



401 B Street, Suite 800
 San Diego, CA 92101-4231
 (619) 699-1900
 Fax (619) 699-1905
 www.sandag.org

MEETING NOTICE AND AGENDA

MEMBER AGENCIES

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 Mexico

SHORELINE PRESERVATION WORKING GROUP

The Shoreline Preservation Working Group may take action on any item appearing on this agenda.

Thursday, April 1, 2010

11:30 a.m. to 1 p.m.

SANDAG, 7th Floor Conference Room
 401 B Street, Suite 800
 San Diego, CA 92101-4231

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

Guiding Principles:

- commitment to unified approach for local decisions on sand replenishment;
- address local needs and maximize positive regional impacts;
- encourage cooperation and coordination;
- contribute equitable fair share from local participants; and
- promote opportunities for beach sand replenishment

AGENDA HIGHLIGHT

• **REGIONAL BEACH SAND PROJECT II**

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SHORELINE PRESERVATION WORKING GROUP

Thursday, April 1, 2010

ITEM #	RECOMMENDATION
1. WELCOME AND INTRODUCTIONS	
2. PUBLIC COMMENTS/COMMUNICATIONS	COMMENTS
Members of the public will have the opportunity to address the Shoreline Preservation Working Group (SPWG) during this time.	
+3. SUMMARY OF THE FEBRUARY 4, 2010, MEETING	APPROVE
The SPWG is asked to approve the February 4, 2010, meeting summary attached for working group review.	
+4. ADDITION OF SHORELINE PRESERVATION WORKING GROUP ADVISORY MEMBER	RECOMMEND
As seen in the attached charter for the SPWG, the working group is made up of voting members and advisory members. Marco Gonzalez, Coastal Environmental Rights Foundation (CERF), is requesting that CERF be included as an advisory member of the working group.	
+5. REGIONAL BEACH SAND PROJECT II (RBSP II)	INFORMATION
a. SANDAG staff will present the working group with an overview of the RBSP II budget. b. SANDAG staff will provide an update on the funding match for RBSP II Phase II, which includes funds for the monitoring program, planning contingency, and construction management. The discussion will include a review of the draft revised memorandum of agreement. c. The consultant team will provide the working group with an update on the status of RBSP II planning efforts, including a review of the Project Description and Alternatives for the environmental document.	
6. LEGISLATIVE UPDATE	INFORMATION
Steve Aceti from California Coastal Coalition (CalCoast) will discuss the status of state and federal legislation related to the shoreline management program.	
7. ADJOURNMENT AND NEXT MEETING	INFORMATION
The next regularly scheduled working group meeting is Thursday, June 3, 2010, from 11:30 a.m. to 1 p.m.	

+ next to an item indicates an attachment

San Diego Association of Governments
SHORELINE PRESERVATION WORKING GROUP

April 1, 2010

AGENDA ITEM NO.: **3**

Action Requested: APPROVE

SUMMARY OF THE FEBRUARY 4, 2010, MEETING

File Number 3200200

Members in Attendance:

Pam Slater-Price, County of San Diego, Chair
Joe Kellejian, City of Solana Beach, Vice Chair
James Bond, City of Encinitas
Mark Filanc, City of Del Mar
Jim Janney, City of Imperial Beach
Ann Kulchin, City of Carlsbad
Eileen Maher, San Diego Unified Port District
Mitch Perdue, U.S. Navy
Esther Sanchez, City of Oceanside

Advisory Members in Attendance:

Steve Aceti, California Coastal Coalition (CalCoast)
Marco Gonzalez, Coastal Environmental Rights Foundation
August Felando, California Lobster and Trap Fishermen's Association (CLTFA)
Robert Hoffman, National Marine Fisheries Service
Julie Thomas, Scripps Institution of Oceanography

Staff Subgroup:

Steven Jantz, City of Carlsbad
Don Hadley, City of Oceanside
Y. Sachiko Kohatsu, County of San Diego
Greg Wade, City of Imperial Beach
Kathy Weldon, City of Encinitas

Others in Attendance:

Bud Carroll
Bob Crane, Seacoast Preservation Association
Amanda Dillon, Scripps Institution of Oceanography
Teri Fenner, AECOM
Kristen Goodrich, Tijuana River National Estuarine Research Reserve
Karen Green, SAIC
Darryl Hatheway, AECOM
Lawrence Honma, Merkel & Associates
Cindy Kinkade, AECOM
Anne-Lise Lindquist, Moffatt & Nichol

Natalie Rodenck, Hofman Planning
Danny Schrotberger, City of San Diego
Barry Snyder, AMEC
Richard Stolpe, TEC Inc.
Chris Webb, Moffatt & Nichol

SANDAG Staff in Attendance:

Keith Greer, SANDAG
Kim Roeland, SANDAG
Shelby Tucker, SANDAG

1. Welcome and Introductions

Chair Pam Slater-Price, County of San Diego, called the meeting to order at 11:39 a.m. and welcomed the group. Shelby Tucker, SANDAG, announced that Marco Gonzalez was representing CERF rather than The Surfrider Foundation (Surfrider).

2. Public Comment/Communications

Joe Kellejian, City of Solana Beach, announced that the cities of Solana Beach and Encinitas just got approval to move forward with a sea level rise study in the two cities; he mentioned that it would be the first area in the United States (U.S.) to do an in-depth study on this topic with the Army Corps of Engineers (ACOE).

3. Summary of the December 3, 2009, Meeting

After making no corrections, the December 3, 2009, meeting summary was unanimously approved following a motion from Ann Kulchin, City of Carlsbad, and a second from Mr. Kellejian.

4. Coastal Training for Decision Makers

Kristen Goodrich, Tijuana River National Estuarine Research Reserve (TRNERR), described a "Planning for Climate Change" training program to be held in partnership with the San Diego Foundation and Local Governments for Sustainability. She mentioned that as the new coastal training coordinator she wanted to start by getting a sense of the needs of coastal decision makers in San Diego. This would be accomplished by conducting a needs assessment using a survey tool in April. She also explained how the training fits with one of the strategies of the California Climate Adaptation Strategy. The training program will be based on a template developed for the National Estuarine Research Reserve System and modified for the San Diego region. She announced that the training will be held sometime in April with more information available as the planning for the program continues.

Chair Slater-Price asked where the meeting will be held; Ms. Goodrich responded that it will be held at the TRNERR Training Center in Imperial Beach. Mark Filanc, City of Del Mar, inquired about how the training date and other information would be relayed. Ms. Goodrich answered that she would send information to Ms. Tucker who will then distribute to the working group.

James Bond, City of Encinitas, asked about the figure used for estimating 2050 sea level rise noting that there have been many estimates released. Ms. Goodrich said that 15–18 inches were used. Steve Aceti, CalCoast, added that at recent meetings with the Coastal Commission and other agencies, sea level rise has been a major topic. He described several different agencies (e.g., ACOE) and the studies and guidance documents related to each; this uncoordinated effort to provide guidance has created a challenge for coastal cities that have been asked to update their Local Coastal Programs for sea level rise analysis. Mr. Kellejian added that the Coastal Commission is going to work with all the state resource agencies interested in sea level rise. He also mentioned that the Coastal Commission is going to make site-specific recommendations, taking into account that sea level rise for Solana Beach might be much different than that for Del Mar, for example. Chair Slater-Price summarized that there are many figures for sea level rise available, and it would be beneficial to whittle it down to a figure on which everyone can rely. Mr. Aceti added that the Solana Beach Feasibility Study on sea level rise mentioned earlier by Mr. Kellejian was the first of its kind and that many agencies will be looking at this study to guide development of their own projects.

5. Update on Quality of Life Funding Strategy

Midori Wong, SANDAG, provided an update on the Quality of Life Funding Strategy. Ms. Wong began by describing the Quality of Life Funding Strategy's early planning phase, starting with the Regional Comprehensive Plan adopted by the SANDAG Board of Directors in 2004 that identified four areas that did not have a long-term funding mechanism. These four areas (habitat conservation, shoreline preservation, water quality and enhancement, and public transportation operations) have become the focus of the Quality of Life Funding Strategy. She also described the *TransNet* Extension Ordinance, which gives a deadline of 2012 to act on additional regional ballot measures to meet long-term guidelines for habitat conservation.

Additionally, Ms. Wong described the structure of the Quality of Life Ad Hoc Steering Committee, as well as a partnership with the County of San Diego for water quality, public involvement and education programs, an independent public opinion poll conducted by The Nature Conservancy, and finally, stakeholder interviews conducted by a contractor, Katz and Associates. She also described the Quality of Life Stakeholder Working Group, which includes members of existing working groups such as SANDAG's Environmental Mitigation Program, the SPWG, and the County of San Diego's Water Quality Enhancement Working Group, among many other stakeholders.

Mr. Bond asked if the poll Ms. Wong mentioned was the one that ranked shoreline preservation last in funding priorities. Ms. Wong answered by describing both the polling conducted by The Nature Conservancy and the stakeholder interviews conducted by Katz and Associates. Mr. Bond related his concern over the low ranking of shoreline preservation. To show the ongoing need for replenishment, Mr. Aceti described the conditions of some of the beaches in the northern coastal cities, specifically relating some examples of the heavy erosion that occurred after recent storms. Julie Thomas, Scripps Institution of Oceanography, announced that flights were done providing photos of the shoreline from the border to Dana Point. Funding from SANDAG has allowed for a Light Detection and Ranging (LIDAR) flight on February 15, along with support from the ACOE district in Los Angeles and the Department of Boating and Waterways (DBW). Ms. Thomas also added that the wave height experienced during the January storm event had been measured before, but not sustained over several days, as was the case in January. Mr. Gonzalez asked when

the information would be published. Ms. Thomas responded that she will e-mail Ms. Tucker once the pictures have been posted. Ms. Tucker also added that there are additional photos from SANDAG's beach monitoring program. Chair Slater-Price suggested scheduling a press conference once a package has been put together with all the available resources. Ms. Thomas agreed, and Ms. Tucker suggested posting photos on the SANDAG Web site, as well.

