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MEETING NOTICE AND AGENDA

SHORELINE PRESERVATION WORKING GROUP

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

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

Imperial County
 California Department
 of Transportation
 Metropolitan
 Transit System
 North San Diego County
 Transit Development Board
 United States
 Department of Defense
 San Diego
 Unified Port District
 San Diego County
 Water Authority
 Mexico

Thursday, December 7, 2006

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

AGENDA HIGHLIGHTS

- CALIFORNIA COASTAL COMMISSION MEMORANDUM OF AGREEMENT
- REGIONAL SHORELINE MONITORING PROGRAM REVISED COSTS
- MAKING SMART DECISIONS ABOUT BEACH NOURISHMENT

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SHORELINE PRESERVATION WORKING GROUP

Thursday, December 7, 2006

ITEM #	RECOMMENDATION
1. WELCOME AND INTRODUCTIONS	
+2. SUMMARY OF THE JULY 6, 2006, MEETING	APPROVE
<p>The July 6, 2006, meeting summary is attached. Because there was no quorum at the October 5 meeting, the SPWG will review and approve the minutes from this meeting as well.</p>	
+3. SUMMARY OF THE OCTOBER 5, 2006, MEETING	APPROVE
<p>The October 5, 2006 meeting summary is attached. The SPWG will review and approve.</p>	
+4. CALIFORNIA COASTAL COMMISSION MEMORANDUM OF AGREEMENT	RECOMMEND
<p>The California Coastal Commission (Commission) and SANDAG entered into a Memorandum of Agreement (MOA) in 1996. This MOA established a process for administration of the Commission's Beach Sand Mitigation Fund. The Commission is requesting SANDAG and the Commission enter into an additional MOA to establish a similar process for the administration of the newly established Public Recreational Beach Impact Mitigation Fund. Attached is a copy of the draft MOA for the Working Group's review.</p>	
+5. REGIONAL SHORELINE MONITORING PROGRAM REVISED COSTS	RECOMMEND
<p>In 2005, the Working Group voted to continue the Regional Shoreline Monitoring Program. Coastal Frontiers is under contract to continue the current program until June 30, 2007, with three one-year options for future monitoring. The costs of the monitoring program have increased and staff is seeking a recommendation from the Working Group as to whether the current program should continue, which would increase the cost paid by each jurisdiction, or the program should be modified to sustain current costs. Detailed cost estimates are included in Attachment 5A.</p>	

ITEM #	RECOMMENDATION
6. MAKING SMART DECISIONS ABOUT BEACH NOURISHMENT	INFORMATION
<p>Dr. Bill O'Reilly, a researcher at the Scripps Institution of Oceanography, will be discussing some preliminary findings from the ongoing Southern California Beach Process Study and their potential impact on regional sediment management decision-making in the San Diego region.</p>	
+7. REGIONAL BEACH REPLENISHMENT	DISCUSSION/POSSIBLE ACTION
<p>At the October meeting, the Working Group directed staff to determine what the 2001 Regional Beach Sand Project would cost today, and to develop a timeline to a future project implementation. Attached are copies of the requested materials for Working Group review and discussion.</p>	
8. UPDATE ON OPPORTUNISTIC SAND PROGRAMS	INFORMATION
<p>Chris Webb from Moffatt and Nichol will provide an update on the status of the second environmental document being prepared for the cities of Coronado, Encinitas, Imperial Beach, and Solana Beach as part of the Sand Compatibility and Opportunistic Use Program (SCOUP). Additionally, Steve Jantz from the City of Carlsbad will provide an update on their opportunistic sand program.</p>	
9. LEGISLATIVE UPDATE	INFORMATION
<p>Steve Aceti from CalCoast will discuss the status of state and federal legislation.</p>	
10. PUBLIC COMMENTS/COMMUNICATIONS	COMMENTS
<p>Members of the public will have the opportunity to address the SPWG during this time.</p>	
11. ADJOURNMENT AND NEXT MEETING	INFORMATION
<p>The next SPWG meeting will be held on Thursday, February 1, 2007, from 11:30 a.m. to 1 p.m.</p>	

+ next to an item indicates an attachment

San Diego Association of Governments
SHORELINE PRESERVATION WORKING GROUP

December 7, 2006

AGENDA ITEM NO.: **2**

Action Requested: APPROVE

SUMMARY OF THE JULY 6, 2006, MEETING

File Number 3000200

Members in Attendance:

Ann Kulchin, Chair, City of Carlsbad
Jim Bond, City of Encinitas
Carrie Downey, Coronado
Kevin Faulconer, City of San Diego
Jerry Finnell, City of Del Mar
Joe Kellejian, City of Solana Beach

Advisory Members in Attendance:

Steve Aceti, California Coastal Coalition (CalCoast)
Reinhard Flick, California Department of Boating & Waterways
Sherilyn Sarb, California Coastal Commission
Julie Thomas, Scripps Institution of Oceanography

Staff Working Group:

Steven Apple, City of Solana Beach
Ray Duncan, City of Oceanside
Steven Jantz, City of Carlsbad
Ed Kleeman, City of Coronado

Danny L. Schrotberger, City of San Diego
Kathy Weldon, City of Encinitas
Greg Wade, City of Imperial Beach

Others in Attendance:

Bud Carroll, Carlsbad Citizen
Dick Erhardt, Carlsbad Beach Preservation
Committee
Claudio Fassardi, Noble Consultants
Jamie Fox-Rice, City of San Diego
Greg Hearon, Coastal Frontiers
Judy Hegeuauer, Solana Beach Civic and
Historical Society
Jack Hegenauer, Solana Beach Citizen
Pat Holzinger, Encinitas Seacoast Preservation

Lawrence Honma, Merkel & Associates
Anne-Lise Lindquist, Moffatt & Nichol
Dave Oakley, Encinitas Seacoast Preservation
Barry Snyder, AMEC
Susan Steele, Encinitas Seacoast Preservation
Chris Webb, Moffatt & Nichol
Trisha Rominger, SANDAG
Rob Rundle, SANDAG
Shelby Tucker, SANDAG

1. Introductions

Ann Kulchin welcomed the Working Group and the Working Group provided self-introductions. Shelby Tucker introduced the new SANDAG Intern, Trisha Rominger.

