Summary of Indirect Sedimentation Impacts

Under the Preferred Alternative 2-R, there is a risk that partial sedimentation could occur to 0.1 acre of hard substrate with surfgrass at Batiquitos, with minimal areas of sedimentation at ~~Solana Beach and~~ Torrey Pines. No burial of surfgrass for extended periods of time is anticipated under Alternative 2-R. No burial or partial sedimentation of kelp beds is predicted for this alternative. There is a risk that partial sedimentation of up to 1.~~26~~ acres of reef with sensitive indicators could occur under the Preferred Alternative 2-R, and burial of up to 1.~~16~~ acres of such reef could also occur, which is less than under Alternative 2. This is a conservative estimate that could also include some reef with only nonsensitive algal turfs and crusts. This impact is considered less than significant because reefs are not expected to be overtopped by sand for extended periods of time and surfgrass is naturally adapted to shallow seasonal burial similar to predicted levels under RBSP II.

Cultural Resources

No impacts to National Register of Historic Places-eligible or California Register of Historical Resources-eligible cultural resources at the receiver sites would occur under Alternative 2, as discussed in Section 4.5. Section 4.5 discusses a monitoring program that would be implemented with Alternative 2 during dredge operations to ensure that no impacts to submerged resources occur. With implementation of the Preferred Alternative 2-R, less material would be required for placement on receiver sites and there would be less potential for discovery of submerged resources. A monitoring program would be implemented under the Preferred Alternative 2-R, as described in Section 4.5, and impacts to cultural resources would remain less than significant.

**Table P-4
Estimated Acreage of Potential Impact to Nearshore Reefs Based on
Model Predicted Increase in Sand Elevation for the Preferred Alternative 2-R**

Jurisdiction	Acres of Hard-Bottom Offshore Jurisdiction ¹	Estimated Sedimentation							Duration		
		Receiver Site	Surfgrass		Kelp Bed		Understory Algae ²			Partial Sedimentation (Reef Height Reduced to ≤1 ft) ⁴	
			Partial Burial	Seasonal Scour	Partial Burial	Seasonal Scour	Partial Burial	Seasonal Scour			
Oceanside	6.9 (Cobble, Bedrock)	Oceanside	0	0	0	0	0	0.2	0	Years 1-5	
Carlsbad	396 (Bedrock, Cobble)	North Carlsbad	0	0 ⁵	0	0	0	0	0.3 ⁵	1.2 ⁵ (U)	Year 1 (scour), Years 1-5 (height)
		South Carlsbad North	0	0	0	0	0	0	0	0.8 (0.3 S, 0.5 U)	Years 1, 4-5
		South Carlsbad South	NA	NA	NA	NA	NA	NA	NA	NA	NA
Encinitas	759 (Bedrock, Cobble)	Batiquitos	0	0.1	0	0	0	<0.1	1.3 (0.8 S, 0.5 U)	Year 1 (scour), Years 1-3 (height)	
		Leucadia	0	0	0	0	0	0	<0.1 (S, U)	Years 4-5	
		Moonlight	0	0	0	0	0	0	0	0	
		Cardiff	0	0	0	0	0	0	0	0	
Solana Beach	267 (Bedrock)	Solana Beach	0	<0.1	0	0	0.5	0.4	0.1 (U), 0.5 (0.6 S, 0.9 U)	Years 1-3 (burial), Years 1-5 (height, scour)	
City of San Diego ³	107 (Bedrock, Cobble)	Torrey Pines	0	<0.1	0	0	0	0.6	2.1 (0.1 S, 2 U)	Year 1 (scour), Years 2-4 (height)	
Imperial Beach	2,396 (Cobble)	Imperial Beach	0	0	0	0	1.1	0.1	2.5 (U)	Years 1-5	
Total			0	0.1 ⁵	0	0	1.16	1.26 ⁵	89.4 ⁵ (1.2 S, 6.89.5 U)		

¹ Acreage based on 2002 Nearshore Program Habitat Map; predominant hard-substrate type is listed first (see Table 3.2-6 in Appendix C)

² 2002 map category may include a mix of substrate with sensitive indicators and non-sensitive algal turfs and crusts; S = surfgrass, U = understory algae

³ Acreage for City of San Diego includes 1 mile up and downcoast of Torrey Pines receiver site

⁴ There is relatively greater uncertainty of potential impacts from estimated reef height reduction