Mr. Filanc asked about how to inform the public about the conditions of the beaches. Ms. Thomas said she would be in Washington, D.C., for meetings with all of the representatives from the State of California, and she hopes to highlight the importance of shoreline preservation using photographs from the most recent storm. Mr. Filanc pointed out that support from the entire county, not just from the coastal cities, is important for beach projects. He then suggested a presentation to the SANDAG Board of Directors showing photographs of the conditions of the beaches to encourage support from the noncoastal cities. Mr. Gonzalez added that the SPWG needs to be ready to describe the arguments against putting money into restoring beaches when storms just deplete the beach again. He used an analogy to describe how to respond to such an argument, stating that potholes are fixed in roads even though future damage from weather is unavoidable. He finished by stressing the importance of a consistent message.

Mr. Kellejian asked about the condition of South Oceanside. Don Hadley, City of Oceanside staff, answered that South Oceanside is faring the same as the other coastal cities with some areas protected only from armored rip-rap. He added that some amenities have been impacted such as restrooms and playground equipment.

6. RBSP II Update

Chris Webb, Moffatt and Nichol, provided an update on Phase II of the RBSP II, focusing on a summary of stakeholder meetings, continuing technical analyses, and beginning to optimize a monitoring plan. In December, SANDAG and the consultant team met with six stakeholder groups. Mr. Webb summarized some common issues expressed at the stakeholder meetings, including surfing, environmental impacts to habitat, accurate disclosure of environmental issues, costs and benefits of the project to the cities, public involvement, and studies to understand the physical properties and impacts of the borrow and fill sites. Mr. Webb stated that the technical analyses have been initiated on the alternatives that seem likely to move forward, adding that descriptions of the alternatives will be provided before the next SPWG meeting. He finished by describing the next steps: work on the monitoring plan, hold scoping meeting for the environmental document, and initiate preparation of the environmental document with the first internal draft available by August 2010, the public review draft available in early 2011, and final environmental document completed by mid-2011. This will allow time for permits to be secured for construction starting in spring 2012.

Mr. Kellejian asked about the window of opportunity for the spring 2012 construction. Mr. Webb stated that the window of opportunity (March 15–September 15) is based on weather, aiming to maximize relatively calm ocean conditions.

Mr. Bond asked about any changes to the lobster fishery since the RBSP I. August Felando, California Lobster and Trap Fishermen's Association, answered that he has not heard of any severe complaints since the RBSP I. He restated the concerns that his group had on RBSP I: provide

adequate monitoring program to ensure there is no effect on the reproductive cycle of the invertebrates (e.g., lobster) and that the reefs are not filled as a result of the dredging or filling activities. Mr. Felando also added that many of the lobster fishermen also were sea urchin fishermen, and there is concern over protection of the kelp areas that are important for the sea urchin.

Mr. Bond asked about any measured temperature changes in the ocean, which, in the past, have negatively impacted the kelp forest. Mr. Gonzalez stated that the move of Kelco out of the region inhibited the ability to relate changes in the kelp forest to temperature changes in the water. Ms. Thomas added that there has been a definite sea surface temperature rise in the ocean. Mitch Perdue, U.S. Navy, offered details on the loss of 75–80 percent of kelp canopy along the North County coast. Mr. Perdue explained that the kelp holdfasts and stipes were still intact, but the growth was inhibited by a temperature ceiling 3.5 meters below the surface; because of this, cosmetically and on aerial photography it looked like a significant loss, but in fact, the densities remained intact.

Ms. Tucker concluded that SANDAG will continue to outreach to the commercial fishing groups, among others, and to consider branding and public outreach for the RBSP II. She also mentioned that the support SANDAG provided to Scripps Institution of Oceanography for the LIDAR fly-over would provide valuable data for monitoring for the RBSP II; Ms. Thomas added that the LIDAR data will be invaluable for sea level rise studies.

Karen Green, Science Applications International Corporation, introduced herself as the lead biologist for the RBSP II and presented the work she has done on studying the environmental and biological impacts of both the dredge sites and the project footprints. She indicated that beach surveys have been used to evaluate the quality of beach habitat for sensitive birds and fish species. Near shore surveys were similarly conducted to evaluate the quality of reef habitats, providing information such as reef height and amount of sedimentation. Ms. Green described surveys done on the borrow sites used for the 2001 RBSP I and presented some evidence for recovery of those sites, including similar sediment characteristics and similar fish assemblages to sites that were not dredged.

Mr. Bond asked for clarification that the benthic communities have recovered in the borrow sites from RBSP I; Ms. Green confirmed that to be so, pending completion of the analysis of infaunal invertebrates. Mr. Perdue asked if the monitoring would incorporate data generated from previous monitoring efforts. Ms. Green confirmed that the consultant team collectively incorporated lessons learned from the first project for developing monitoring for RBSP II. Mr. Felando asked if she was able to compare the distribution of surfgrass from 2001 to present. Ms. Green answered that a comparison can be done quantitatively, not qualitatively, because of different methods of monitoring surfgrass in previous studies. Ms. Tucker announced that the monitoring plan will be presented in the April meeting to allow for members and others to be able to comment.

Ms. Tucker reminded everyone that at the last meeting the SPWG discussed amending the memorandum of understandings (MOUs) with participating coastal cities to provide Phase II funding. The deadline for the updated MOUs is the end of June. Ms. Tucker hoped that by the April SPWG meeting, the coastal cities will have decided whether or not they want to provide funding and move forward with the project.

Ms. Tucker then mentioned some media attention recently given to the City of Oceanside. Ms. Tucker also spoke of a possible reduction of money for the RBSP II from the state and expressed her concern over what that will do to the project. Chair Slater-Price reminded everyone that the RBSP II is not SANDAG's project, it is the coastal cities' project; SANDAG acts as facilitator. Ms. Tucker added that SANDAG is working with the City of San Diego to release some ACOE money to serve as matching funds and mentioned a possibility of that happening also in Oceanside. Esther Sanchez, City of Oceanside, provided some context for the statement that was printed in the North County Times in January; she described comments she had made relating to beach replenishment at a city council meeting where tourism, the hotel district, and the Transient Occupancy Tax were discussed. Ms. Sanchez also added that budgets are difficult for every city right now and that she hopes to continue the dialogue between the City of Oceanside and SANDAG.

Mr. Aceti spoke in more detail about the funding issue at the state that Ms. Tucker had previously mentioned. Late last year, Mr. Aceti learned that the DBW has had a difficult time getting budget requests approved because of criticism from recreational boaters on spending money from the Harbors and Watercraft Revolving Fund on beach projects. He then described some shifting of positions within the DBW. Mr. Aceti explained that because of the possibility of some cities dropping out of SANDAG's beach project, it was surmised that the cost of the project would go down. Therefore, while other sources of funding are being explored, it was suggested to cut \$750,000 from SANDAG's beach project funding in order to provide matching funds for ACOE studies in Encinitas/Solana Beach, Carpentaria, and San Clemente. Mr. Aceti listed two assumptions: (1) the project is going to come in on budget and (2) that if some cities drop out of the project, it will make the project less expensive. Both assumptions, he argued, may not be correct. Mr. Aceti suggested writing a letter from the chair of the SPWG and/or from Gary Gallegos, Executive Director of SANDAG, to the DBW expressing gratitude for having funds received thus far and for funds forth coming in Fiscal Year (FY) 2011. Ms. Tucker added that, to date, the consulting team has stayed on budget; the big "unknown" is the construction component. This, along with the increased cost due to escalation over the time when the project estimate was created (2006) and the present, makes any cuts in funding a major issue for the project. She expressed her frustration over hearing of the possible cut from SANDAG's RBSP II funding third-hand and said it was problematic for it to be considered without including SANDAG in the conversation. Ms. Sanchez finished with a final comment about the importance of beach sand in the City of Oceanside and that efforts are being made to work through the funding issues.

7. Legislative Update

Mr. Aceti described a bill that he is working on with Jerry Schubel, Aquarium of the Pacific, which provides funding for cities and counties to address sea level rise and calls on the state to collaborate between the different agencies and make guidelines for sea level rise consistent. He also wanted to announce that March 4, 2010, is "Casino Night for the Coast" at Tuscany Restaurant in La Costa. At this event, Councilmember Donna Frye (City of San Diego), Mr. Kellejian, Chair Slater-Price, Ms. Kulchin, and Bruce Resnick (Executive Director of San Diego Coastkeeper) will be honored. Additionally, Ocean Day is April 6, 2010, and Mr. Aceti invited anyone to join him in lobbying for the oceans in Sacramento. Finally, Mr. Aceti announced that the next Headwaters to Oceans Conference will be May 10-13, 2010, at the Long Beach Hilton. Chair Slater-Price announced that the State of the County Address will be held at 6 p.m. on February 10, 2010, at the Irwin M. Jacobs Qualcomm Hall.

8. Adjournment and Next Meeting

Chair Slater-Price adjourned the meeting at 12:57 p.m. The next meeting will be held on April 1, 2010.

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

San Diego Association of Governments
SHORELINE PRESERVATION WORKING GROUP

April 1, 2010

AGENDA ITEM NO.: **4**

Action Requested: RECOMMEND

ADDITION OF SHORELINE PRESERVATION WORKING GROUP
ADVISORY MEMBER

File Number 3200200

Introduction

As seen in the attached charter for the SPWG, the working group is made up of voting members and advisory members. Marco Gonzalez, Coastal Environmental Rights Foundation (CERF), is requesting that CERF be included as an advisory member of the working group.

Recommendation

SANDAG staff is requesting that the working group recommend to the Regional Planning Committee that CERF be added to the working group as an advisory member.

Background

CERF is a nonprofit environmental organization founded by surfers at Coast Law Group LLP in North San Diego County and active throughout California's coastal communities. CERF was established to aggressively advocate, including through litigation, for the protection and enhancement of coastal natural resources and the quality of life for coastal residents.