2. Summary of the April 6, 2006, Minutes

Ms. Shelby Tucker informed the Working Group that Mr. Kevin Faulconer's name was misspelled in the minutes but will be corrected. Mr. Joe Kellejian motioned to approve the April 6, 2006, meeting minutes with the correction of Mr. Faulconer's name. Mr. Jerry Finnell seconded the motion. Motion passed unanimously.

3. Regional Shoreline Monitoring Program Annual Report

Greg Hearon from Coastal Frontiers provided an overview of the results from the 2005 monitoring program. Mr. Hearon provided a review of historical beach nourishment between 1993-2000 and reviewed the Regional Beach Sand Project (RBSP).

Mr. James Bond asked Mr. Hearon if Silver Strand was a mix of beach and shore placement. Mr. Hearon stated that it was a mixture of both.

Mr. Hearon explained that in 2005, the beaches saw a deficit in nourishment. He added that beach widths are retracting to pre-RBSP levels. At this time, Silver Strand is more narrow than before the RBSP.

Mr. Hearon explained that the objectives of the monitoring program include measuring changes in shore zone and monitoring RBSP beach fills. Key changes to the monitoring program include:

- Beach Component
 - Reduce transects from 47 to 39.
 - Omit spring aerial photos.
 - Omit receiver site analysis.
- Lagoon Entrance Component
 - Omit topographic surveys.
 - Omit spring aerial photos.

Mr. Hearon added that the cities of Carlsbad, Encinitas, and Solana Beach have continued the monitoring of their respective beaches.

Mr. Hearon stated that the beach conditions show a diminished benefit from the RBSP, with beach widths retreating back to Pre-RBSP levels. In addition, Mr. Hearon added that the sediment volumes were sustained.

Mr. James Bond asked Mr. Hearon if he knew what explained Mission Beach's increase in beach width. Mr. Hearon explained that sand retention was afforded by the jetty.

4. Regional Beach Replenishment

Mr. Steve Apple, Solana Beach, provided an overview of the staff subgroup meeting held on June 26. The staff subgroup consists of a city staff person from each of the coastal jurisdictions. All jurisdictions were invited to participate.

Over the last couple of months, discussions with some of the north coastal cities regarding funds which may be available for beach replenishment have occurred. Ms. Shelby Tucker, SANDAG, added that it was important to note that when the 2001 RSBP was done, SANDAG had a source of funds from the Navy. Currently, SANDAG has no source of funds. Ms. Tucker suggested that the next steps should be:

- Look for ways to leverage local funds to obtain state funds. She has discussed possibilities with Kim Sterrett and there are several steps that need to be taken to obtain funds from Boating and Waterways, including defining the project.
- Look for other funding sources and opportunities.

The California Coastal Commission balance of beach sand funds per city, including a proportional distribution of interest earned since July 1998 as of June 30, 2005 are:

- Encinitas - \$200,223.37
- Solana Beach - \$403,713.29
- La Jolla - \$1,598.82

Mr. Apple explained to the Working Group that the subgroup would like to explore the possibility of conducting another beach project similar to the RBSP of 2001. Mr. Apple added that last month, Solana Beach passed their Transient Occupancy Tax. This will provide some funds for beach sand replenishment. There is a possibility that California Boating and Waterways may fund a one-time expenditure to start the program. Mr. Apple asked that staff speak to their respective city managers and councils to see if there is an interest to fund and participate in a regional beach sand program.

Mr. Kevin Faulconer asked how the City of San Diego participated in the 2001 program. Mr. Greg Wade, City of Imperial Beach, said that the City participated greatly by providing sand to use in Imperial Beach when their sand contained too much cobble. Mr. Faulconer also asked what sources of funds were given for the 2001 program. Ms. Tucker stated that state and federal monies funded the majority of the project. Mr. James Bond added that the local jurisdictions did provide some funding as well. Ms. Tucker stated that local funds were mostly used to mitigate impacts.

Mr. Joe Kellejian suggested the Working Group entertain the possibility of accepting in-kind donations, such as information from studies such as ones conducted by the Army Corp of Engineers. Their study has gathered a significant amount of information which was not available during the 2001 RBSP. There has already been \$4 million invested in this study. Mr. Kellejian also stated that the Regional Planning Committee must be kept apprised of any developments.

Mr. Joe Kellejian motioned to prepare and present resolutions from local jurisdictions to the Board of Directors in support of a new beach project similar to the 2001 RBSP. Motion seconded by Mr. James Bond. Motion passed unanimously. Mr. Jerry Finnell voted in favor with the understanding that he would need to discuss the financial implications with the Del Mar City Council. Ms. Shelby Tucker stated that staff will put together a sample resolution and distribute to the staff subgroup.

5. Update on City of Carlsbad Coastal Programs

Mr. Steve Jantz, City of Carlsbad, and Dick Erhardt presented information on the Beach Attendance Survey completed by Dr. Phil King in 2005.

Mr. Steve Jantz explained that evaluating the economic impact of beach visitors was the Beach Preservation Committee's number one goal for 2005. City council authorized a contract with Dr. Phillip King to conduct a study that occurred between May and September 2005.

Mr. Erhardt explained that the study was conducted to get an understanding of the economic impact Carlsbad beaches have. The study included estimated beach attendance in high season, estimated spending related to beach tourism, and a survey of beach visitors.

The study did not include visitors on seawall, coast walkway, hotels, or South Carlsbad State Beach Campground, only the sand area within Carlsbad boundaries. The survey of beach users examined spending habits, where beach goers came from, length and location of their stay, reason for visit, mode of transportation used, and opinions regarding beach amenities.

The study revealed that an estimated 600,000 people visited the beach, spending a total of \$26,500,000 in Carlsbad. The typical visitor spent \$66 per day, \$44 of which was spent in Carlsbad. The largest spending category was lodging, accounting for \$22 per person. It was also discovered that the estimated tax revenue was \$94,409 in local sales tax and \$1,284,792 in Transient Occupancy Taxes. The survey results also revealed that 83 percent were not city residents.

