



# MEETING NOTICE AND AGENDA

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

## SHORELINE PRESERVATION WORKING GROUP

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

Thursday, June 4, 2015

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

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

Staff	Katie Levy	Keith Greer
Contacts:	(619) 699-7312	(619) 699-7390
	katie.levy@sandag.org	keith.greer@sandag.org

*Beginning in February, the parking garage elevators at Wells Fargo Plaza will undergo a six month mechanical modernization. During this period, only one garage elevator will be in service. Please allow yourself extra time to make your way up from the garage to the SANDAG offices and Board Room. For those requiring special assistance, please call the SANDAG front desk in advance of any meetings at (619) 699-1900.*

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## AGENDA HIGHLIGHTS

### • REGIONAL SHORELINE PROGRAM ANNUAL REPORT

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# SHORELINE PRESERVATION WORKING GROUP

Thursday, June 4, 2015

ITEM NO.		RECOMMENDATION
1.	WELCOME AND INTRODUCTIONS	
2.	<b>PUBLIC COMMENTS/COMMUNICATIONS</b>  Members of the public shall have the opportunity to address the Shoreline Preservation Working Group (Working Group) on any issue within the jurisdiction of SANDAG that is not on this agenda. Anyone desiring to speak shall reserve time by completing a "Request to Speak" form and giving it to the meeting coordinator prior to speaking. Public speakers should notify the meeting coordinator if they have a handout for distribution to working group members. Public speakers are limited to three minutes or less per person. Working Group members also may provide information and announcements under this agenda item.	
+3.	<b>APPROVAL OF MEETING MINUTES</b>  The Working Group is asked to review and approve the minutes from its March 5, 2015, meeting.	APPROVE
<b>REPORTS</b>		
4.	<b>REGIONAL SHORELINE PROGRAM ANNUAL REPORT</b>  Greg Hearon, Coastal Frontiers Corporation, will provide the Working Group with a presentation on the 2014 Regional Shoreline Monitoring Program Annual Report.	INFORMATION
5.	<b>UPCOMING MEETINGS</b>  The next meeting of the Working Group is scheduled for Thursday, September 3, 2015, from 11:30 a.m. to 1 p.m.	INFORMATION
6.	<b>ADJOURNMENT</b>	

+ next to an agenda item indicates an attachment

**San Diego Association of Governments**  
**SHORELINE PRESERVATION WORKING GROUP**

June 4, 2015

AGENDA ITEM NO.: **3**

**Action Requested: APPROVE**

MARCH 5, 2015, MEETING MINUTES

File Number 3200200

The meeting of the Shoreline Preservation Working Group (Working Group) was called to order by Supervisor Dave Roberts (County of San Diego), Chair of the Working Group, at 11:33 a.m.

**1. WELCOME AND INTRODUCTIONS**

Supervisor Roberts gave a brief description of the goals and membership structure of the Working Group.

The attendance sheet for the meeting is attached.

**2. PUBLIC COMMENTS AND COMMUNICATIONS**

Steve Aceti of the California Coastal Coalition (CalCoast) announced that there will not be a 2015 Headwaters to Ocean Conference. Instead, a multi-agency led workshop discussing sea level rise (SLR) and climate change will be held on May 26, 2015, to May 28, 2015, at the Bahia Resort Hotel. This workshop will have the input of experts across many agencies in the field; those hosting the event include CalCoast, League of California Cities, Coastal Cities Issues Group, and the University of Southern California (USC) Sea Grant, among others. The workshop is in response to many planners and managers not knowing how to incorporate predicted SLR into general plan updates and environmental impact reports (EIR). This workshop will attempt to provide a clear understanding of what is required with laws pertaining to climate change.

**3. APPROVAL OF MEETING MINUTES (APPROVE)**

Councilmember Dwight Worden (City of Del Mar) commented that as a new member of the Working Group, he appreciates the detailed minutes.

Councilmember Worden motioned to approve the May 1, 2014, meeting minutes and Commissioner Garry Bonelli (Unified Port of San Diego) seconded the motion.

The Working Group approved the May 1, 2014, meeting minutes unanimously.