CERF's primary areas of advocacy include:

- Water Quality Protection and Enhancement (Stormwater Management and Sewage Conveyance/Treatment)
- Wastewater Recycling (Indirect Potable Reuse)
- Mass Transit
- Waste to Energy
- Coastal Development
- Beach Nourishment
- Marine Debris
- Marine Reserves

Additionally, CERF would be represented by Mr. Gonzalez. Mr. Gonzalez has been an advisory member of the working group for many years as a representative of Surfrider. He has been a valuable member of the working group providing information and insight based upon his years of experience as a surfer and environmental advocate. Mr. Gonzalez no longer represents Surfrider, but Surfrider will continue to be an advisory member represented by Mark Rauscher.

Attachment: 1. Shoreline Preservation Working Group Charter

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



Shoreline Preservation Working Group Charter

Purpose

The Shoreline Preservation Working Group (Working Group) was formed in the 1980s and currently provides input to the Regional Planning Committee on issues related to the implementation of the Shoreline Preservation Strategy (Strategy) adopted by SANDAG in 1993. The Strategy proposes an extensive beach building and maintenance program for the critical shoreline erosion areas in the region, including specific recommendations on financing and implementation. Members of the Working Group have technical expertise and background knowledge of regional shoreline issues, which are useful in applying the principles and goals laid out in the Strategy and the SANDAG Regional Comprehensive Plan (adopted in 2004). Continuing to support the region's ongoing and future beach nourishment efforts is a top priority for the Working Group. Additionally, in 1996, SANDAG enacted a shoreline monitoring program and the Working Group continues to provide recommendations regarding implementation of this program.

Guiding Principles

- Commitment to unified approach for local decisions on sand replenishment;
- Address local needs and maximize positive regional impacts;
- Encourage cooperation and coordination;
- Contribute equitable fair share from local participants; and
- Promote opportunities for beach sand replenishment.

Line of Reporting

The Shoreline Preservation Working Group, established by the Board of Directors, reports to the Regional Planning Committee (RPC) on issues relating to the implementation of the Shoreline Preservation Strategy and the Regional Comprehensive Plan. Based on the Working Group's input, the RPC makes policy recommendations to the SANDAG Board of Directors. Regular updates on Working Group activities should be made to the Regional Planning Committee to update them on current programs and projects and further strengthen the connection between the two groups.

Responsibilities

The Shoreline Preservation Working Group's main responsibilities are to make recommendations to the RPC on issues related to the implementation of the adopted Shoreline Preservation Strategy and Regional Comprehensive Plan, focusing on future beach nourishment opportunities and the shoreline monitoring program.

Membership

The Shoreline Preservation Working Group has 11 voting members, who are elected officials from the nine coastal cities in the San Diego region, and representatives from the San Diego Unified Port District and the U.S. Navy. Additionally, the Working Group has several advisory members, who are representatives from community groups and organizations, environmental groups, state and federal agencies, tribes, and other interested stakeholders. Voting members of the Working Group and their alternates are selected by the bodies they represent. Non-voting members of the Working Group also are selected by the bodies they represent and are categorized as either Technical or Community Advisors, who provide added knowledge and input to the Working Group. In the event



Shoreline Preservation Working Group Charter

of a lack of participation by a member of the Working Group or the group/agency the member represents, the Regional Planning Committee may approve allowing the Working Group to modify the membership roster in order to achieve a quorum and full participation.

Meeting Time and Location

The Shoreline Preservation Working Group meetings are held at 11:30 a.m. on the first Thursday of every other month. Meetings are normally held in the 7th floor conference room at the SANDAG offices.

Selection of the Chair

The Chair of the Shoreline Preservation Working Group shall be appointed by the Chair of the SANDAG Board of Directors in February of each year, or as vacancies occur. The Working Group Chair can be a primary or alternate member of the Board, but must be a primary member of the Regional Planning Committee to which the Working Group reports. The appointments shall go into effect immediately unless otherwise directed by the Board Chair.

Selection of the Shoreline Preservation Working Group's Vice Chair is done at the first meeting subsequent to the appointment of the Working Group Chair. This process begins with recommendations made by Working Group members to select one of its primary voting members as the Vice Chair. The final decision is then made based on a vote of the Group's voting members.

Duration of Existence

The Shoreline Preservation Working Group is currently a standing working group that reports to the Regional Planning Committee. An evaluation of the group's work is conducted on an annual basis as part of the SANDAG Executive Committee annual review of all SANDAG committees and working groups.

SHORELINE PRESERVATION WORKING GROUP

April 1, 2010

AGENDA ITEM NO.: **5a**

Action Requested: INFORMATION

REGIONAL BEACH SAND PROJECT II (RBSP II)

File Number 3200200

Introduction

In August 2007, SANDAG submitted a funding proposal to the DBW for the planning and construction of a beach nourishment project. The cost estimate for the RBSP II was escalated to 2008 dollars. Project costs have increased since the preparation of the original estimate. The revised budget is included as Attachment 1.

Background

The estimate presented to the DBW in 2007 was based upon the costs of the 2001 RBSP, escalated to 2008 dollars. It was assumed that the RBSP II would be substantially the same as RBSP I, and therefore, the cost estimate would be an accurate gauge of actual RBSP II costs. A cost estimate was prepared as part of the preliminary planning for RBSP II. The scope required the consultant team to prepare the probable construction costs for each of the likely project alternatives. Using this revised estimate, the attached cost comparison was created.

The left side of the attached shows the costs from the estimate presented to the DBW based on the 2001 RBSP, totaling \$22,683,918. The right side shows the revised estimate for RBSP II, totaling ~~\$26,747,024~~. Revenues received or anticipated total ~~\$22,342,625~~. The current funding short fall is ~~\$4,404,399~~. This difference occurs because costs have increased since the original estimate was created due to the cost per unit of sand being higher than the previous project. The unit costs are affected by the location of the borrow sites. The 2001 RBSP relied heavily on a borrow site off Batiquitos Lagoon that supplied most of North County. Initial assumptions were that offshore borrow areas off Batiquitos Lagoon and off Oceanside would be available. The preliminary engineering offshore investigation results showed those sources to not be available, but rather that high-quality sand exists off Cardiff and Del Mar. Therefore, sand is to be supplied from off Cardiff and Del Mar, which are farther from the receiver sites from Moonlight Beach to Oceanside being used for RBSP II. The receiver sites also are listed on the attached.

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These numbers are an estimate and the RBSP II project scope will need to be amended to match revenues. The RBSP II planning tasks are currently on budget, therefore, changes to the scope of the project can be made during final engineering and also once construction bids have been received and costs confirmed.

Attachment: 1. RBSP II Revised Cost Comparison

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

ITEM NO.	ITEM DESCRIPTION	Assumed Borrow Site RBSP I	RBSP I Final QT. in CY	UNIT COST	TOTAL	Assumed Borrow Site RBSP II	RBSP II Proposed QT in CY	UNIT COST	TOTAL
Planning Costs									
1	Investigation of Offshore Sand Sources				\$300,000				Completed
2	Preliminary Design				\$200,000				Completed
3	Environmental Review and Permitting				\$850,000				\$1,328,420
4	Final Plans, Specs, & Engineering				\$1,000,000				\$516,450
5	Pre and Post Project Monitoring (Biological and Shoreline)				\$850,000				Monitoring Plan preparation in progress
6	Cost-Benefit Analysis				\$40,000				Completed
7	Contingency				\$486,000				Needed for Mitigation
	TOTAL PLANNING COSTS:				\$ 3,726,000				\$ 3,726,000
Construction Costs									
1	Mobilization & Demobilization			\$2,500,000	\$2,500,000			\$2,500,000	\$2,500,000
2	Oceanside Beach	SO7	420,000	\$7.01	\$2,943,365	SO6	420,000	\$11.35	\$4,767,000
3	N. Carlsbad	SO5	225,000	\$9.01	\$2,026,713	SO6	225,000	\$10.33	\$2,323,421
4	S. Carlsbad	SO7	160,000	\$5.54	\$886,943	SO5	158,000	\$11.41	\$1,802,741
5	Batiquitos	SO7	118,000	\$5.04	\$595,107	SO5	118,000	\$10.23	\$1,207,247
6	Leucadia Beach	SO7	130,000	\$5.33	\$692,777	SO5	117,000	\$9.80	\$1,146,862
7	Moonlight Beach	SO7	103,000	\$5.58	\$574,649	SO5	105,000	\$9.00	\$944,841
8	Cardiff Beach	SO6	104,000	\$4.72	\$491,206	SO5	101,000	\$7.77	\$784,372
9	Fletcher Cove	SO5	140,000	\$5.96	\$833,968	SO5	146,000	\$7.66	\$1,118,198
10	Del Mar	SO5	180,000	\$5.29	\$952,218	SO5	183,000	\$6.80	\$0
11	Torrey Pines	SO5	240,000	\$5.79	\$1,389,651	SO5	245,000	\$7.44	\$1,822,800
12	Mission Beach	MB1	150,000	\$5.26	\$788,642	MB1	151,000	\$6.76	\$0
13	Imperial Beach	MB1	120,000	\$9.36	\$1,123,026	MB1	120,000	\$12.03	\$1,443,890
	Total amount of sand:		2,090,000	Subtotal:	\$13,298,265		2,089,000	Subtotal:	\$17,361,372
14	Construction Contingency			10%	\$1,579,826				\$1,579,826
15	Construction Management			7%	\$1,105,878				\$1,105,878
16	Construction Survey or Inspection			3%	\$473,948				\$473,948
	TOTAL CONSTRUCTION COSTS:				\$ 18,957,918				\$ 23,021,024
	TOTAL PROJECT COST:				\$ 22,683,918				\$ 26,747,024

Revenues								
1	Coastal Cities - Preliminary Planning and Cost Benefit			\$540,000				
2	Department of Boating and Waterways - authorized			\$13,000,000				
3	Department of Boating and Waterways - anticipated			\$6,500,000				
4	Coastal City Matching Funds - first three tasks			\$166,568				
5	Coastal City Matching Funds - second three tasks			\$256,466				
6	Coastal City Matching Funds - final three tasks			\$1,879,591				
	TOTAL REVENUES:			\$ 22,342,625				
	FUNDING SHORT FALL:							\$4,404,399.35

San Diego Association of Governments
SHORELINE PRESERVATION WORKING GROUP

April 1, 2010

AGENDA ITEM NO.: **5b**

Action Requested: INFORMATION

REGIONAL BEACH SAND PROJECT II (RBSP II)

File Number 3200200

Introduction

SANDAG applied for and received funds from the DBW for the planning and construction of the second RBSP project. These funds were provided for FY 2009 and 2010; funds are anticipated for FY 2011. The DBW requires a 15 percent match for funds received. To date, the coastal cities have provided matching funds for FY 2009 and have been asked to determine whether they will continue to participate in the project by providing the required 15 percent in matching funds for the second three project tasks. This commitment will then be memorialized in Amendment 1 to the MOU between SANDAG and the participating coastal cities (Attachment 1).