⁵ Potential for greater sedimentation acreage in Year 5 after project implementation under low gross transport conditions based on preliminary model results

Land and Water Use

As described in Section 4.6, there would be temporary beach closures on portions of the receiver sites and no significant, long-term impacts would occur to surfing or other recreational activities. Temporary beach closures would be limited to active construction areas and would be immediately reopened to public access once sand placement is completed. As sand placement activities shift up or down the beach, the closure area would also shift, providing a sequentially larger open beach after each segment of the project is completed. Horizontal access along the back beach or adjacent public corridors would be maintained to either side of the active sand placement area at most of the receiver sites. To ensure public safety, some sites may require temporarily restricted horizontal access if sand placement must extend to the back beach and no alternative horizontal access exists (e.g., where a wet beach directly abuts bluffs). In these locations, existing vertical access would be maintained and closures along the back of the beach would be limited to the extent practicable during daytime hours. Because the Preferred Alternative 2-R would place less sand at fewer receiver sites than Alternative 2, beach closures would be shorter at specific receiver sites and less sand would be distributed throughout the nearshore system. As a result, less short-term change to recreational users would be anticipated, and less sand would be available for accumulation at nearshore sandbars or reefs, therefore resulting in less effects to existing surf breaks than identified under Alternative 2. Impacts would remain short term and less than significant with implementation of the Preferred Alternative 2-R.

Aesthetics

Impacts to aesthetics under Alternative 2 would be short-term views of construction due to beach replenishment activities (Section 4.7), but the result would be beach enhancement. Because the Preferred Alternative 2-R would require less dredging and place less sand at fewer receiver sites than Alternative 2, views of construction would be shorter in duration and impacts would remain short term and less than significant.

Socioeconomics

As discussed in Section 4.8, temporary impacts at the individual fishing operation level for target species may occur under Alternative 2. No impacts to areas that support giant kelp are predicted. ~~Under worst case assumptions, partial sedimentation of small areas that support giant kelp is predicted.~~ Temporary impacts to diving and sport fishing may occur as a result of localized turbidity but would be less than significant. Because the Preferred Alternative 2-R would require

less dredging and place less sand at fewer receiver sites, localized turbidity would decrease and impacts would remain less than significant.

Public Health and Safety

As discussed in Section 4.9, under both Alternative 1 and Alternative 2, active construction zones would be closed to public access and all necessary safety measures would be performed. Temporary relocation of lifeguard towers may occur but would not impair the ability of the lifeguards. Section 4.9 does not anticipate hazardous or dangerous materials to be found in the dredge materials; however, in this event, dredging and disposal activities would stop and evaluations would determine the next course of action. Impacts would be less than significant. All safety measures taken under Alternative 2 would be taken under the Preferred Alternative 2-R, and impacts would remain less than significant.

Structures and Public Utilities

As discussed in Section 4.10, sand placement at receiver beaches under Alternative 1 and Alternative 2 would stabilize public stairs and public access ramps, as well as provide additional protection to lifeguard towers. Additionally, sand placed around storm drain outlets would be designed to allow proper drainage. Sand placement under the Preferred Alternative 2-R would have similar effects to structures and public utilities as under Alternative 1 and Alternative 2, and impacts would remain less than significant.

Traffic

Section 4.11 does not anticipate impacts to traffic or parking under Alternative 2. Because the Preferred Alternative 2-R would place less sand at fewer receiver sites, this alternative would generate fewer trips and require fewer parking spaces than Alternative 2 and impacts would remain less than significant.

Air Quality

As discussed in Section 4.12, estimated project emissions under Alternative 2 would demonstrate General Conformity and conformance with the State Implementation Plan. Additionally, less than significant impacts due to dust generation are anticipated. Because the Preferred Alternative 2-R would require less dredging and place less sand at fewer receiver sites, fewer emissions due to project-related activities would occur and impacts would remain less than significant.

Noise

As discussed in Section 4.13, dredging and placement activities under Alternative 2 would generate noise and increase noise levels at receiver sites. Nighttime and weekend work would be performed under variance from local noise ordinances (where required) and residents near receiver sites would be notified prior to work. Impacts from noise would be less than significant. Because the Preferred Alternative 2-R would place less sand at fewer receiver sites, noise impacts due to project-related construction activities would be less than under Alternative 2 and impacts would remain less than significant.