Action: Yes: Supervisor Roberts (City of San Diego), Councilmember Lorie Zapf (City of San Diego), Councilmember Lorraine Wood (City of Carlsbad), Councilmember Bill Sandke (City of Coronado), Councilmember Dwight Worden (City of Del Mar), Mayor Lisa Shaffer (City of Encinitas),

Commissioner Garry Bonelli (Unified Port of San Diego), Walter Wilson (U.S. Navy). No: None. Abstain: None. Absent: City of Imperial Beach, City of Oceanside, and City of Solana Beach.

## **REPORTS**

### **4. COASTAL STORM MODELING SYSTEM (INFORMATION)**

Dr. Patrick Barnard (United States Geological Survey [USGS] Pacific Coastal and Marine Science Center) presented the agency's numerical modeling system for predicting coastal flooding due to SLR and storms driven by climate change, the Coastal Storm Modeling System (CoSMoS). This system also would provide a consistent methodology for the state to research, and therefore, react to climate change. Currently, different methods and approaches are used across California, making it difficult to compare management decisions to alleviate impacts at local and state levels.

Dr. Barnard displayed historical data through a map depicting the changes in global temperature since the late 19th century, illustrating that the climate has been getting, and is continuing to get, warmer. This warming trend has resulted in the rising of sea levels, which have been predicted to continue to rise at an accelerating rate. Dr. Barnard noted that there are those within the scientific community that believe sea levels will continue to rise in the next 100 years despite any changes in greenhouse gas emissions today.

Dr. Barnard described the effect of SLR and increased storm frequency on coastal communities. Previous projections show serious amounts of coastal flooding and increased storm frequency and magnitude, causing alarming economic threats to coastal communities. An estimated 10,000 people are expected to be displaced and \$2 billion in property damages is forecasted for San Diego County from SLR alone. This estimate does not include potential effects from fluvial changes, storms, and increased wave magnitude. Other issues that could arise include accelerated beach erosion, cliff failures, navigation issues, and saltwater intrusion of freshwater drinking supplies. Dr. Barnard stressed that Southern California is currently very vulnerable to impacts from SLR, with respect to both private and critical public infrastructure.

It was explained that previous models for projecting effects of climate change, such as the National Oceanic and Atmospheric Administration's (NOAA) SLR Viewer, only show limited effects from occurrences such as tide changes and SLR. The USGS Pacific Coastal and Marine Science Center wanted to create a model that incorporated a more comprehensive spectrum of effects, thus providing more accurate projections of coastal changes caused by climate change. The system works by down-scaling a deterministic model of relative physics and climate at a global level, to a regional level by considering factors such as ocean circulation, plate tectonics, and isostasy. This regional level can then be analyzed on a local level by incorporating factors such as fluvial discharge and sediment supply, local winds, tides, and atmospheric pressure. The model is scaled down to the point of seeing detailed impacts at about six or seven square feet. Though previous models are not extremely specific, they can still help identify areas that are most vulnerable, assisting city managers by informing which areas require immediate attention.

Dr. Barnard showed comparisons between the two models by illustrating the projected impacts on specific coastlines. The dynamic CoSMoS approach predicted a much larger amount of flooding and water elevations than the NOAA model. The CoSMoS model has become more inclusive over the years, and was recently used to help create the "Our Coast-Our Future" tool developed by Point

Blue Conservation Science. This viewer allows the user to combine a variety of coastal storms and SLR of different magnitudes to see their predicted effects on the San Francisco Bay Area. The viewer also allows the option of including the uncertainty layer, which is often the worst-case scenario. The spatial files for both geographic information system and Google Earth are available for download.

In order to relate these models to actual management and community responses, Dr. Juliette Hart of USC presented the USC Sea Grant Project, which does community outreach, ocean science, and provides technical support to Southern California with respect to water quality issues and climate change. A webinar series will be held March 17, 2015, at 11 am, hosted by Dr. Ron Flick (Scripps Institution of Oceanography) describing beach dynamics and ecology. Additional webinar series will be offered in the future, including legal, economic vulnerability, and a wide range of options for planning for SLR. To attend a webinar, individuals must register online at [adaptlawebinar-beaches.eventbrite.com](http://adaptlawebinar-beaches.eventbrite.com). An Initial process workshop was hosted on October 30, 2014, to discuss initial findings from the projected models and suggest possible management responses. A more detailed technical workshop will be held at a later date as the model continues to develop. Interested individuals are encouraged to contact Dr. Hart at [jahart@usc.edu](mailto:jahart@usc.edu) or by phone at (424) 241-2457.