Recommendation

In an effort to move forward on implementing the project, SANDAG staff is recommending that the participating coastal cities take actions necessary to determine whether they will provide the required local match for the second three project tasks by the June SPWG meeting.

Background

SANDAG has been working with the coastal cities to secure matching funds. The cities of Oceanside, Carlsbad, Encinitas, Solana Beach, and Imperial Beach have provided funds that serve as the 15 percent match to FY 2009 DBW funds. These funds are being used toward the first three project tasks (Phase I), which include environmental review, permitting, and final engineering plans and specifications.

Phase II of the project will include monitoring, construction management, and funds for the planning contingency. Contingency funds have been included in anticipation of permitting requirements set forth by the resource agencies. The amount each participating coastal city would be expected to pay for Phase II is listed below. This amount reflects the 15 percent match to FY 2010 DBW funds broken down based on the approved funding methodology and project tasks.

The request for cities to make a determination on providing additional funds first came at the December 2009 working group meeting and was reiterated at the February 2010 meeting. This timeframe should provide ample additional time for decision making to take place with the hope that all participating coastal jurisdictions will continue to find funding to support their cities' involvement in the second three project tasks.

Those cities that continue to participate in the project will be asked again to memorialize their commitment. This will be done through an amendment to the MOU entered into in June 2009. The draft Amendment 1 to the MOU is included as Attachment 1.

Jurisdictions	60% Sand	10% Miles (01)	30% Population	Total
Oceanside	\$42,517	\$5,440	\$36,154	\$84,111
Carlsbad	\$38,978	\$6,006	\$20,166	\$65,150
Encinitas	\$46,072	\$7,461	\$12,187	\$65,719
Solana Beach	\$14,172	\$3,675	\$2,747	\$20,594
Del Mar	\$0	\$0	\$0	\$0
San Diego	\$0	\$0	\$0	\$0
Imperial Beach	\$12,141	\$3,065	\$5,686	\$20,892
Total	\$153,880	\$25,647	\$76,940	\$256,466

Jurisdictions	Biological and Shoreline Monitoring Match	Planning Contingency Match	Construction Management Match	Total
Oceanside	\$29,350	\$16,574	\$38,186	\$84,111
Carlsbad	\$22,734	\$12,838	\$29,578	\$65,150
Encinitas	\$22,933	\$12,950	\$29,836	\$65,719
Solana Beach	\$7,186	\$4,058	\$9,350	\$20,594
Del Mar	\$0	\$0	\$0	\$0
San Diego	\$0	\$0	\$0	\$0
Imperial Beach	\$7,290	\$4,117	\$9,485	\$20,892
Total	\$89,493	\$50,538	\$116,435	\$256,466

Attachment: 1. Draft Amendment 1 to Memorandum of Understanding #5001253 Between San Diego Association of Governments and San Diego Region's Participating Coastal Jurisdictions Regarding Regional Beach Sand Replenishment Project II

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

**AMENDMENT 1 TO MEMORANDUM OF UNDERSTANDING # 5001253
BETWEEN SAN DIEGO ASSOCIATION OF GOVERNMENTS
AND SAN DIEGO REGION'S PARTICIPATING COASTAL JURISDICTIONS
REGARDING REGIONAL BEACH SAND REPLENISHMENT PROJECT II**

This Amendment 1 to Memorandum of Understanding ("Amendment") is made and entered into effective as of this ___ day of ____, 2010, by and between the San Diego Association of Governments ("SANDAG") and the City of Carlsbad, City of Encinitas, City of Imperial Beach, City of Oceanside, and City of Solana Beach ("Coastal Cities").

RECITALS

The following recitals are a substantive part of this Amendment:

WHEREAS, in _June 2009_, the parties entered into Memorandum of Understanding # 5001253 to implement the Regional Beach Sand Project II (the "Project") on a regional basis; and

WHEREAS, SANDAG received funds for fiscal year 2010 in the amount of \$6.5 million for the second year of the Project implementation in the San Diego region from the Department of Boating and Waterways (DBW); and

WHEREAS, SANDAG expects to receive additional funds for fiscal year 2011 in the amount of \$6.5 million for the third year of Project implementation from DBW; and

WHEREAS, the DBW funding requires a 15 percent local match to be paid by the San Diego region for all DBW funds expended on the Project; and

WHEREAS, the Coastal Cities anticipated execution of an amendment to the MOU to reflect their ongoing commitment to provide the 15 percent match for the additional Project funds; and

WHEREAS, the Project methodology to allocate the 15 percent match required by DBW among the Coastal Cities is based on the formula of 60 percent amount of sand received, 10 percent miles of coastline restored, and 30 percent population; and

WHEREAS, SANDAG requires a funding commitment from each Coastal City prior to work commencing on each of the second phase of the Project tasks using the additional funding; and

WHEREAS, the proportional share of the Project for the first three Project tasks (Phase 1) has been paid by the Coastal Cities; and

WHEREAS, the Coastal Cities agree to pay their proportional share of the Project for the second phase of the Project, which includes biological and shoreline monitoring, planning contingency as needed to fulfill permitting requirements, and construction management (Phase 2); and

WHEREAS, the parties wish to memorialize additions and modifications to the MOU with this Amendment in order to carry out the purposes set forth above;

NOW THEREFORE, in consideration of the mutual promises set forth herein, the parties agree as follows:

AGREEMENT

SANDAG AGREES:

1. To manage Phase 2 of the Project in coordination with the Coastal Cities through the Shoreline Preservation Working Group; and involve the Coastal Cities in the implementation of all phases of the Project.
2. The SANDAG Project Manager will invoice the Coastal Cities a minimum of 30 days prior to the start date of Phase 2 of the Project to ensure prompt payment by all parties.

COASTAL CITIES AGREE:

1. Each Coastal City has approved its appropriation as set forth in the chart below, being its proportional share of the required DBW 15 percent match for Phase 2 of the Project, which includes biological and shoreline monitoring, planning contingency as needed to fulfill permitting requirements, and construction management. Funds will be paid to SANDAG prior to the start date of Phase 2 of the Project.

Jurisdictions	60% Sand	10% Miles (01)	30% Population	Total
Oceanside	\$42,517	\$5,440	\$36,154	\$84,111
Carlsbad	\$38,978	\$6,006	\$20,166	\$65,150
Encinitas	\$46,072	\$7,461	\$12,187	\$65,719
Solana Beach	\$14,172	\$3,675	\$2,747	\$20,594
Del Mar	\$0	\$0	\$0	\$0
San Diego	\$0	\$0	\$0	\$0
Imperial Beach	\$12,141	\$3,065	\$5,686	\$20,892
Total	\$153,880	\$25,647	\$76,940	\$256,466

2. The Coastal Cities understand that SANDAG will not proceed with Phase 2 of the Project without the assurances set forth in this Amendment, reflecting the Coastal Cities' approvals of their respective appropriations, the aggregate of which will fund the Project.

THE PARTIES MUTUALLY AGREE:

1. That all obligations of SANDAG under the terms of this Amendment are subject to the appropriation of the required resources by SANDAG and the Coastal Cities, and the approval of the SANDAG Board of Directors.
2. That unless it is amended by the parties in writing, the MOU shall terminate on December 31, 2012, or on such earlier or later date as the parties may agree to in writing. Any party wishing to withdraw from this MOU shall provide 60 (sixty) days written notice of its desire to withdraw. If such notice is given, the MOU shall continue to be binding on those parties who have not formally withdrawn, and the withdrawing party shall be responsible for its portion of the costs that SANDAG incurred prior to receiving the notice.
3. This Amendment may be executed in any number of identical counterparts, each of which shall be deemed to be an original, and all of which together shall be deemed to be one and the same instrument when each party has signed one such counterpart.
4. That all terms of the MOU remain unchanged and binding except to the extent they are modified by this Amendment.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties hereto have executed this Amendment effective on the day and year first above written.

SAN DIEGO ASSOCIATION OF GOVERNMENTS

APPROVED AS TO FORM:

GARY L. GALLEGOS
Executive Director

Office of General Counsel

City of Carlsbad

APPROVED AS TO FORM:

Claude A. Lewis
Mayor

Ron Ball
City Attorney

City of Encinitas

APPROVED AS TO FORM:

PHILLIP COTTON
City Manager

Glenn Sabine
City Attorney

City of Imperial Beach

APPROVED AS TO FORM:

GARY BROWN
City Manager

Jim Lough
City Attorney

City of Oceanside

APPROVED AS TO FORM:

JIM WOOD
Mayor

John Mullen
City Attorney

City of Solana Beach

APPROVED AS TO FORM:

DAVID OTT
City Manager

Johanna Canlas
City Attorney

San Diego Association of Governments
SHORELINE PRESERVATION WORKING GROUP

April 1, 2010

AGENDA ITEM NO.: **5c**

Action Requested: INFORMATION

REGIONAL BEACH SAND PROJECT II (RBSP II)

File Number 3200200

Introduction

The RBSP II is currently in the planning phase. The consultant team is working on the preparation of the environmental document. The Shoreline Preservation Working Group is asked to review and comment on the Project Description (Attachment 1) and Alternatives (Attachment 2).

Background

Prior to preparation of the draft RBSP II Environmental Impact Report/Environmental Assessment (EIR/EA), the working group is asked to review the attached Project Description and Alternatives and provide comments by April 9, 2010.

The Project Description is Chapter 1 of the draft EIR/EA provided as Attachment 1. The Alternatives are listed in Tables 2-2, 2-3, and 2-4 and will be included in Chapter 2 of the draft EIR/EA, which also will include a detailed analysis that will be available for comment during the public review period in early 2011.