Mr. Jantz stated that the study concluded that beaches are an important economic engine for the City of Carlsbad and that maintaining beach widths and cleanliness should be a priority in beach management. It was also concluded that attendance data collection should be continued. The Beach Preservation Committee recommended the development of a local beach nourishment project to ensure adequate sand levels. It was also recommended that the City of Carlsbad lobby state and federal representatives to provide adequate funding to improve safety and cleanliness of the local beaches and consider enhancements/betterments for the beach as a city council goal.

Mr. Jantz mentioned that the presentation to Carlsbad City Council went extremely well. Ms. Kulchin agreed and added that the statistics show how important it is.

Mr. Faulconer asked if the survey questions were open-ended or ranked. Mr. Jantz replied that they were all ranking questions. Mr. Faulconer also asked if there were any comments about alcohol on the beach. Mr. Jantz stated that there were not any questions related to alcohol on the beach and that alcohol was banned on the beaches since 1980. Mr. Earhardt added that one issue that was brought up is that people really resent having pet waste on the beach.

Mr. Bond commented that most people forget that Encinitas beaches are state owned. The City of Encinitas pays approximately \$2 million a year for maintenance of state beaches, including lifeguards and bathrooms. The City of Encinitas had assumed responsibility for maintenance approximately 20 years ago, but technically it is the state's responsibility.

6. Sand Compatibility and Opportunistic Use Program (SCOUP)

The Sand Compatibility and Opportunistic Use Program (SCOUP) has been completed and SCOUP 2 is currently being worked on.

Mr. Chris Webb, Moffatt and Nichol, provided an update. Mr. Webb stated that Oceanside is currently pursuing permits. At this time, EDAW is in the process of completing the California Environmental Quality Act (CEQA) documents for Coronado, Imperial Beach, Solana Beach, and Encinitas. Mr. Webb explained that each city has unique objectives and are in the process of preparing administrative documents. He added that the documents will be ready for staff review in six weeks. More analysis is being done on SCOUP 2 because there are more cities. Public review is anticipated in October with public comment ending at the end of October. Final documents are expected in November. Ms. Tucker added that the contract has been extended to December.

7. Legislative Update

Mr. Steve Aceti, CalCoast, discussed the status of state and federal legislation. A legislative update was attached to the agenda packet.

Mr. Aceti stated that several non-governmental organizations (NGOs) have been working to pass Senate Bill 1125 (SB 1125) (Chesbro), which would extend the sunset on the Tidelands Oil provisions of the Public Resources Code. Senate Bill 1125 could create new accounts for maintenance of coastal wetlands and the Non-Game Fish and Wildlife Program. The bill is making its way through legislature at this time.

Mr. Bond stated that water agencies are struggling with the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Initiative. Mr. Aceti added that the measure does reach a lot of different needs.

Assembly Bill 2838 would give 20 coastal and bay area counties the option of increasing vehicle registration fees by up to \$6 per vehicle to fund clean water and other environmental programs countywide.

Mr. Greg Wade stated that funding for beach studies fared well in senate appropriations, but were eliminated in house appropriations.

Mr. Aceti stated that there was a substantial surplus of tidelands money because it is tied to the price of gas. He added that he expects talks with Senator Ducheny will occur suggesting that she author a bill to attempt to obtain a portion of the tidelands funding surplus.

8. Public Comment/Communications

Ms. Shelby Tucker stated that Bob Leiter, SANDAG, had previously given a presentation on infrastructure bonds. Staff is working on the work program related to a potential quality-of-life

measure. At this time, work is still being done on the work program. Ms. Tucker added that staff will keep the Working Group apprised on the status of this project.

Mr. Bob Carroll announced that International Conference on Coastal Engineering will be hosted in San Diego on September 3-8. This conference will host numerous professionals involved in coastal issues. He added that if anyone was interested in participating, they should contact Mr. Ron Noble. Ms. Tucker added that any interested parties could contact her and she would contact Mr. Noble.

Mr. Joe Kellejian stated that this conference occurred at the same time the League of California Cities Conference was being held in San Diego. He stressed the importance of keeping the Regional Planning Committee apprised of what happens with the Shoreline Preservation Working Group.

Ms. Tucker informed the Working Group that a Shoreline Preservation Working Group annual report would be included as a consent agenda item at the July 7th Regional Planning Committee meeting.

Mr. Reinhard Flick stated that he endorsed the Coastal Frontiers philosophy to continue monitoring. He added that even with nourishment programs, monitoring remained an important component.

Kathy Weldon, City of Encinitas, stated that the people counter in Encinitas has been calibrated. Additionally, Karen Green's report has been finalized. She also asked Ms. Tucker for a copy of the SPWG annual update presented to the Regional Planning Committee. Lastly, she stated that survey results and images were available on their Web site.

Ms. Tucker informed the Working Group that their next meeting would be in conflict with the League of California Cities conference. She suggested possibly moving the date to October. The Working Group decided to move the meeting to October 5, 2006.

9. Adjourn

Chair Ann Kulchin adjourned the meeting. The next SPWG meeting will be on October 5, 2006, from 11:30 to 1 p.m.

San Diego Association of Governments
SHORELINE PRESERVATION WORKING GROUP

December 7, 2006

AGENDA ITEM NO.: **3**

Action Requested: APPROVE

SUMMARY OF THE OCTOBER 5, 2006, MEETING

File Number 3000200

Members in Attendance:

Jim Bond, City of Encinitas
Joe Kellejian, City of Solana Beach
Carrie Downey, City of Coronado
Crystal Crawford, City of Del Mar

Advisory Members in Attendance:

Steve Aceti, California Coastal Coalition (CalCoast)
Julie Thomas, Scripps Institute of Oceanography
August Felando, California Lobster & Trap Fishermen's Association
Bob Hoffman, NMFS

Staff Working Group:

Ray Duncan, City of Oceanside
Steven Jantz, City of Carlsbad
Ed Kleeman, City of Coronado
Danny L. Schrotberger, City of San Diego
Kathy Weldon, City of Encinitas

Others in Attendance:

Anne-Lise Lindquist, Moffatt & Nichol
Barry Snyder, AMEC
Bill Gelfound
Chris Webb, Moffatt & Nichol
Claudio Fassardi, Noble Consultants
Dave Downey, North County Times
Dave Oakley, Encinitas Seacoast Preservation
Dick Erhardt, Carlsbad Beach Preservation Committee
Erin Kennedy
Karen Green, SAIC
Lawrence Honma, Merkel & Associates
Shelby Tucker, SANDAG
Susan Steele, Encinitas Seacoast Preservation

1. Introductions

Mr. Jim Bond welcomed the Working Group and the Working Group provided self-introductions. Mr. Bond stated that the order of business items would be changed for the meeting.