Climate Change

As discussed in Section 4.14, total emissions under Alternative 2 would remain under the guidance level provided by the Council on Environmental Quality and the South Coast Air Quality Management District. The project's greenhouse gas (GHG) emissions would not have a significant impact. Because the Preferred Alternative 2-R would require less dredging and would place less sand at fewer receiver sites, GHG emissions would be less than under Alternative 2 and impacts would not be significant.

Cumulative Impacts

As discussed in Chapter 5, no significant cumulative impacts to any of the above resource areas are anticipated with the implementation of RBSP II Alternative 2. Because the Preferred Alternative 2-R would place less sand at fewer receiver sites, implementation of Alternative 2-R would not result in any significant cumulative impacts to the above resource areas.

Overall Conclusion

The Preferred Alternative 2-R would be similar to RBSP I in all but ~~onete~~ two locations, and overall would place less sand on fewer receiver sites than Alternative 2. Implementation of the Preferred Alternative 2-R would therefore not result in any new significant impacts, nor impacts that would be substantially increased beyond that disclosed for Alternative 2.

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San Diego
ASSOCIATION OF GOVERNMENTS
MEMO

May 27, 2011

TO: SANDAG Board Members, Interested Agencies, Organizations, and Individuals

FROM: SANDAG Staff

SUBJECT: Supplemental Comments on Environmental Assessment/Final Environmental Impact Report (EA/Final EIR) for the Regional Beach Sand Project (RBSP) II, SCH No. 2010051063 – Received Subsequent to Distribution of Final EIR

The RBSP II environmental document is being prepared and processed as a joint document under both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The United States Army Corps of Engineers (USACE) is serving as the lead agency under NEPA, while SANDAG is the lead agency under CEQA. As part of the CEQA process, SANDAG released the Draft EA/EIR for public review on January 26, 2011. The 45-day public comment period ended March 14, 2011. Following this public review period, clarifications were incorporated in the EA/Final EIR. All comments received to date, as well as responses, and the EA/Final EIR were made available to interested parties on May 13, 2011, in advance of the scheduled SANDAG Board hearing to consider certification of the Final EIR on May 27, 2011.

On May 24, 2011, SANDAG received two supplemental comment letters on the Draft document. Both are attached and responses provided. Generally these comments address similar topics as received and responded to in the Final EIR distributed on May 13, 2011; that is, comments on the GENESIS model, perceived impacts to reefs, perceived impacts to surfing, and input regarding post-construction monitoring. As noted in CEQA Guidelines Section 15088.5, a lead agency is required to recirculate an EIR when significant new information is added to the EIR after public review but before certification. These supplemental comments received do not meet the threshold of significant new information because:

1. No new significant impact is identified and no new mitigation measures are proposed to be implemented;
2. The severity of an environmental impact would not be substantially increased;
3. The SANDAG Board has not declined to adopt a feasible alternative or mitigation measure that is considerably different from others previously analyzed that would lessen the environmental impacts of the project; and
4. The Draft EIR is not fundamentally flawed. Meaningful public review and comment were not precluded.

Recirculation is not required when new information added to the EIR merely clarifies or amplifies an adequate EIR. The minor revisions to the body of the Final EIR and the responses to comments incorporated into the Final EIR provide clarification only. The information shared in the supplemental comments is consistent with the information provided in the Final EIR dated May 13, 2011.

STU/dda

Attachment: Supplemental comment letters

RESPONSE TO COMMENTS

Comment E29 (1/2)

Note: The following responses refer to previously completed responses to similar comments from responders that provided input as documented in the May 13, 2011 Final EIR. The referenced responses are located in Appendix I of that final document.

May 24, 2011

Response to Comment E-29

To Who It May Concern:

I have reviewed Numerical Modeling portion of the Shoreline Morphology Study for the San Diego Regional Beach Sand Project II. What follows are general comments on the reported results. I have significant experience running and evaluating these models. I have published critiques of the models in the peer reviewed, scientific literature, and testified about them as an expert in numerous courts. I am a licensed professional geologist in addition to my position as Professor of Coastal Geology.

1) It should be made very clear that GENESIS produces results that are reported without any ability to quantify or propagate the uncertainty or error involved in the input data, the internal calculations, or estimations. As a result, neither the modeler nor the end user knows how right or wrong the model results are. I have reviewed many GENESIS runs where the model has incorrectly predicted not just the magnitude of change, but the direction.