Next Steps

The next steps associated with the preparation of the environmental document include a public scoping meeting at the June working group meeting, as well as two additional public meetings, one held in North County and one in the south. Additional stakeholder meetings also will likely be held as the draft document is being prepared. The draft EIR/EA should be available in January 2011.

Attachments: 1. Regional Beach Sand Project II EIR/EA, Chapter 1.0 – Introduction
2. RBSP II Alternatives

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

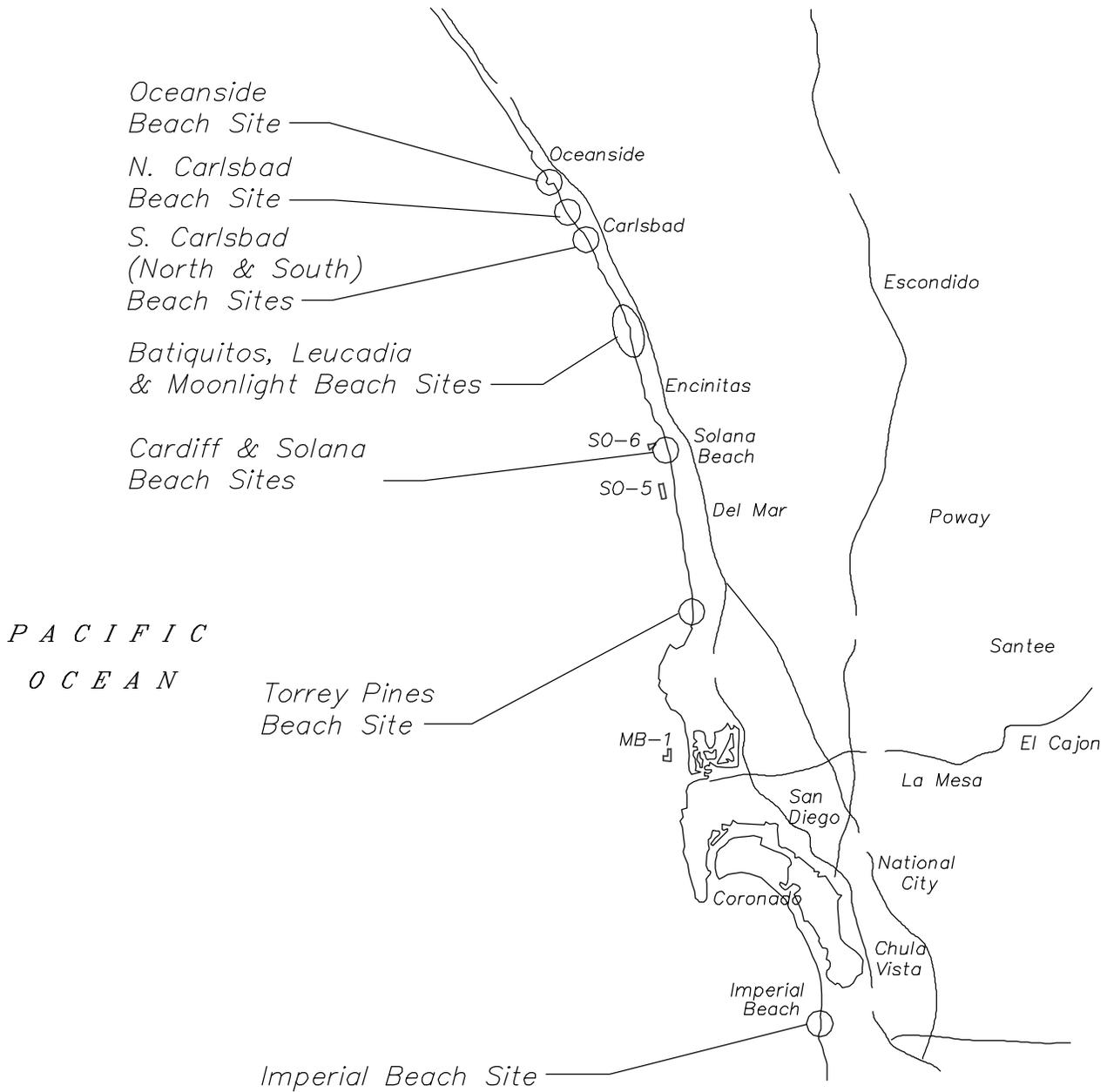
CHAPTER 1.0 INTRODUCTION

1.1 BACKGROUND

This Environmental Impact Report /Environmental Assessment (EIR/EA) addresses the potential environmental impacts associated with Regional Beach Sand Project (RBSP) II proposed by the San Diego Association of Governments (SANDAG). The proposed project would be similar to RBSP I, a pilot project implemented by SANDAG in 2001, which provided sand replenishment at 12 San Diego region beaches. At that time, approximately 2 million cubic yards (mcy) of clean beach-quality sand was dredged from six offshore borrow sites and placed on receiver sites located from Oceanside to Imperial Beach. Similarly, the proposed RBSP II project would dredge sand from three offshore sites (possible quantity ranging between 1.8 to 2.8 mcy) to provide sand for up to 11 receiver sites (depending on the alternative) from Oceanside to Imperial Beach. This document evaluates three build alternatives, as well as a No Action Alternative, representing a range of sand replenishment opportunities.

Generally, the proposed borrow sites would be located adjacent to those utilized for RBSP I. RBSP II would replenish 10 of the 12 receiver beaches constructed in RBSP I, with one potential additional site, and several design variations to provide additional recreational and economic benefits. RBSP II includes one additional receiver site at South Carlsbad South, which was originally evaluated as an alternative in RSBP I but was not constructed. RBSP II does not propose replenishment at the previous Del Mar or Mission Beach receiver sites. Figure 1-1 identifies the proposed RBSP II receiver and borrow sites.

SANDAG is the state lead agency responsible for compliance with the California Environmental Quality Act of 1970 (CEQA) statutes (Cal. Pub. Res. Code § 21 et seq., as amended) and implementing guidelines (Cal. Code Regs., Title 14, § 15000 et seq. (1998)). The U.S. Army Corps of Engineers (USACE) is the federal lead agency responsible for compliance with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. § 4332 (1994)) in accordance with the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 C.F.R. §§ 1500–1508). The two agencies have agreed to prepare a joint EIR/EA pursuant to both CEQA and NEPA. Specific requirements associated with the USACE NEPA Decision Document are detailed in Chapter 7 of this EIR/EA. This chapter includes analysis, or references analysis in Chapter 4 Environmental Consequences, to support the NEPA process for the USACE.



NO SCALE

**Figure 1-1
Regional Map**

1.1.1 Project Background

The San Diego region's beaches and seacliffs have been steadily eroding for several decades. The region is experiencing a net loss of sand at numerous beaches along its coastline. In 1993, SANDAG prepared the *Shoreline Preservation Strategy for the San Diego Region* (SPS), which identified regional coastal areas with critical shoreline problems and recommended a strategy to address the issue. The SPS acknowledged a deficit condition in the region requiring large-scale beach nourishment. As noted in the SPS, "a beach building and maintenance program is recommended as the primary shoreline management tactic for each of the problem areas. These problem areas, from south to north, are the shoreline segments for:

- Silver Strand State Beach in the southern part of Coronado, all of Imperial Beach, and extending about 2 ½ miles south into Mexico;
- The entire shoreline from Oceanside Harbor south to and including La Jolla Shores beach in San Diego. These beach building and maintenance programs emphasize the nourishment of narrow beaches with sand to make them wide enough to provide increased property protection and recreational capacity, and the periodic resupply of sand to these beaches to maintain them. ”

Most recently, SANDAG finalized the Coastal Regional Sediment Management Plan for the San Diego Region (RSM Plan) in March 2009. The RSM Plan uses the information established in the SPS as a baseline guideline for the level of comprehensive nourishment needed for the San Diego Region. This RSM Plan was developed to further inform the public and decision-makers on sand deficits and related issues within the region, and proposes solutions for existing sediment management problems along the coast. Insufficient sediment or sand volumes exist along the San Diego County shoreline, leading to coastal erosion, narrowing of beaches, damage to infrastructure, habitat degradation, and reduced recreational and economic benefits.

The Coast of California Storm and Tidal Waves Study (CCSTWS), a 6-year, \$6 million scientific evaluation of the San Diego region's shoreline conducted by the USACE documented the factors causing shoreline erosion and projected trends of increasing beach loss and property damage into the future (USACE 1991).

Beach sand is a product of weathering of the land. The primary natural source for the region's beaches is sediment carried from upcoast, and from inland areas by rivers and streams and coastal bluff erosion. Over the past half century, human actions have been the major influence

affecting the shoreline. Through urban development activities, including harbor construction, water reservoir and dam building, flood control systems, and sand mining, natural sediment transport has been hindered or eliminated. Oceanside Harbor acts as a major barrier/sink to longshore sand transport to the Southern Oceanside Littoral Cell from upcoast. Also, most major coastal streams have at least one dam and reservoir. Much of the freshwater that naturally flowed to coastal wetlands is diverted to farms and cities. These dams reduce the size of flood flows and thus reduce the sediment yield from the watershed. They also trap sand that would otherwise nourish coastal beaches. This sand would ultimately become beach sand, which is the primary buffer protecting seacliffs and coastal development from erosion and storm damage. To offset the loss of natural sand sources no longer reaching the San Diego region shoreline, previous projects have built “man-made” beaches. Aside from the previous RBSP I project, most of the sand used for this purpose in the San Diego region has come from the massive harbor construction projects in San Diego Bay and Oceanside Harbor. Smaller nourishment is associated with routine maintenance of harbors and lagoons and associated inlets, most notably:

- Oceanside Harbor navigational maintenance dredging;
- Agua Hedionda Lagoon dredging to maintain conditions for a power plant operation; and
- Batiquitos Lagoon dredging for habitat maintenance.