Mayor Lisa Shaffer (City of Encinitas) asked if this model would recommend a land use change for areas impacted, or if it just showed physical changes. Dr. Barnard responded that the current model just shows physical changes caused by impacts, but the desire is to eventually be able to provide management guidelines for land use changes. Mr. Aceti stated that these management techniques and responses are going to be discussed at the SLR and climate change workshop later in May.

Future and current applications of the model, with respect to regional and city planning and management, were discussed. Comments provided on the CoSMoS model included the potential mitigated effects of continued beach nourishment, the severity of shock that this model will generate to the public, and the importance of creating adaptive management techniques to mitigate impacts from SLR. Advisory members urged the Working Group members to thoroughly consider all options of preserving the natural coastline before constructing physical barriers such as seawalls. Advisory members also mentioned that they are pleased to see that city representatives are looking at SLR as a serious issue.

## 5. UPDATE ON SAN ELIJO LAGOON RESTORATION PLANNING (INFORMATION)

Mr. Doug Gibson (San Elijo Lagoon Conservancy) suggested that one of the best defenses against impacts from climate change is the resiliency of coastal wetlands, such as the San Elijo lagoon. Mr. Gibson explained the importance of a healthy functioning lagoon, and mentioned that even though the San Elijo Lagoon looks beautiful and healthy on the surface, there are serious water circulation issues that exist.

Mr. Gibson briefly described causes of current issues with the lagoon such as infrastructure surrounding and traversing the lagoon, residential developments surrounding the lagoon, and high levels of nutrients in sediment from past uses, among others. This surrounding development has resulted in the frequent closing of the lagoon's inlet. In order to maintain the health of the lagoon, inlet excavation must occur each year. Mr. Gibson explained that freshwater needs to be able to flow out of the lagoon, while tidal saltwater needs to be able to flow into the lagoon.

Mr. Gibson stated that the goal of the San Elijo Lagoon Conservancy is to remove physical embankments and impairments in order to fix the hydrology of the lagoon, thus preparing the system for increasing sea level scenarios and the potential to mitigate serious impacts over the next 50 years. The current plan for the lagoon's restoration is undergoing the review stages before finalizing the public EIR, in which four alternatives are being developed. Mr. Gibson described that it is very complicated to decide the exact method for restoration, as the lagoon is used by endangered species and for recreational purposes. This restoration will be the first coastal wetland designed with SLR mitigation in mind, thus providing a wealth of new opportunities for increased resiliency. For instance, the lagoon could be designed in a method that will provide "stepping stones" for species to move as lower levels of the lagoon start to transition from increased water levels.

Activities involved in restoration would reconfigure the lagoon, bring back functioning mudflats, modify the water flow, and create a circulation pond that would mimic a healthy system, while leaving the current habitat in place. Planning for the San Elijo Lagoon restoration has occurred in preparation for potential funding from the regional North Coast Corridor Public Works Plan and Transportation and Resource Enhancement Plan, which will be widening the Interstate 5 (I-5) freeway bridge across the lagoon from 40 meters across to 80 meters, allowing for better water circulation.

Mr. Gibson briefly explained two of the proposed alternatives, and their associated benefits and shortcomings. Alternatives vary, but most consider the wider opening under the I-5 freeway, management of either the current inlet or the creation of a different inlet, and the dredging of a direct channel to better connect the system to tidal flows. Sand accumulated from the dredging is estimated to result in 1 million cubic yards of beach quality sand and can be used for beach nourishment. Once the EIR is complete, the alternative that does the best environmental job and is approved by the resource agencies will be selected.

Next steps include finishing and releasing the EIR for public review, receiving a record of determination and proper permits, and finalizing design plans. The regional approval of this plan will be presented to the SANDAG Board of Directors linked with the Construction Manager/General Contractor responsible for constructing the rail and highway portions traversing the lagoon in order to secure necessary funding. Upon receipt of necessary permits, restoration could begin in early 2016.

Walter Wilson (U.S. Navy) questioned if an alternative included creating two inlets in order to let the lagoon best connect with the ocean, but Mr. Gibson explained that two inlets would actually result in decreasing the velocity and scouring necessary for channels of the lagoon. The Working Group then discussed the importance of working closely with coastal cities on current and future ecological restorations and infrastructure designs with respect to SLR. The feasibility of receiving approval for more invasive yet potentially necessary coastal preservation projects from regulatory agencies such as the California Coastal Commission also was discussed.