E29-1

2) The model run of GENESIS reported for this project is particularly problematic because the input data includes many items requiring estimates, smoothed shorelines, monochromatic waves, a very shallow closure depth, making the results of absolutely unknowable accuracy. Yes, this may be standard practice, but it doesn't change the fact that the results are of unknowable accuracy.

E29-2

3) Calibration is reported, but the critical verification run is mentioned, but I cannot find a detailed discussion of the shorelines change modeled during the verification run to evaluate its performance. In addition, the time period for the verification run (assuming that it was carried out) is far too short— only a year. This is inadequate model verification. Error obviously propagates with time. I find the statement suggesting that it is no big deal that GENESIS is incorrectly predicting the rate of longshore transport to be clear evidence that this particular model run has constructed a shoreline grid that is completely removed from the physical reality of the SANDAG Project. GENESIS generates shorelines changes based on changes or interruptions in the rate of longshore transport. The fact that the calibration run is producing unrealistic longshore transport rates should suggest to the modeler that serious verification over more than one time period should be attempted in order to confirm the calibration.

E29-3

4) GENESIS should not be used along any shorelines where processes and sediment supply is impacted by nearshore geology, hard ground, reef or other complications. Last year in Florida, an Administrative Law Judge rescinded a beach nourishment permit in large part because the GENESIS runs performed by the consulting engineers were performed along a shoreline with significant geologic control.

E29-4

5) Significant portions of beach nourishment projects are transported offshore during storms. None of the models used in the reviewed study can accurately

E29-5

E29-1 –All modeling has an inherent degree of uncertainty and error. The GENESIS model for RBSP II was calibrated based on actual results from RBSP I to reduce this uncertainty. As discussed in response to comment D3-19 of the Final EIR, numerical modeling is not presented as a highly accurate site-specific prediction, but rather a more generalized shoreline trend to consider for decision-making. Section 7 of Appendix G of the Final EIR (Shoreline Morphology Report, page 7-1) notes that “Model results are limited to generalized trends in shoreline position. The results should be viewed in context of the limitations of the modeling methods, and should be interpreted as general trends in the shoreline (such as erosion or accretion) rather than as absolute quantities of changes.” GENESIS was implemented for RBSP I and the predicted trends were confirmed by monitoring results from RBSP I. Although other model approaches were initially considered for RBSP II, GENESIS was chosen due to its acceptability to the regulatory agencies scrutinizing the project, its ability to reasonably model long and variable coastal reaches with multiple fills in proximity to one another, and its credibility in modeling RBSP I and other regionally-significant projects in Southern California.

E29-2 –GENESIS was calibrated for use for RBSP II based on actual results from RBSP I and historic data, to the extent possible, including actual wave data. As discussed in response to comment D3-26 of the Final EIR, GENESIS analysis was based on accurate bathymetry and wave data, and calibrated accordingly. The results are considered of “knowable” accuracy because:

- A. The model reasonably predicted results of RBSP I;
- B. A similar, but improved, modeling approach was used for RBSP II;
- C. The model was calibrated and verified to monitoring data of RBSP I, and relied on high quality recent data of shorelines, bathymetry, and waves; and
- D. The RBSP II project is very similar to RBSP I.

As discussed in response to comment D3-19 of the Final EIR, GENESIS, like all models, relies on simplifying assumptions to make more generalized estimates of complicated processes. The model has been extensively used by the USACE for

about 25 years and successful applications have been made recently in Southern California at Orange County (Bolsa Chica on numerous efforts), Santa Barbara County (Goleta Beach Stabilization, and Santa Barbara Harbor Sand Bypassing), and San Diego County (RBSP I, Oceanside Feasibility Study, and Encinitas/Solana Beach Feasibility Study).

E29-3 – GENESIS was calibrated and verified using the most recent, state of the art LiDAR survey data and measured wave data available. There was a substantial amount of shoreline survey and wave data available for incorporation. One year for model verification represents an adequate time for model verification as it is within the 5 year model run window. See response to comments D3-21 regarding the physical reality as the basis of the modeling and D3-22 regarding the longshore sediment transport rate. GENESIS was calibrated and verified to shoreline positions rather than longshore sediment transport rate, because the desired result is accurately predicted shorelines and sufficient shoreline data were available for such calibration and verification. The estimated longshore sediment transport rate from the literature was not critical to either the calibration or verification because it is the gradient in longshore sediment transport which drives shoreline change rather than the magnitude.