Recently, some local jurisdictions have adopted the Sand Compatibility Opportunistic Use Program (SCOUP) concept to capture smaller-scale sand sources (Moffatt & Nichol 2006). On a city-by-city basis, permits associated with SCOUP may allow several thousand cubic yards of sand that would otherwise remain land locked to be placed on receiver sites. These projects are specifically discussed in Chapter 5 in the context of potential cumulative impacts. Quantities associated with these efforts remain extremely low relative to the regional loss and are the opportunistic by-product of development. While the likelihood is low that sources of sand as large as these dredging projects will be available in the future, sand replenishment projects can help offset the gradual narrowing and disappearance of the region’s beaches; loss of associated environmental, recreational, economic, and aesthetic benefits; and the increasing storm damage to coastal property and infrastructure. The need for nourishment may become even more critical in the future with potential sea level rise.

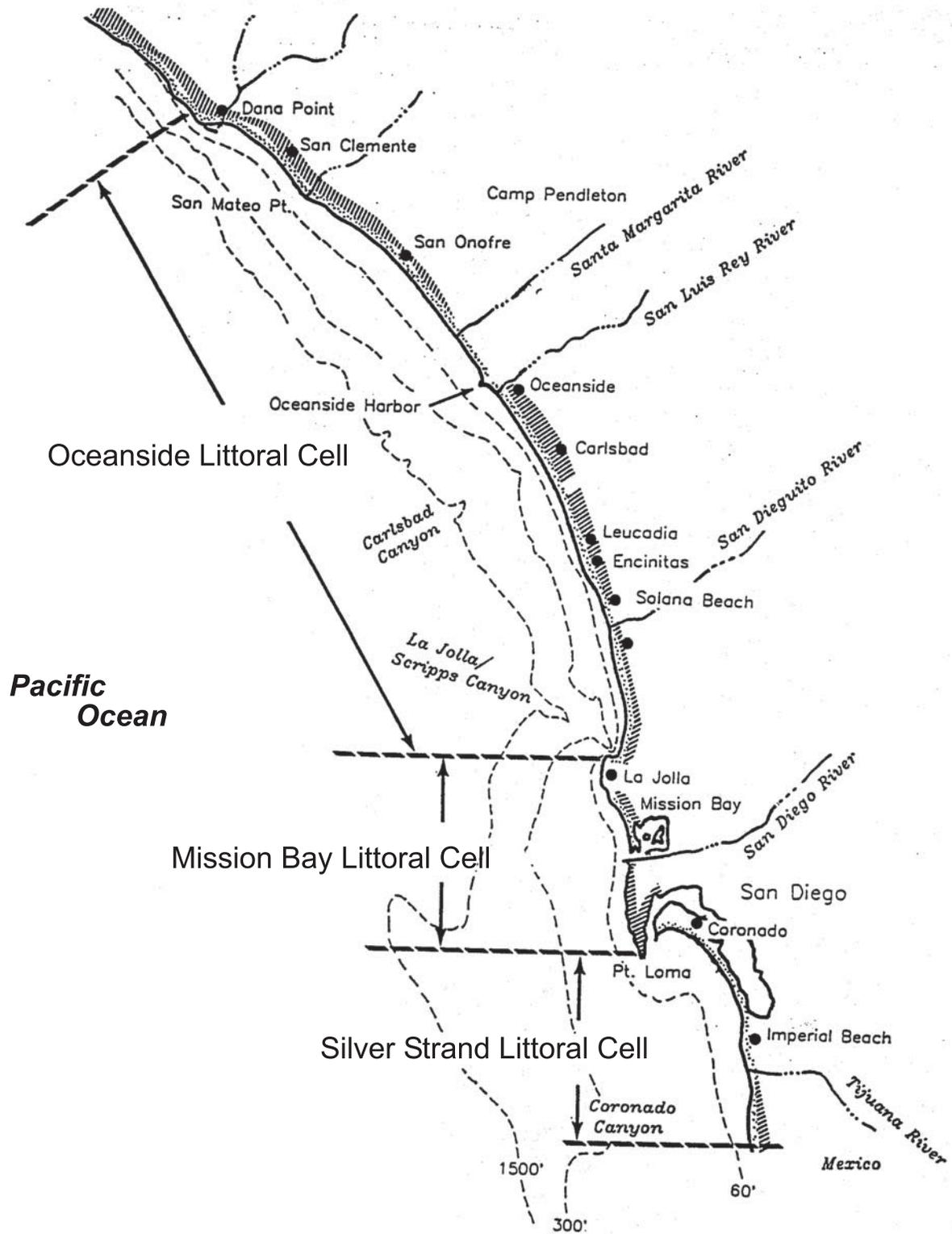
Littoral sand moves in both the cross-shore and longshore directions. The natural cross-shore sand cycle is a seasonal process. Sand moves on- and offshore along the beach profile, which extends from the above-water (exposed) shoreline area to the offshore depth at which seasonal sand movement is detected. The water depth at the outer limit of seasonal sand movement is

referred to as the depth of closure, which varies depending on site specific conditions. Typically for the San Diego region, greater sand movement from the exposed beach to the offshore portion of the profile occurs in the winter due to large storms and waves, followed by a period of sand gain to the exposed beach during the summer's more gentle conditions and surf. Thus, the exposed portion of the beach generally is wider in the summer and narrower in the winter. These combined seasonal processes, including both winter and summer sand shifts, comprise a complete cross-shore sedimentation cycle.

Longshore sand transport occurs continually and also varies seasonally. A littoral cell is a coastal reach bounded by physiographic features (e.g., submarine canyons, coastal headlands, harbors, etc.) where sediment enters, moves along, and leaves the coast. It is the dynamic interface between the ocean and the land. Along the San Diego region's coast, there are three littoral cells (Figure 1-2). Bounded on one side by the landward limit of the beach and extending seaward beyond the area of breaking waves, a littoral cell is the region where wave energy dissipates. Littoral cells are physically interconnected; occurrences in one part of a littoral cell may ultimately have an impact on other parts. The three littoral zones off of the San Diego region include the southern half of the Oceanside Littoral Cell, the Mission Bay Littoral Cell, and the Silver Strand Littoral Cell. The southern half of the Oceanside Littoral Cell stretches from Oceanside to La Jolla¹ and includes the shorelines of the cities of Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar, and San Diego. The Mission Bay Littoral Cell includes Ocean, Mission, and Pacific beaches in San Diego. The Silver Strand Littoral Cell extends from south of the international border to the Zuniga Jetty at San Diego Bay, and includes the shorelines of the cities of Imperial Beach and Coronado.

Within the littoral cell, sand can move up and down the coast as well as onshore and offshore. Sand can also be carried by littoral drifting into submarine canyons. For example, it has been estimated that Scripps Submarine Canyon near La Jolla captures an average of 70,000 cubic yards (cy) of sand from littoral drift (Moffatt & Nichol 2000). Sand capture rates at Scripps Canyon vary, and were higher in the 1950's at 200,000 cy/yr (Chamberlain 1960) and lower in the 1980's at 29,000 cy/yr (Everts and Dill 1988). Sand that drifts into submerged canyons essentially exits the littoral cell and is no longer available to replenish beaches during the summer. The seaward edge of an active littoral cell is defined as its "depth of closure." Substantial quantities of sand from coastal littoral cells do not usually travel outside of this depth and into the deeper ocean, except during severe coastal storm wave events. Insufficient shoreward energy exists to move sand from outside the depth of closure back into the littoral

¹ The northern half of the Oceanside Littoral Cell extends from Oceanside to Dana Point in Orange County.



Source: Moffatt & Nichol Engineers



**Figure 1-2
Littoral Cells
in the San Diego Region**

Regional Beach Sand Project II EIR/EA

P:\2008\08080112 RBSP II EIR\5.0 Graphics (Non-CAD)\5.4 Proj_Graphics\Fig 1-2 Littoral Cells.ai (dbrady) 3/5/10

cell. In San Diego, the depth of closure ranges from approximately -13 to -32 feet (Coastal Frontiers Corporation 2007). The proposed dredging activities would take sand from borrow sites² outside (deeper than) the depth of closure and place sand within the most eroded two of the three littoral cells. The new sand being introduced to the system is expected to remain within the respective littoral cells and enter the seasonal cycle of beach loss and gain. Conversely, dredging inside (shallower than) the depth of closure would merely relocate sand material already within the littoral cell and not constitute a net addition.

In 2001, SANDAG implemented RBSP I, which nourished 12 receiver sites with approximately 2 mcy of sand. This project provided enhanced beach areas and served as an opportunity to study the effects of large-scale nourishment within the region. Sand placed on receiving beaches as part of the RBSP I was anticipated to be retained for less than five years. Post-construction monitoring (Coastal Frontiers Corporation 2008) indicates that on average, beach width gains in the region were maintained for a period of four years and that shorezone volume gains were sustained for approximately six years. As of 2008, there still appeared to be RBSP I sand in the system and this material will serve as a foundation for the planned RBSP II. (Coastal Frontiers Corporation 2008). However, the region is still experiencing a deficit condition requiring additional replenishment (Patsch & Griggs 2006) and has returned to its pre-RBSP II condition (Coastal Frontiers Corporation 2008). The SPS identifies an initial regional beach building program need of up to 30 mcy. The placing of 2 mcy during RBSP I, therefore, reduced that need, but did not eliminate it. While some sand placed as part of RBSP I and various maintenance projects may remain in the littoral system, additional replenishment is still required to decrease the deficit identified in the SPS and ongoing sand loss recorded by monitoring (Coastal Frontiers Corporation 2008). The proposed RBSP II project would serve as a second regional beach sand replenishment project to continue to offset erosion.

In October 2008, SANDAG began preliminary planning activities associated with RBSP II. To initiate RBSP II, a preliminary engineering study was performed to help define an overall project description, identify potential receiver and borrow sites, and develop viable project alternatives to carry forward in the environmental analysis, permitting, and final engineering. Development of this study was a collaborative effort, involving input from several consultants as well as a larger group of stakeholders that participate in SANDAG's Shoreline Preservation Working Group (Working Group). The Working Group is comprised of stakeholders from each coastal jurisdiction, resource agencies, and related community organizations.

² The term "borrow" refers to material to be taken from one location to be used as fill at another location.