2. Summary of July 6, 2006, Minutes

Summary of previous minutes was skipped due to no quorum.

3. Sand Compatibility and Opportunistic Use Program (SCOUP)

Chris Webb of Moffatt & Nichol provided an overview of the current project (SCOUP 2) and its latest status. The Mitigated Negative Declaration created for the Cities of Coronado, Encinitas, Imperial Beach, and Solana Beach will be distributed to the cities for their review and public review will be held in November.

Mr. Webb explained that the City of Oceanside, which was the site for the first SCOUP project, is in the permit process. They are collecting grain sizes and creating an envelope of sizes that are acceptable for beach replenishment. He explained that "less than optimum" sand is sand with 25 percent or more silts and clays.

Mr. Bond asked how far out in the ocean will opportunistic sand be pulled from. Mr. Webb stated that sand will not be pulled from the ocean. The City of Oceanside has two potential sites to pull sand from, one within the city and one outside the city to the north.

Mr. Bond also explained that the Encinitas hotel project has created 50,000 cubic yards of quality beach material that could be used in Oceanside. Oceanside is a good recipient because the beaches in Encinitas are too difficult to transport large quantities of sand to.

4. Funding Beach Replenishment

Dr. Phillip King, San Francisco State University, provided the Working Group information on his study for the California Department of Boating & Waterways regarding funding beach nourishment. Dr. King explained that the purpose of this study was to look at possible state and local funding sources for beach nourishment and the potential for dedicated taxes. Dr. King also discussed his study on beach attendance for the City of Encinitas.

Dr. King stated that California does not receive much funding from the federal government. New Jersey receives more funding but has far less coastline. The main reason for this is the number of projects with "federal interest" is fewer in California. Florida is a good comparison to California as the beaches create a similar economic impact there. However, Dr. King stated that Florida also receives more federal funding for various unknown reasons.

Mr. Bond stated that Florida has a similar length of coastline to California but receives significantly more funding per mile.

Mr. Steve Aceti explained that New Jersey, New York, and Florida have been working on beach nourishment much longer than California. California has had trouble meeting cost/benefit ratio analyses. The California program focuses on creating and maintaining recreation, while the federal program focuses on protecting private property. This disparity could be a partial reason for lack of funding. Additionally, New Jersey and Florida have dedicated funding sources at the local level that California does not have.

Dr. King explained that federal entitlements are growing rapidly and the Army Corps of Engineers is competing with other spending. The State of California is also hampered with structural budget deficits and beach nourishment spending is a very small fraction of the total budget.

Dr. King stated that the most important point in all of this is that 55 percent of Florida's funding comes from local sources (municipal or county level), and they could survive without any federal funding. Their local funding comes from the equivalent of a Transient-Occupancy Tax (TOT).

Mr. Aceti stated that in Florida, the convention and visitors bureaus (CVB) have been very active in promoting beach nourishment, while in San Diego, the CVB has not even been present in discussions.

Dr. King stated that the CVB was actively hostile. Mr. Aceti stated the CVBs unofficial concern is that discussion about beach restoration will negatively impact tourism and business.

Dr. King explained that most other states finance beach nourishment through TOTs. Florida uses a property tax assessment based on distance from the beach. Some states also use dedicated funds, i.e., real estate transfer taxes (RET). California is different because RET taxes are administered locally. Some states have also created specific funds. In Delaware, over \$10 million is available for beach nourishment programs.

Dr. King conducted a study of three local cities and what the potential revenue could be from small increases in TOTs. He discussed an example for Carlsbad where a 1 percent increase in TOT would create about \$1 million per year in additional funds.

Dr. King explained that about 50 percent of beach-goers are day-trippers from out of town who do not generate any money in the beach cities. He stated that while cities cannot charge admission to the beach, one possible option is to charge for parking and exempt locals and those who pay the TOT.

Crystal Crawford stated that the City of Del Mar does charge for parking in most areas near the beach and receives much criticism. The money pays for beach services.

Dr. King stated that most people who use the beaches regularly have very high incomes and could afford to pay for parking. The California Coastal Commission's concern is making the beach accessible for everyone, but it seems like some who can afford to pay could contribute towards beach nourishment through parking fees.

Crystal Crawford asked whether the communities that have permit parking in place were grandfathered into the Coastal Act.

Dr. King stated that state parks and beaches charge and the overall income of visitors is lower, for example, at Huntington State Beach it is more than at Huntington City beaches.

Dr. King added that if Carlsbad exempted local residents and hotel guests, the city could still generate over \$500,000 a year including maintenance.

Dr. King expressed that financing is critical for beach nourishment and that local governments must get involved in order to accomplish anything.

Mr. Aceti added that the Office of Management & Budget (OMB) does not want the Army Corps of Engineers (ACOE) to start new projects. The New Jersey and Florida projects are already going and maintaining. San Diego will hit a brick wall on local projects if we cannot move past the beginning phases of preparing studies.

Carrie Downey asked if TOTs could be raised 0.25 percent statewide. Dr. King responded that it would be hard to convince voters to raise a statewide tax. Beach nourishment is not a big enough issue, they would need support from other groups. Bond financing is the most promising source of funding at the state level.

Erin Kennedy asked if it is possible to charge developers more for building on beaches and cliffs as development causes erosion. Dr. King stated that it is possible but it will cause arguments.

Mr. Bill Gelfound gave a summary of the New Jersey project. He explained that the local governments are very proactive and very supportive of beach nourishment. There is a charge to get onto the beach, as well as for parking. They also use Real-Estate Transfer (RET) tax dollars for when properties are sold.

Mr. Joe Kellejian stated that SANDAG is considering a "Quality-of-Life" Tax similar to the *TransNet* Tax. It would be a sales tax increase of 0.25 percent for stormwater improvements, sand, water quality, etc.

Dr. King's second presentation focused on the City of Encinitas. He looked at whether or not the laser counters were working. The two main reasons for the study were a lack of accurate counts statewide of how many people use the beaches and not knowing whether beach replenishment actually draws more people to the beaches or not. His conclusion is that the counters in Encinitas are successful but need to be calibrated on a regular basis.