E29-4 – GENESIS is a generalized model that covers long reaches of shoreline. The shoreline in the study area is predominantly sandy beach which GENESIS is designed to model. While GENESIS will not directly model effects of a hard feature, those characteristics compose a small proportion of the existing shoreline. GENESIS is being used to evolve the mean sea level shoreline and that position is typically well inshore of those few areas of hard ground and reef. Therefore, GENESIS is appropriate to model the study area.

E29-5 – GENESIS model results were supplemented with analysis of seasonal beach profile changes (profile analysis) in order to predict depth of sand cover attributable to the project over the profiles. This supplemental analysis effectively provides project-specific cross-shore sand movement predictions, as described in more detail in the EIR/EA. Both the EIR/EA and Appendix G present information on extensive analyses of beach profile evolution for the project.

As discussed in Appendix G of the EIR (Shoreline Morphology Report), GENESIS used measured wave data from a local gage and this data included waves during storm events. Historical profile data were used to estimate offshore/onshore sand transport over the long-term. In addition, the historical profile data included periods of relatively low wave activity and periods of relatively high wave activity (e.g., 2007/2008 El Nino) so the effects of seasonal offshore/onshore sediment transport during storm events was included via the use of this data. Although RBSP II is similar to RBSP I, it was not assumed that the fate of this project (RBSP II) will be the same as the fate of RBSP I, which is why an updated analysis methodology was developed and utilized for RBSP II.

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predict the spatial distribution of that sand when it is transported offshore. In addition, one cannot assume that the fate of this project will be identical to the fate of the last project. This is largely dependent on storm frequency, size, direction, and other aspects of naturally occurring variability in the regional wave climate.

E29-5
cont'd

6) The modeling performed for the SANDAG Project provides no actionable guidance for approving the project, nor for understanding its durability and impacts. That does not mean that I am arguing against the project. That is not the purpose of this letter. I would, however, suggest that for future projects less money be spent on meaningless modeling, and more money should be spent on monitoring actual project outcomes, sediment transport directions, and nearshore impacts to be used as a guide for the engineering of future projects.

E29-6

Sincerely:

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E29-6 –SANDAG understands that your comments do not indicate opposition to the project; however, SANDAG cannot make a decision to approve and implement a project based on determining impacts only after implementation. Modeling performed for RBSP II, like the modeling performed for RBSP I, is necessary to provide disclosure of potential impacts to the public and decision-makers consistent with the guidelines and intent of CEQA (CEQA Statute Section 21002.1). The conclusions made in the RBSP II EIR are based on shoreline model and profile analysis results calibrated with actual monitoring data from RBSP I. As noted in Section 2.5 of the Final EIR, post-construction monitoring of beach conditions would be performed as part of RBSP II. This would be a continuation of the regional shoreline monitoring that has occurred for over 15 years, with additional profiles to collect project-specific data. This beach profile monitoring data would be provided to SANDAG decision-makers and the public. It would be available for further refinement of the shoreline model and profile analysis, if appropriate, for any subsequent project.

From: sdcampaigncoordinator@gmail.com [mailto:sdcampaigncoordinator@gmail.com] **On Behalf Of**
 Julia Chunn
Sent: Tuesday, May 24, 2011 2:16 PM
To: jimjanney@oappkg.com
Subject: Surfrider Concerns CERTIFICATION OF FINAL ENVIRONMENTAL IMPACT REPORT FOR REGIONAL BEACH SAND PROJECT II

Dear Honorable Mr. Janney,

I am writing to express our concerns with agenda item 13 CERTIFICATION OF FINAL ENVIRONMENTAL IMPACT REPORT FOR REGIONAL BEACH SAND PROJECT II that you will vote on at the Friday May 27th SANDAG meeting. Our chapter has commented on the DEIR and in scoping meetings as well as at the presentation to the Solana Beach City Council on January 26, 2011.

At this point, we feel the EIR is incomplete and are recommending that the EIR be modified before it is certified. We want the revised EIR to properly account for cross-shelf sand transport and include monitoring for impacts on surf breaks as well as sensitive habitat. Fish and Game and other commenting agencies and groups have also expressed concern over the impacts on reefs.