Since October 2008, the Working Group has met several times to discuss project progress, funding, and other concerns related to RBSP II. Through this collaborative process, borrow and receiver sites were identified and refined based on sand grain size as well as accessibility.

1.1.2 Previous Environmental Documentation

SANDAG's San Diego Regional SPS describes the region's beach erosion trends, as well as policies and strategies for restoring and maintaining the beaches. Independent of that report, the Navy analyzed a separate action in *Final Environmental Impact Statement (EIS) for the Development of Facilities in San Diego/Coronado to Support the Homeporting of One NIMITZ Class Aircraft Carrier* (Department of the Navy 1995). To accommodate the carrier, the Navy proposed to dredge the carrier berthing area, turning basin, and the San Diego Bay navigation channel. A portion of the dredged sediment was initially believed suitable for beach replenishment. As one option to dispose of the dredged material from the Homeporting project, the Navy evaluated nine beach receiver sites in the San Diego region in this EIS. The Navy subsequently prepared two EAs as tiered analyses to the EIS due to subsequent changes in the location of beach receiver sites; *Environmental Assessment for Beach Replenishment at South Oceanside and Cardiff/Solana Beach, California* (Department of the Navy 1997a) and *Environmental Assessment for Beach Replenishment at North Carlsbad, South Carlsbad, Encinitas, and Torrey Pines* (Department of the Navy 1997b). As a result of the Homeporting project and subsequent EAs, permits were issued to the Navy to place approximately 5.5 million cy of sand dredged from San Diego Bay, both onshore and nearshore, at 11 receiver sites along the San Diego region coastline. During beach replenishment in Oceanside, however, munitions were found in the dredged materials from San Diego Bay and replenishment efforts were halted. Prior to the halting of the beach replenishment disposal, approximately 284,000 cy of sediment were placed on three receiver sites; specifically, Oceanside, Del Mar, and Mission Beach. Oceanside received 102,000 cy (onshore), Del Mar received 170,000 cy (nearshore), and Mission Beach received 12,000 cy (nearshore).

In 1999, SANDAG, in cooperation with the Navy, prepared *Final EIR/EA for the Regional Beach Sand Replenishment Project* (SANDAG 2000). RBSP I was designed to place approximately 2 mcy over generally the same receiver sites as the Navy's permitted project (Table 1-1). However, the sand source was changed from dredged material in San Diego Bay to dredged material from six offshore borrow sites, and additional receiver site locations were added. Existing data from the Navy's prior analyses were used, where applicable. The monitoring program established by the Navy project permits was used as a framework for designing the monitoring program for RBSP I. RBSP I was successfully constructed between

March and September of 2001. Monitoring occurred before, during, and after construction. Post-construction monitoring involved measuring the elevation of the beach and seabed at key transects (profiles) as well as nearshore at key reef locations.

**Table 1-1
Comparison of Sand Replenishment Volumes
2001 RBSP I and Proposed RBSP II**

Receiver Site	RBSP I ¹ (cubic yards)	RBSP II (cubic yards) ²		Receiver Site Boundaries ³ Relative to RBSP I
		Minimum	Maximum	
Oceanside	421,000	420,000	610,000	Shifted approximately 1,800 ft north toward pier from RBSP I, or extended same distance
North Carlsbad	225,000	225,000	255,000	Identical to RBSP I, or extended 400 ft south
South Carlsbad North ⁴	158,000	158,000	220,000	Identical to RBSP I, or extended north 1,000 ft
South Carlsbad South	N/A	0	142,000	Directly south of Encinas Creek
Batiquitos	118,000	118,000	177,000	Identical to RBSP I or extended
Leucadia	132,000	90,000	117,000	Identical to RBSP I but with narrower berm under minimum scenario
Moonlight Beach	105,000	105,000	No Change	Identical to RBSP I
Cardiff	101,000	101,000	230,000	Identical to RBSP I or extended 200 ft north and 800 ft south
Solana Beach	146,000	146,000	435,000	Identical to RBSP I or extended up to 2,000 ft north and 1,800 ft south
Del Mar	183,000	N/A	N/A	N/A
Torrey Pines	245,000	245,000	No Change	Identical to RBSP I
Mission Beach	151,000	N/A	N/A	N/A
Imperial Beach	120,000	120,000	300,000	Shifted 1,300 ft closer to pier or extended up to 1,750 ft north and 1,700 ft south
Total	2,105,000	1,728,000	2,836,000	

ft = feet

¹ RBSP I volumes reflect the as-built project (Noble 2001)

² RBSP II has three alternatives that range from 1.8 mcy to 2.8 mcy. For convenience, this table discloses the ranges. Refer to Section 2.4 for details of each alternative at each receiver site.

³ The minimum quantity alternative may be identical to RBSP I, while the maximum quantity alternative may extend farther up or down the beach.

⁴ An additional Carlsbad site has been added to RBSP II. The South Carlsbad site used in RBSP I is now referred to as South Carlsbad North, while the South Carlsbad South site is a newly proposed replenishment site.

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 locations as those included in RBSP I, with some variations due to economic or recreational needs. A second site in South Carlsbad has been identified; however the Del Mar site and the Mission Beach site will not

be included as part of the proposed project. To the extent possible, this EIR/EA relies on the analysis included in the EIR/EA for RBSP I. A comparison of RBSP I and RBSP II sand volumes and receiver site locations is provided in Table 1-1.

1.2 PURPOSE AND NEED

The purpose of the proposed beach replenishment project is to replenish beaches in accordance with the SPS and RSM Plan. These documents identified regional coastal areas with critical shoreline problems and the need for large regional replenishment projects to place up to 30 mcY of sand to address these problems. Although a number of small and/or localized replenishment projects are currently being implemented or planned in the region, these efforts would not substantially reduce the 30 mcY deficit identified in the SPS and supported in the RSM Plan. The Working Group has used the SPS and RSM Plan, in conjunction with monitoring results from RBSP I, as a basis for developing the proposed RBSP II. The project identifies up to 11 receiver sites that have continued to experience erosion and a need for large-scale replenishment. Each of the receiver sites is identified as an initial Beach Erosion Concern Area (BECA) in the RSM Plan. Placement at the proposed 11 receiver sites would provide additional sand placement within two of the three littoral cells within the region. The proposed action would serve four main functions: (1) to replenish the littoral cells 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.

1.3 PROPOSED ACTION

The proposed action would provide beach replenishment at San Diego region beaches. Between 1.8 and 2.8 mcY of dredged sediment from three offshore borrow sites located outside of the depth of closure (i.e., outside of the respective littoral cells) would be placed on up to 11 receiver beaches. This document evaluates, at an equal level of detail, three possible alternatives for replenishment, identified as Alternatives 1, 2, and 3. No preferred alternative has been identified at this time. A complete description of each alternative is found in Section 2.4. The proposed project is anticipated to be constructed in spring and summer of 2012.

Implementation of the project would occur on some or all of the following 11 receiver beaches in the San Diego region:

-
- Oceanside
 - North Carlsbad
 - South Carlsbad North
 - South Carlsbad South
 - Batiquitos
 - Leucadia
 - Moonlight
 - Cardiff
 - Solana Beach
 - Torrey Pines
 - Imperial Beach

Most of the 11 possible receiver sites are within suburban areas of the San Diego region and are bordered by residential, commercial, or light industrial uses. The proposed receiver sites are located in the cities of Oceanside (1 site), Carlsbad (3 sites), Encinitas (4 sites), Solana Beach (1 site), San Diego (1 site) and Imperial Beach (1 site). All or portions of the beaches in Carlsbad, Encinitas, and San Diego are State Beaches. The locations of all the potential receiver sites (north to south) are identified briefly below. The locations reflect the receiver site footprint with the maximum length under any of the three alternatives. Refer to Section 2.4 for a detailed description of receiver sites under each alternative.

The Oceanside receiver site, under the maximum length alternative, extends from Wisconsin Avenue south to Kelly Street. The fill would extend up to 5,950 linear feet and include up to 610,000 cy of sand. The proposed site is similar to RBSP I, but has been shifted farther north. The maximum length alternative would extend the site approximately 1,800 feet north, closer to Oceanside Pier. The proposed receiver site consists of a predominately flat, sandy beach that extends approximately 60-80 feet from the high tide line to The Strand. (The Strand is a narrow public road between the beach and abutting residence.) South of Wisconsin Avenue, the receiver site narrows into an eroded beach with riprap (large boulders) slopes from the back of existing residences to the approximate high tide mark. The receiver site gently slopes from the high tide mark into the surfzone. South of Oceanside Boulevard, there is a sandy pocket beach approximately 150 feet wide and 125 feet from the road to the line of riprap which protects homes to the north and south of Buccaneer Beach to just north of Kelly Street.

The North Carlsbad receiver site is located south of the Buena Vista Lagoon and extends for up to 3,500 linear feet to Oak Street. Up to 255,000 cy of sand would be placed at this site. The proposed site is similar to RBSP I, but would be extended 400 feet to the south under the maximum length alternative. This beach segment consists of a predominantly flat sandy beach, extending approximately 50 feet from the surf line to riprap slopes and seawalls that protect existing beach front residences and fragile bluffs.

The South Carlsbad receiver sites, both North and South, are adjacent to the Carlsbad State Beach campground facilities located north and south of Encinas Creek. These beach fills would extend up to 3,100 and 1,830 linear feet, respectively, and would include a maximum of 220,000 and 142,000 cy of sand placement. The South Carlsbad North site would be similar to RBSP I, but would be extended 1,000 feet to the north in the maximum length alternative. The South Carlsbad South site was not included as part of RBSP I, but would begin just south of Encinas Creek. The existing beach at the South Carlsbad North site is completely washed over during high tide and vegetated bluffs approximately 40 to 50 feet in height abut the beach. The beach at the South Carlsbad South site consists of a slightly wider but eroded flat beach predominately comprised of cobbles. This proposed receiver site also lies at the base of vegetated bluffs varying in height from approximately 60 to 80 feet. Portions of the South Carlsbad receiver sites are located on the Carlsbad State Beach.