5. Report on Regional Shoreline Management Activities

Ms. Shelby Tucker explained that SANDAG staff will be providing the Regional Planning Committee (RPC) with an overview and update on the Regional Beach Sand Project, beach conditions today, and next steps regarding regional beach nourishment.

Ms. Tucker explained that SANDAG's recommendation is to get staff from all coastal cities together to discuss details of the project, cost estimates, etc. The purpose of presenting data to the RPC is simply to get them on board with the concept of future regional beach replenishment.

6. Regional Beach Replenishment

Ms. Tucker stated that resolutions were adopted by several cities and the RPC. Coronado and San Diego have not yet passed resolutions.

Ms. Crystal Crawford stated there is a need to get a project going as it has been five years since the original project and the beaches are continually losing sand. She added that Del Mar real estate groups and 74 percent of voters oppose a RET Tax.

Ms. Tucker added that the Coastal Commission funds that are held by SANDAG are specifically for construction costs, and the agency would need funds to cover planning costs for additional beach sand projects.

Ms. Carrie Downey stated that someone should talk to the City of San Diego representative about the importance of their support at the RPC meeting. She mentioned Coronado will be agendizing a resolution.

Mr. Bond expressed the need to continue to try to get federal funding, but they need to develop targets for the project.

Mr. Kellejian stated they need to create a specific timeline for funding. They need to move forward with a project and he would like to act quickly. They need to set one-year as a goal and move back from there to determine what needs to be done. One option, if other southern cities do not want to be involved, is to have a North County project.

Ms. Crawford reiterated that a timeline is important because we said we wanted to do a project every five-years and we are at the point of needing a new project. We should set goals and deadlines that we can work with but this is a tough sell without support from outside entities such as the real estate community.

Mr. Bond added that without money, creating targets and timelines would be an administrative effort only.

7. Legislative Update

Mr. Aceti, CalCoast, explained that two efforts had been made this year to create funding. One was vetoed and the other was held back by the author for fear of veto. They had support of 70 to 80 environmental groups statewide and it was still vetoed. They will be working on a new funding plan soon.

Mr. Aceti added that Proposition 84 would create \$185 million for ocean programs. The money would go to the Coastal Commission and they would be willing to work with the Department of Boating and Waterways for a beach restoration program.

Mr. Aceti stated that the current state Public Beach Restoration Program is within the Department of Boating and Waterways and receives much criticism because boater's taxes go to beach restoration. The program would be better received in the Coastal Commission.

8. Public Comments/Communications

No public comments.

9. Adjourn

Mr. Bond adjourned the meeting. The next SPWG meeting will be on Thursday, December 7, 2006.

San Diego Association of Governments
SHORELINE PRESERVATION WORKING GROUP

December 7, 2006

AGENDA ITEM NO.: **4**

Action Requested: APPROVE

CALIFORNIA COASTAL COMMISSION MEMORANDUM OF AGREEMENT

File Number 3002800

Attachments related to this item include:

- December 7, 2006, memorandum regarding the draft Memorandum of Agreement between SANDAG and the California Coastal Commission
- Draft Memorandum of Agreement between SANDAG and the California Coastal Commission



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

December 7, 2006

File Number 3002800

TO: Shoreline Preservation Working Group
FROM: SANDAG Staff
SUBJECT: Memorandum of Agreement between SANDAG and the California Coastal Commission

MEMBER AGENCIES

- Cities of*
- Carlsbad*
- Chula Vista*
- Coronado*
- Del Mar*
- El Cajon*
- Encinitas*
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- Imperial Beach*
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ADVISORY MEMBERS

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In 1996, SANDAG and the California Coastal Commission (Commission) entered into a Memorandum of Agreement which outlines the administration of the Beach Sand Mitigation Fund. The Beach Sand Mitigation Fund consists of fees collected by the Commission through its coastal development permit process pursuant to special conditions of various permits, as mitigation for the adverse impacts of shoreline protective structures, such as seawalls and revetments, on beaches within the region.

Recently, the Commission has set up a Public Recreational Beach Impact Mitigation Fund which consists of fees collected by the Commission as mitigation for the adverse impacts on public recreational use of the beaches within the region. The Commission is requesting SANDAG and the Commission enter into an additional Memorandum of Agreement to establish a process for the administration of funds from the Public Recreational Beach Impact Mitigation Fund.

Staff from SANDAG and the Commission have reviewed the draft Memorandum of Agreement and a copy is included in Attachment 4B. The Shoreline Preservation Working Group is being asked to review, discuss, and make a recommendation to the Regional Planning Committee. If approved, the Regional Planning Committee would be requested to take action by recommending the Board of Directors authorize the Executive Director to enter into the Memorandum of Agreement with the Commission.

If you have any questions regarding the current or draft Memorandum of Agreement, please contact Shelby Tucker at (619) 699-1916.

ST/dsn

Memorandum of Agreement Between
the San Diego Association of Governments (SANDAG)
and the California Coastal Commission
Establishing a Process for the Administration of the
Public Recreational Beach Impact Mitigation Fund

Whereas, the Public Recreational Beach Impact Mitigation Fund consists of fees collected by the California Coastal Commission ("Commission") through its coastal development permit process pursuant to special conditions of various permits, as mitigation for the adverse impacts on public recreational use of the beaches within San Diego County from development along the beach or shoreline including but not limited to, shoreline protective structures such as seawalls, revetments, and bluff retaining walls;

Whereas, the mitigation fees are deposited in an interest-bearing account created at SANDAG, with all interest earned payable to the account for the purposes stated below;

Whereas, the purpose of the account is to establish a Public Recreational Beach Impact Mitigation Fund ("Fund") to aid local governments, working cooperatively through SANDAG and the Commission, in providing recreational improvements designed to enhance public recreational beach use within San Diego County;

Whereas, the funds shall be solely used to implement projects that provide public recreational improvements which may include but are not limited to, public beach accessways, blufftop access, viewing areas, public restrooms, public beach parking, and public trail amenities, and not to fund operation, research, maintenance or planning studies;