Our analysis of the project uncovered that the computer modeling used to predict the movement of the sand once it is placed, failed to include the physics of cross-shelf transport, which is ultimately the main driver of sand loss on the beach. As sand is removed from the beach, it may cover offshore reefs, which would be a problem for coastal species, and may change how the surf breaks at beaches and reefs. Our chapter has called for more comprehensive monitoring, which would monitor the effects at nearby reefs and surf spots.

Some Specific Points you should address with Staff during their presentation:

* SANDAG has chosen a modified version of Alternative 2, which would place a large amount of sand shoreward of offshore reefs in Solana Beach. The added sand volume requires more a rigorous analysis and monitoring program.

E30-1

* The EIR mentions that the project will have no negative impact on offshore reefs, but fails to provide evidence. Additionally, there is no monitoring program to prove or disprove this claim.

E30-2

E30-1 – As detailed in Appendices C (Biological Resources Report) and G (Shoreline Morphology Report) and summarized in the EIR, a rigorous analysis was performed to estimate the volume and location of project sand that could be added to the system overtime offshore of Solana Beach. Depending upon the alternative, the volume of sand placed at this receiver site would vary. For the sand volume of 146,000 cubic yards (Alternative 1 in the Draft EIR and the same volume as RBSP I), the EIR analysis and results of previous monitoring indicates no long-term, significant impacts to offshore reefs (Section 4.4). Therefore no post-construction monitoring would occur for near-shore habitat. For the larger volume of 360,000 cubic yards (Alternative 2 in the Draft EIR), the rigorous analysis indicated no long-term significant impacts, but noted some sedimentation risk. Consistent with the approach utilized for RBSP I when initially implemented, a long-term monitoring program would be implemented with this larger volume to confirm no long-term, significant impacts would occur to sensitive biological resources. Please see response to comment D3-8.

E30-2 – As detailed in Appendix C (Biological Resources Report) and summarized in Section 4.4 of the EIR, a habitat impact analysis was provided to disclose potential impacts to offshore reefs. The habitat impact analysis was based on modeling conducted for the project. No long-term, significant impacts to offshore reefs were identified, but areas of risk for sedimentation levels that could affect reef function were identified. As described in Section 2.5 of the EIR, a monitoring program would be implemented at Solana Beach if Alternative 2 volumes were placed (360,000) to confirm the long-term conclusion. In addition, a physical monitoring program similar to RBSP I would be implemented for RBSP II. Please see response to comment D3-28 for information regarding the impact analysis, which included shoreline modeling, profile analysis, and habitat impact assessment.

Comment E30 (2/2)

* SANDAG claims that the addition of sand in RBSP I actually helped improve surf breaks. This is based on anecdotal evidence, and a real surf break monitoring program is needed. The chapter provided details of a scientific based approach for surf break monitoring in our comments submitted within the deadline. This monitoring program was used by Surfrider to monitor impacts on Pratte's Reef and was one of the factors in removing the reef in El Segundo.

E30-3

* Motivation for this project is based on the reported success of RBSP I, which placed a similar amount of sand at similar locations. However, RBSP I had a very comprehensive monitoring program which was able to provide planners with evidence of successes and failures, including reasons why the beach fill at Torrey Pines had eroded so rapidly. None of the modeling used in the RBSP II design likely would predict this sand loss or the loss of sand that occurred off Solana Beach.

E30-4

E30-3 – Modeling, together with observations made during and subsequent to monitoring of RBSP I, are sufficient data to determine the likely coverage of sand on beaches, surf breaks, and reefs. The degree of sedimentation near surf breaks is predicted to be localized, temporary, and less than significant, as described in Section 4.6. Because no significant surfing impacts have been identified, monitoring of surfing is not required. Clarification regarding effects to both beach and reef breaks have been added to Section 4.6 of the Final EIR. Please see response to comment D3-30.

E30-4 – As described in Section 2.5 of the EIR, a physical monitoring program (transects) is proposed for RBSP II, nearly identical to that performed after RBSP I. That program includes approximately 60 transects along the northern San Diego coastline. Transect data will be collected twice annually and available to the public every year. This will allow SANDAG and the public to address project performance over time. It can also be used to confirm some model predictions.

I will be attending the SANDAG meeting on Friday to provide comment. Please let me know if we can provide any additional information.

Regards,

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Julia Chunn-Heer
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