The Batiquitos receiver site is located approximately 1,000 feet south of the Batiquitos Lagoon (the area is also known as “Ponto”), stretching for approximately 1,500 feet into the community of Leucadia and Leucadia State Beach. Up to 177,000 cy of sand would be placed on this site. The Batiquitos receiver site would be similar to RBSP I. At the northern part of the receiver site, a relatively flat, sandy and cobbly beach exists. Steep vegetated cliffs abut the southern portion of the proposed receiver site, where a gently sloping sand beach with scattered rocks, cobbles, and riprap exists. Along this southern portion, the beach is completely washed over by incoming surf during high tide. Several residences are located on the bluff above.

The proposed receiver site at Leucadia extends approximately 2,700 linear feet from just south of the Grandview access stairs to Jasper Street. The proposed receiver site is similar to RBSP I, but would have a narrower berm under the maximum length alternative. Up to 117,000 cy of sand would be used to replenish this beach. The exact volumes proposed would depend on the width of the berm placed at the beach. The Leucadia receiver site is similar to the southern end of the Batiquitos receiver site in that steep vegetated cliffs abut the beach. The beach consists of a gently sloping sand beach with scattered rocks, cobbles, and riprap. At high tide waves reach the bluffs. Several residences are located on the bluff above.

The proposed Moonlight Beach receiver site is located at the foot of B and C Streets at Moonlight State Beach. The proposed receiver site is similar to RBSP I and extends approximately 770 linear feet. Up to 105,000 cy would be used for beach replenishment at this site. The receiver site consists of a gently sloping sandy beach extending approximately 100 feet

wide from the high tide line to the adjacent residential uses and existing recreational area. Riprap is located at the northern extent of the receiver site to protect the residential uses.

The Cardiff receiver site is located south of the San Elijo Lagoon mouth and also south of Restaurant Row along Coast Highway 101. The receiver site extends approximately 780 feet and would receive up to 230,000 cy of sand. The receiver site is similar to RBSP I, but would be extended 200 feet to the north and 800 feet to the south under the maximum length alternative. The beach along this receiver site extends approximately 30 to 40 feet from the high tide line to cobble and riprap. The riprap provides an approximately 10 to 15 feet buffer for Highway 101, a key north-south arterial. Riprap exists along the northern portion of the site to protect several existing restaurants. The beach and surfing area is also known as George's.

The Solana Beach receiver site's northern boundary begins north of Fletcher Cove Beach Park and extends approximately 1,900 feet south of the beach access point. The receiver site is similar to RBSP I, but would be extended 2,000 feet to the north and 1,800 feet to the south under the maximum length alternative. Up to 435,000 cy of sand would be placed on this site. Steep cliffs abut the receiver site and the beach consists of a gently sloping sand beach with scattered rocks and cobbles. Riprap and seawalls line the cliffs in an ongoing effort to slow wave-induced erosion. At high tide the beach is not visible along the majority of the receiver site as waves reach the cliffs and existing sea walls. Several pocket beaches exist along the receiver site, with small sandy beaches at Tide Park and Fletcher Cove, which both sit above the high tide mark.

The Torrey Pines receiver site is bordered by the Los Peñasquitos Lagoon and Torrey Pines State Reserve. The receiver site stretches for approximately 1,600 feet and is located on Torrey Pines State Beach. The receiver site is similar to RBSP I and a total of 245,000 cy would be placed on this site. The beach is a gently sloping, thin-sand beach with scattered cobbles and high bluffs along Torrey Pines State Reserve. During high tide, waves reach the bluffs along the southern portion of the receiver site. There is also riprap to protect North Torrey Pines Road from storm wave action.

The Imperial Beach receiver site is adjacent to the Tijuana Slough National Wildlife Park and predominantly residential development, and has been shifted north compared to RBSP I, closer to the pier. The receiver site, under the maximum length alternative, would receive up to 300,000 cy of sand and would extend for approximately 5,750 feet from Imperial Beach Boulevard north of the pier to approximately 1,000 feet south of Encanto Avenue. The northern end of the receiver site, from Palm Avenue to Beach Avenue, consists of a wide sandy beach. Riprap is in place to protect adjacent residential development from wave action.

The three proposed borrow sites are located within or adjacent to borrow sites defined during the RBSP I project; SO-6, SO-5, and MB-1. Investigations for RBSP II focused on the previous borrow sites, then expanded to determine whether additional deposits of beach quality sand were present. These additional investigations resulted in the expansion of some of the previous borrow site boundaries to encompass areas with the highest quality sand. Proposed dredge areas for RBSP II would be located within these expanded borrow sites, which are further discussed in Section 2.4.

1.4 PUBLIC INVOLVEMENT PROCESS

Throughout the environmental process, SANDAG has solicited input on key issues and concerns relevant to the scope of this EIR/EA from public agencies, stakeholder and interest groups, and the general public. The public scoping process has been designed to determine the range of issues addressed in the EIR/EA. Additional stakeholder meetings have also assisted in defining the concerns addressed within this document. The different aspects of public scoping discussed in this section include the Notice of Preparation (NOP) and specific stakeholder group coordination, as well as areas of controversy identified as a result of the scoping process.

1.4.1 Notice of Preparation (NOP)

<<to be prepared>>

1.4.2 Stakeholder Coordination

<<to be prepared>>

1.4.3 Comments Received During Scoping

<<to be prepared>>

1.4.4 Areas of Special Concern to Commentors

<<to be prepared>>

1.5 INTERAGENCY COORDINATION

SANDAG is the lead agency for the proposed project under CEQA, while the NEPA lead agency is USACE. A number of additional agencies have either jurisdiction or permitting authority over the project. Consequently, the agencies listed below have been coordinating with the lead agencies on the proposed action. A more detailed description of the extensive agency and public coordination undertaken as part of this project is provided in Chapter 8.0.

U.S. Environmental Protection Agency	California State Parks
U.S. Fish and Wildlife Service	City of Oceanside
National Marines Fisheries Service	City of Carlsbad
California Coastal Commission	City of Encinitas
California Department of Boating and Waterways	City of Solana Beach
California Department of Fish and Game	City of San Diego
California Department of Parks and Recreation	City of Imperial Beach
California Regional Water Quality Control Board (San Diego, Region 9)	County of San Diego
California State Lands Commission	Port of San Diego
California State Mining and Geology Board	

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**Table 2-2
Sand Quantities Proposed Under Each Alternative**

Receiver Site	Probable Borrow Site	Alternative 1 (cubic yards)	Alternative 2 (cubic yards)	Alternative 3 (cubic yards)
Oceanside	SO-6 and/or SO-5	420,000	420,000	610,000
North Carlsbad		225,000	225,000	255,000
South Carlsbad North	SO-5	158,000	220,000	220,000
South Carlsbad South		N/A	142,000	142,000
Batiquitos		118,000	118,000	177,000
Leucadia		117,000	117,000	90,000
Moonlight Beach		105,000	105,000	105,000
Cardiff		101,000	101,000	230,000
Solana Beach		146,000	360,000	435,000
Torrey Pines		245,000	245,000	245,000
Imperial Beach		MB-1	120,000	300,000
TOTAL		1,755,000	2,263,000	2,809,000

**Table 2-3
Borrow Site Characteristics**

	Borrow Site SO -6	Borrow Site SO-5	Borrow Site MB-1
Approximate Volume Available for Dredging (cy)*	700,000	1,900,000	1,600,000
Maximum Surface Area to be dredged (in acres)	44	124	107
Water Depth (ft, MLLW)	-42 to -56	-34 to -49	-60 to -74
Potential Volume of Sand to be Dredged (cy)**			
Alt 1 (1.8 mcy)	645,000	990,000	120,000
Alt 2 (2.3 mcy)	645,000	1,408,000	210,000
Alt 3 (2.8 mcy)	700,000	1,809,000	300,000

Source: Moffatt and Nichol 2009

* Assumes entire footprint dredged 10 feet.

** Volume varies within footprint by increasing the depth of dredge (up to a maximum of 10 feet).

**Table 2-4
Summary of RBSP II Alternatives**

Receiver Site	Alternative 1 1.8 mcY	Alternative 2 2.3 mcY	Alternative 3 2.8 mcY
Oceanside	420,000 cy 4,100 LF RBSP I, but entire footprint shifted 1,800 ft closer to pier	Same as Alt. 1	610,000 cy 5,950 LF RBSP 1 extended 1,800 ft to north
N. Carlsbad	225,000 CY 3,100 LF Identical to RBSP I	Same as Alt. 1	255,000 CY 3,500 LF RBSP I with extended 400 ft to south
S. Carlsbad N.	158,000 CY 2,100 LF Identical to RBSP I	220,000 CY 3,100 LF RBSP I with northern end extended 1,000 ft	Same as Alt 2
S. Carlsbad S.	---	142,000 CY 1,830 LF Located just south of Encinas Creek	Same as Alt 2
Batiquitos	118,000 CY 1,490 LF Identical to RBSP I	Same as Alt. 1	177,000 CY 2,080 LF
Leucadia	117,000 CY 2,700 LF Identical to RBSP I	Same as Alt. 1	90,000 CY 2,700 LF Narrower berm than Alt. 1
Moonlight	105,000 CY 770 LF Identical to RBSP I	Same as Alt. 1	Same as Alt. 1
Cardiff	101,000 CY 780 LF Identical to RBSP I	Same as Alt. 1	230,000 CY 1,780 LF RBSP 1 extended 200 ft to north and 800 ft to south
Solana Beach	146,000 CY 1,900 LF Identical to RBSP I	360,000 CY 4,700 LF RBSP I extended 1,000 ft north and 1,800 ft south	435,000 CY 5,750 LF RBSP I extended 2,000 ft north and 1,800 ft south
Torrey Pines	245,000 CY 1,620 LF Identical to RBSP I	Same as Alt. 1	Same as Alt. 1
Imperial Beach	120,000 CY 2,310 LF RBSP I, but shifted 1,300 ft closer to pier	210,000 CY 4,050 LF Similar to Alt. 1, but extended 1,700 ft south. South boundary similar to RBSP I	300,000 CY 5,750 LF Similar to Alt. 1, but extended 1,750 ft to north and 1,700 ft south. South boundary similar to RBSP I
TOTAL	1,755,000 CY	2,263,000 CY	2,809,000 CY