Whereas, the Fund shall be allocated as provided for in this Memorandum of Agreement (MOA) between SANDAG and the Commission, setting forth terms and conditions to assure that the mitigation fees will be expended in the manner intended by the Commission;

NOW THEREFORE BE IT RESOLVED that it is the intent of the Commission and SANDAG to participate in the administration of the Public Recreational Beach Impact Mitigation Fund as follows:

1. Fund Administration

The Commission and SANDAG agree that the mitigation fees collected will be held by SANDAG in a trust fund maintained and operated by SANDAG as one Fund. However, SANDAG agrees to establish a separate accounting for monies within the Fund for each coastal jurisdiction in the San Diego County region. Mitigation fees collected from approved shoreline projects within each coastal jurisdiction shall be accounted for by jurisdiction;

Money from a coastal jurisdiction's account cannot be spent without having that jurisdiction's formal approval through resolution by City Council or Board of Supervisors;

The money in the Fund shall be invested by SANDAG in accordance with applicable law. Income and/or interest shall be credited to each coastal jurisdiction's account on a prorated basis. A copy of the accounting review shall be submitted annually, upon completion, to the Executive Director of the Commission ("Executive Director").

2. Fund Allocation

The Commission and SANDAG agree that the Commission and the region's coastal jurisdictions, working together with the Shoreline Preservation Working Group, shall evaluate proposed public recreational improvement projects and will recommend how much, if any, money from the fund should be allocated to a project and how much of the total allocation should come from each jurisdiction's account. No funds shall be allocated from a jurisdiction's account without the jurisdiction's formal approval through a resolution by City Council or Board of Supervisors;

The Commission and SANDAG agree that, prior to allocation of any funds, the recommendation of the Shoreline Preservation Working Group, after recommendation for approval by the Regional Planning Committee and approval by the SANDAG Board of Directors, must be submitted to the Executive Director for review and approval. The Executive Director must provide written concurrence with each allocation, before any allocation occurs;

The Commission and SANDAG agree that each disbursement shall only be made to the recipient with conditions that guarantee that the disbursement is issued as intended by the Shoreline Preservation Working Group and approved by SANDAG and the Executive Director. Any portion of the disbursement that is not used shall be returned to the Fund and accounted for in the contributing coastal jurisdiction's account(s) on a pro-rated basis.

3. Eligible Projects

Only projects which meet all of the following will be considered by the Commission and the Shoreline Preservation Working Group and SANDAG for funding:

- a. Only projects that are recommended to the Shoreline Preservation Working Group and approved by SANDAG and the Executive Director, by formal action of a local coastal jurisdiction, may be considered for funding. Projects may be carried out by the local jurisdictions themselves, by other agencies, including, but not limited to, the Army Corps of Engineers, the United States Navy, the California Coastal Conservancy, the California Department of Parks and Recreation or the California Department of Boating and Waterways; and/or non-profit organizations;
- b. Only projects that involve public shorefront recreational improvements for beach and beach-related public access which may include but are not limited to, public beach access stairways/ramps, blufftop access, viewing areas, public benches/bicycle racks, public restrooms, public beach parking, and public trail improvements, in San Diego County will be considered for funding. Because the fees that will go into the Fund are intended to mitigate for the loss of and/or impact to public recreational beach value resulting from construction of shoreline protective structures or other forms of development that have adverse effects on the beach or shoreline, only projects that provide public recreational improvements shall be supported by the fund;
- c. Only capital projects may be considered for funding. Mitigation fees shall not be used for operations, research, maintenance or planning studies. The Shoreline Preservation Working Group may recommend that funds be allocated to engineering or permitting (e.g., environmental documentation) costs directly related to the implementation of a capital project, under limited circumstances, and only if necessary to secure supplemental funds from another source;
- d. Any project considered for funding must obtain Coastal Act authorization from the local government having jurisdiction, and/or the Commission, prior to initiation of construction.

Memorandum of Agreement
Public Recreational Beach Impact Mitigation Fund

4. Project Funding Criteria

The Commission and SANDAG agree that mitigation fees generated within a coastal jurisdiction shall be used only for projects affecting that same coastal jurisdiction but may include regional projects that span and affect multiple jurisdictions;

BE IT FURTHER RESOLVED that it is the intent of this Memorandum of Agreement to assure consistency in the administration and allocation of mitigation fees from the Public Beach Recreational Impact Mitigation Fund.

BE IT FURTHER RESOLVED that this Memorandum of Agreement may be altered, changed or amended by mutual consent of the parties hereto. Either party may terminate this MOA by providing written notification 30 days prior to termination.

BE IT FURTHER RESOLVED that in the event of termination of this Memorandum of Agreement by either party, any and all remaining funds shall be transferred by SANDAG to the Commission or a Commission-approved alternate entity consistent with the principles set forth in this Memorandum of Agreement.

SAN DIEGO ASSOCIATION
OF GOVERNMENTS

CALIFORNIA COASTAL
COMMISSION

Executive Director

Executive Director

Date

Date

San Diego Association of Governments
SHORELINE PRESERVATION WORKING GROUP

December 7, 2006

AGENDA ITEM NO.: **5**

Action Requested: APPROVE

REGIONAL SHORELINE MONITORING PROGRAM REVISED COSTS

File Number 3002800

Attachments related to this item include:

- December 7, 2006, memorandum regarding the Regional Shoreline Monitoring Program.
- Regional Beach Sand Monitoring Program Options for Future Years, Including Funding Allocations.



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December 7, 2006

File Number 3002800

TO: Shoreline Preservation Working Group
FROM: SANDAG Staff
SUBJECT: Regional Shoreline Monitoring Program

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

- Imperial County
- California Department of Transportation
- Metropolitan Transit System
- North San Diego County Transit Development Board
- United States Department of Defense
- San Diego Unified Port District
- San Diego County Water Authority
- Mexico

The Regional Shoreline Monitoring Program (Program) provides physical measurements of the region's beaches essential to the design and evaluation of efforts to replenish beaches and manage the region's shoreline. Specifically, the Program measures the impacts of beach erosion over time, documents the benefits of sand replenishment projects, and helps to improve the design and effectiveness of beachfills.

On September 2, 2004, the Shoreline Preservation Working Group (Working Group) recommended SANDAG continue the Program. SANDAG issued a Request for Proposals and contracted with Coastal Frontiers in 2005. The contract is for two-years with three one-year options for additional monitoring.