Marco Gonzalez (Coastal Environmental Rights Foundation) stated that there is an interesting dichotomy in the project, in that the factor that is likely causing the sea level to rise, being transportation and its associated emissions, is now a necessary component in the restoration of this lagoon, as it is linked to the I-5 bridge widening.

The Working Group then discussed fiscal realities and options of this and future restoration and mitigation needs, such as the Coastal Vehicle Mitigation Fund and *TransNet* funds.

6. SHORELINE MANAGEMENT "101" (INFORMATION)

This agenda item was unable to be presented due to time limitations of the Working Group meeting. New members and alternates were encouraged to reach out to Katie Levy (SANDAG) individually if they have any questions about the SANDAG history, strategy, and management plan for regional shoreline management.

7. UPCOMING MEETINGS (INFORMATION)

The next meeting of the Working Group is scheduled for Thursday, June 4, 2015, from 11:30 a.m. to 1 p.m.

8. ADJOURNMENT

Supervisor Roberts adjourned the meeting at 12:57 p.m.

**SHORELINE PRESERVATION WORKING GROUP  
 MEETING ATTENDANCE FOR March 5, 2015**

JURISDICTION/ORGANIZATION	NAME	ATTENDING
County of San Diego	Supervisor Dave Roberts, Chair	Yes
City of San Diego	Councilmember Lorie Zapf, Vice Chair (Primary)	Yes
	Council President Sheri Lightner (Alternate)	No
City of Carlsbad	Councilmember Lorraine Wood (Primary)	Yes
City of Coronado	Councilmember Bill Sandke (Primary)	Yes
	Councilmember Richard Bailey (Alternate)	No
City of Del Mar	Councilmember Dwight Worden (Primary)	Yes
City of Encinitas	Councilmember Lisa Shaffer (Primary)	Yes
	Councilmember Tony Kranz (Alternate)	Yes
City of Imperial Beach	Mayor Pro Tem Brian Bilbray (Primary)	No
	Councilmember Robert Patton (Alternate)	No
City of Oceanside	Councilmember Esther Sanchez (Primary)	No
	Deputy Mayor Chuck Lowery (Alternate)	No
City of Solana Beach	Councilmember Mike Nichols (Primary)	No
	Mayor Lesa Heebner (Alternate)	No
San Diego Unified Port District	Commissioner Garry Bonelli (Primary)	Yes
	Eileen Maher (Alternate)	Yes
United States Navy	Mitchell Perdue (Primary)	No
	Walter Wilson (Alternate)	Yes

ADVISORY MEMBERS LISTED BELOW (ATTENDANCE <b>NOT</b> COUNTED FOR QUORUM PURPOSES)		
California Coastal Commission	Lee McEachern	No
National Marine Fisheries Service	Bryant Chesney	No
State Dept. of Boating & Waterways	Steve Watanabe	No
State Dept. of Fish and Wildlife	Loni Adams	Yes
State Lands Commission	Jane Smith	No
U.S. Army Corps of Engineers	Heather Schlosser	No
California Coastal Coalition	Steve Aceti	Yes
California Lobster and Trap Fisherman's Association	August Felando	No
Coastal Environmental Rights Foundation	Marco Gonzalez	Yes
Scripps Institution of Oceanography	Michele Okihiro	Yes
Southern California Tribal Chairmen's Association	Vacant	N/A
Surfrider Foundation	Julia Chunn-Heer	Yes

**Other Attendees:**

Vince Axelson, Axelson & Corn, P.C.  
 Patrick Barnard, United States Geological Survey (USGS)  
 Dani Boudreau, Tijuana River National Estuarine Research Reserve (NERR)  
 Julia Fiedler, Scripps Institution of Oceanography (SIO)  
 Doug Gibson, San Elijo Lagoon Conservancy  
 Juliette Hart, USC Sea Grant  
 Cindy Kinkade, AECOM  
 Leslea Meyerhoff, City of Solana Beach  
 Mel Millstein, County of San Diego  
 Jim Nakagawa, City of Imperial Beach  
 Tima Gallien, Scripps Institution of Oceanography (SIO)  
 Chris Webb, Moffat & Nichol  
 Kathy Weldon, City of Encinitas

Katie Day, SANDAG  
 Keith Greer, SANDAG  
 Katie Levy, SANDAG  
 Rob Rundle, SANDAG