Funding for the Program has been provided by the region's coastal cities since 1996. The allocation is based on each jurisdiction's proportion of shoreline miles of sandy beach, excluding federal lands. The program costs for FY 2006 and FY 2007 are approximately \$95,000. The breakdown of current costs per city is included in Attachment 5B. The costs for the additional years of monitoring possible as options to the contract have not been determined.

The costs of the Monitoring Program have increased and staff is seeking the Working Group's opinion as to whether the current program should continue, which would increase the cost paid by each jurisdiction, or the program should be modified to sustain current costs.

SANDAG staff requests that the Working Group review and approve one of the options laid out in Attachment 5B. Staff recommends the Working Group continue to fund the Program under option one.

If you have any questions regarding the Program, please contact me at (619) 699-1916.

ST/dsn

**REGIONAL BEACH SAND MONITORING PROGRAM OPTIONS FOR FUTURE YEARS,
INCLUDING FUNDING ALLOCATIONS**

Current Funding Allocation:

Jurisdiction	Shoreline (miles)	% of Total	Modified Program
Carlsbad	6.5	14.90%	\$14,110
Coronado	3.1	7.10%	\$6,724
Del Mar	3	6.90%	\$6,534
Encinitas	5.8	13.30%	\$12,595
Imperial Beach	2.7	6.20%	\$5,871
Oceanside	3.6	8.30%	\$7,860
San Diego	17.3	39.80%	\$37,690
Solana Beach	1.5	3.50%	\$3,314
Total	43.5	100%	\$94,698

Option 1: Maintain Existing Scope of Work

Program Year	Cost	% Increase
2005-2006	\$94,939	
2006-2007	\$94,939	0.0%
2007-2008	\$100,750	5.8%
2008-2009	\$103,975	3.1%
2009-2010	\$107,328	3.1%
Total	\$501,931	

- Notes: 1) 2006-2007 Program cost is identical to 2005-2006 per contract terms.
2) Annual increase in cost reflects negotiated 4 percent per annum increase in labor rates.

Jurisdiction	Shoreline (miles)	% of Total	2007-2008	2008-2009	2009-2010
Carlsbad	6.5	14.90%	\$15,012	\$15,492	\$15,992
Coronado	3.1	7.10%	\$7,153	\$7,382	\$7,620
Del Mar	3	6.90%	\$6,952	\$7,174	\$7,406
Encinitas	5.8	13.30%	\$13,400	\$13,829	\$14,275
Imperial Beach	2.7	6.20%	\$6,247	\$6,446	\$6,654
Oceanside	3.6	8.30%	\$8,362	\$8,630	\$8,908
San Diego	17.3	39.80%	\$40,099	\$41,382	\$42,717
Solana Beach	1.5	3.50%	\$3,526	\$3,639	\$3,756
Total	43.5	100%	\$100,750	\$103,975	\$107,328

Option 2: Omit Fall Aerial Photos from Existing Scope of Work

Program Year	Cost	% Increase
2005-2006	\$94,939	
2006-2007	\$94,939	0.0%
2007-2008	\$97,919	3.0%
2008-2009	\$101,064	3.1%
2009-2010	\$104,333	3.1%
Total	\$493,194	

- Notes: 1) 2006-2007 Program cost is identical to 2005-2006 per contract terms.
2) Annual increase in cost reflects negotiated 4 percent per annum increase in labor rates.
3) 2005-2006 and 2006-2007 Program costs are for the existing Scope of Work.

Jurisdiction	Shoreline (miles)	% of Total	2007-2008	2008-2009	2009-2010
Carlsbad	6.5	14.90%	\$14,590	\$15,059	\$15,546
Coronado	3.1	7.10%	\$6,952	\$7,176	\$7,408
Del Mar	3	6.90%	\$6,756	\$6,973	\$7,199
Encinitas	5.8	13.30%	\$13,023	\$13,442	\$13,876
Imperial Beach	2.7	6.20%	\$6,071	\$6,266	\$6,469
Oceanside	3.6	8.30%	\$8,127	\$8,388	\$8,660
San Diego	17.3	39.80%	\$38,972	\$40,223	\$41,525
Solana Beach	1.5	3.50%	\$3,427	\$3,537	\$3,652
Total	43.5	100%	\$97,919	\$101,064	\$104,333

Option 3: Omit Fall Aerial Photos from Existing Scope of Work and Reduce Spring Reporting to that Required in Fall

Program Year	Cost	% Increase
2005-2006	\$94,939	
2006-2007	\$94,939	0.0%
2007-2008	\$95,628	0.7%
2008-2009	\$98,681	3.1%
2009-2010	\$101,855	3.1%
Total	\$486,041	

- Notes: 1) 2006-2007 Program cost is identical to 2005-2006 per contract terms.
2) Annual increase in cost reflects negotiated 4 percent per annum increase in labor rates.
3) 2005-2006 and 2006-2007 Program costs are for the existing Scope of Work.

Jurisdiction	Shoreline (miles)	% of Total	2007-2008	2008-2009	2009-2010
Carlsbad	6.5	14.90%	\$14,249	\$14,703	\$15,176
Coronado	3.1	7.10%	\$6,790	\$7,006	\$7,232
Del Mar	3	6.90%	\$6,598	\$6,809	\$7,028
Encinitas	5.8	13.30%	\$12,719	\$13,125	\$13,547
Imperial Beach	2.7	6.20%	\$5,929	\$6,118	\$6,315
Oceanside	3.6	8.30%	\$7,937	\$8,191	\$8,454
San Diego	17.3	39.80%	\$38,060	\$39,275	\$40,538
Solana Beach	1.5	3.50%	\$3,347	\$3,454	\$3,565
Total	43.5	100%	\$95,628	\$98,681	\$101,855

Option 4: Omit Fall Aerial Photos from Existing Scope of Work, Reduce Spring Reporting to that Required in Fall, and Omit Lagoon Condition Section and Data Products From Annual Report

Program Year	Cost	% Increase
2005-2006	\$94,939	
2006-2007	\$94,939	0.0%
2007-2008	\$93,429	-1.6%
2008-2009	\$96,394	3.1%
2009-2010	\$99,477	3.1%
Total	\$479,178	

- Notes: 1) 2006-2007 Program cost is identical to 2005-2006 per contract terms.
2) Annual increase in cost reflects negotiated 4 percent per annum increase in labor rates.
3) 2005-2006 and 2006-2007 Program costs are for the existing Scope of Work.

Jurisdiction	Shoreline (miles)	% of Total	2007-2008	2008-2009	2009-2010
Carlsbad	6.5	14.90%	\$13,921	\$14,363	\$14,822
Coronado	3.1	7.10%	\$6,633	\$6,844	\$7,063
Del Mar	3	6.90%	\$6,447	\$6,651	\$6,864
Encinitas	5.8	13.30%	\$12,426	\$12,820	\$13,230
Imperial Beach	2.7	6.20%	\$5,793	\$5,976	\$6,168
Oceanside	3.6	8.30%	\$7,755	\$8,001	\$8,257
San Diego	17.3	39.80%	\$37,185	\$38,365	\$39,592
Solana Beach	1.5	3.50%	\$3,270	\$3,374	\$3,482
Total	43.5	100%	\$93,429	\$96,394	\$99,477

Option 5: Do Not Exercise the Three One-Year Options Under the

San Diego Association of Governments
SHORELINE PRESERVATION WORKING GROUP

December 7, 2006

AGENDA ITEM NO.: **7**

Action Requested: APPROVE

REGIONAL BEACH REPLENISHMENT

File Number 3002800

Attachments related to this item include:

- Table 1 - Preliminary Cost Estimate
- Preliminary Time Line

TABLE 1
PRELIMINARY COST ESTIMATE
SANDAG SECOND REGIONAL BEACH SAND PROJECT
ASSUMING MATERIAL IS DREDGED AND PUMPED TO BEACH BY HOPPER DREDGE

ITEM NO.	ITEM DESCRIPTION	Assumed	RSBP#1		UNIT COST	SUBTOTAL
		Borrow Site	Final	QUANTITY		
(RSBP #1)						
Planning/Soft Costs - Assumed for Now to Be Similar to Previous Project With Escalation						
1	Additional Investigation of Offshore Sand Sources		1	LS	\$300,000	\$ 300,000
2	Preliminary Design (likely on the high end)		1	LS	\$200,000	\$ 200,000
3	Environmental Review (CEQA/NEPA)		1	LS	\$500,000	\$ 500,000
4	Resource Agency Permits		1	LS	\$350,000	\$ 350,000
5	Final Plans, Specs, & Engineering		1	LS	\$1,000,000	\$ 1,000,000
6	Pre and Post Project Monitoring (Biological, reduced for same project)		1	LS	\$250,000	\$ 250,000
7	Pre and Post Project Monitoring (Shoreline)		1	LS	\$600,000	\$ 600,000
8	Cost-Benefit Analysis (new task)		1	LS	\$40,000	\$ 40,000
9	Environmental Permit Contingency for Possible Unknowns (20%)		1	LS	20% of Prelim.	\$ 588,000
Total Prelim/Soft Construction Items (likely on the high end and may be able to be reduced)						\$ 3,528,000
Construction Costs						
1	Mobilization & Demobilization		1	LS.	\$2,500,000	\$ 2,500,000
2	Oceanside Beach	SO7	420,000	CY	\$7.01	\$ 2,943,365
3	N. Carlsbad	SO5	225,000	CY	\$9.01	\$ 2,026,713
4	S. Carlsbad	SO7	160,000	CY	\$5.54	\$ 886,943
5	Batiquitos	SO7	118,000	CY	\$5.04	\$ 595,107
6	Leucadia Beach	SO7	130,000	CY	\$5.33	\$ 692,777
7	Moonlight Beach	SO7	103,000	CY	\$5.58	\$ 574,649
8	Cardiff Beach	SO6	104,000	CY	\$4.72	\$ 491,206
9	Fletcher Cove	SO5	140,000	CY	\$5.96	\$ 833,968
10	Del Mar	SO5	180,000	CY	\$5.29	\$ 952,218
11	Torrey Pines	SO5	240,000	CY	\$5.79	\$ 1,389,651
12	Mission Beach	MB1	150,000	CY	\$5.26	\$ 788,642
13	Imperial Beach	MB1	120,000	CY	\$9.36	\$ 1,123,026
14	Construction Contingency		1	LS.	25% of constr.	\$ 3,949,566
15	Construction Management		1	LS.	7% of constr.	\$ 1,105,878
16	Construction Survey or Inspection		1	LS.	3% of constr.	\$ 473,948
Total Construction Costs						\$ 21,327,657
GRAND TOTAL ALL ITEMS			2,090,000			\$ 24,855,657

ASSUMPTIONS:

- This cost estimate is for a duplicate project to the 2001 RBSP using the same borrow site and receiver site arrangements. However, it is unknown if all of the borrow sites (e.g., SO-7) can provide the volume of sand needed, and therefore, further offshore explorations are required. These exploration costs are included as Item 1.
- Pre- and post-project biological monitoring costs are assumed to decrease significantly from the 2001 RBSP. The level of monitoring will be less if the project is identical to the 2001 RBSP, but requirements need to be further defined. Monitoring includes that for beach profiles and limited marine biology before construction, turbidity monitoring during construction, and beach profiles and limited biology for approximately 5 years after construction.
- Dredging and Pumping includes land equipment for building the beach profile.
- Costs for permits and environmental review assume an Environmental Impact Report (CEQA) and Environmental Assessment (NEPA) are required, as were required for the 2001 RBSP project with similar costs escalated for 2008 dollars.
- The cost of final engineering is a rough estimate from the 2001 RBSP and needs verification, but the level of effort should be similar or less for an identical project.

PRELIMINARY TIME LINE

	TASK	SCHEDULE (number of months prior to construction)
1.	Identify and allocate funding sources	30 months
2.	Cost-benefit analysis	30 months
3.	Request for proposals – environmental and construction	26 months
4.	Feasibility and preliminary design	22 months
5.	Prepare and complete environmental documents	20 – 12 months
6.	Local, state, and federal permits	10 – 7 months
7.	Pre-construction monitoring	6 months
8.	Project mobilization	2 months
9.	Project construction	0 months
10.	Post-construction monitoring	Continuous up to 5-years after construction