



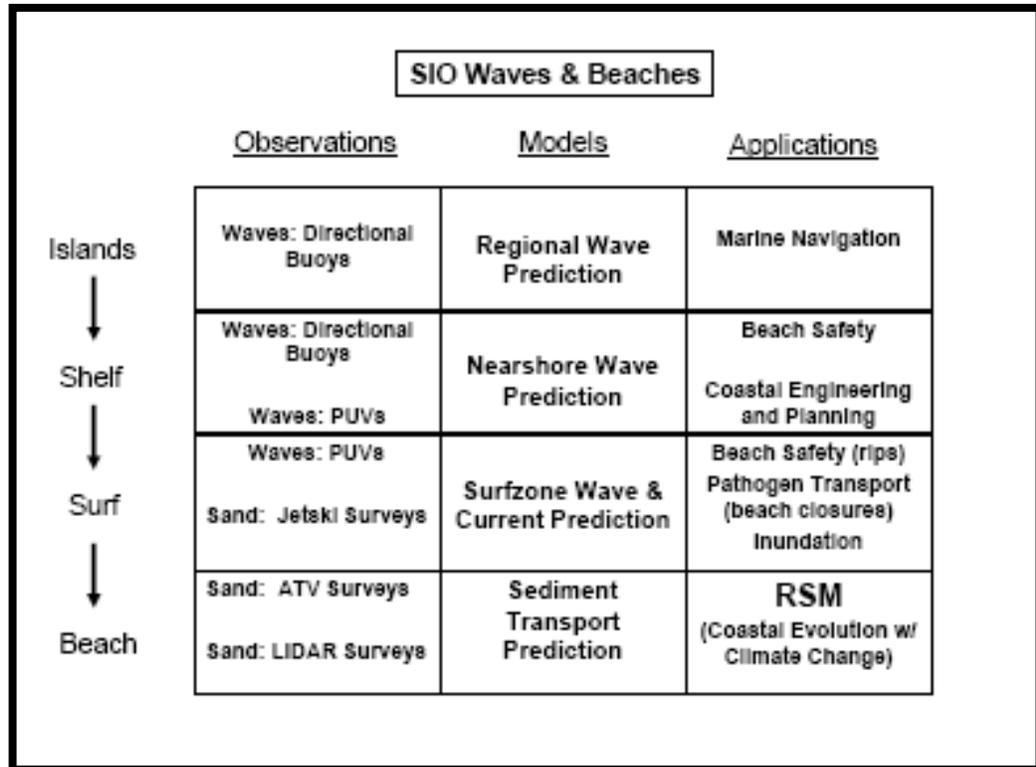
**CSMW Meeting  
SCRIPPS – La Jolla, CA  
May 20, 2008**

❖ **Introductory Comments – Overview of RSM Program**

- George gave an overview of the Corps' National RSM Program

❖ **CDIP – Bill O'Reilly, Julie Thomas, Bob Guza**

- Measuring waves and sand levels in San Diego County for about 6 years  
– led to development of a state-wide monitoring approach
- CDIP MOP Program
- CDIP started in 1975
  - 14 people, \$2.5M yearly budget
  - 170 km beach monitoring
  - 30+ wave stations
  - Original mission to monitor and predict coastal waves and beach change
- Datavell Directional Waverider – designed to act like a wave particle
- Sand Monitoring – since 2002
  - LIDAR, ATV, dollies, JetSkis
- Linking wave and sand monitoring.....
- Move from observations to models to applications and you also move from islands to shelf to surfzone to the beach (see figure below)
  - Beach area and applications requires the most work, but allows you to make better RSM decisions
- Swell model – uses all of the wave data collected in order to have a better prediction of wave height
  - Important tool to have in order to better predict sediment transport
- Navigation purposes – working with Ports of LA/Long Beach to give them a customized website that integrates the CDIP waves with the SCCOOS HF Radar Surface Currents



- Nearshore Circulation Study in Huntington Beach – results were used to validate the swell model
- Mean alongshore current prediction model – Falk, Scripps researcher has developed this model using results from swell model – model does show flow reversals
- Monitoring-based Beach Change Predictions at Torrey Pines
  - Using a model to predict beach change – with 2 years of data
  - Uses the relationship between beach profile evolution and waves – waves “act” differently depending on the shape of the beach profile
  - Model is “portable” if you have the profile data at your specific location
  - Need to have locations of bedrock
  - What happens after a storm passes is very important – does the beach have a chance to recover before the next storm?
- Oceanside Littoral Cell – looked at the “River of Sand”
  - Just south of every lagoon mouth or creek bed, there tends to be wave focusing hot spots (according to the radiation stress values – essentially it’s a measure of the alongshore current)
    - Sand slows down at these areas, but is then taken offshore
    - This sand can be “seen” offshore when looked at the offshore bathymetry – theory is that the deposited sediment is out of the littoral zone
      - SANDAG used some of this deposits in their last Sand Project



- How do you use this to predict where you should place sediment?  
Working on the Coastal Lagoon littoral sub-cells model – RSM
  - Use to identify hot spots and place sediment south of the hot spot
- Dataset does not include El Nino years
- Point is that it looks like in “normal” years, all of the sand does not move past the lagoon. NEED MORE DATA
- Indicates that sediment coming from coastal cliffs is more important than sediment coming from rivers (at least in a non-El Nino year)
- CDIP Waves and Sand – Monitoring and Prediction (MOP) System
  - Includes Wave monitoring, Surfzone Monitoring (select sites – JetSkis), and Beach Monitoring (LIDAR, ATV surveys)
  - Divided the CA coast into MOP polygons (100 m spacing) – with MOP wave prediction sites in the center of the polygons
  - CDIP website will eventually allow you to choose a MOP site and look at the wave prediction info
- MOP Coastal Inundation (beta study at Point Mugu)
  - For specific locations, make “potential” flooding maps
- MOP Sandboxes – for each box, predict changes in sand levels
- MOP Program Goals (Michele is coordinator)
  - *Sustainable* State-wide Monitoring and Prediction of Coastal Waves and Shoreline Change
  - *Expanded* support of fundamental research using MOP monitoring data
  - *Formal* and *Routine* communication with coastal engineers and decision-makers
- Future for MOP
  - Applied for 2 years of seed money from DBW – San Diego County MOP-RSM Demo
  - Cooperative Agreement with USGS
    - Southern CA Coastal Hazards Project
- MOP-RSM Synergies
  - Monitoring:
    - USGS and Naval Post Graduate School – Nearshore Sand Survey Teams
  - Prediction:
    - Coastline Evolution – Climate Change Initiatives?
  - Policy:
    - CALOST (CA Ocean Science Trust) – CA wave and sand monitoring enterprise?
    - OPC – Tri-State Collaboration?

❖ **Master Plan Update**

- Skipped this item due to time constraints - See PM Report (Page 8) for update



❖ **Surfing and Coastal Sediment Management – Surfrider (Mark R)**

- Founded in 1982
- Global Headquarters in San Clemente
- 80 local chapters – staffed by volunteers
- Technical issues – interact with HQ
- Look at coastal issues in general
- Beach Act is coming up for renewal
- Involved with MPAs (Marine Protected Areas)
- State of the Beach Report – produced by Surfrider – rank coastal programs around the country – Coastal Management issues are their speciality
- Could help communicate management decisions to the public

❖ **SANDAG RSM Plan – Andrea Groves (SANDAG) and Chris Webb**

- Shoreline Preservation Strategy – adopted in 1993
  - Emphasizes beach sand replenishment
  - Proposes beach building and maintenance to protect/restore regional beaches
  - 2001 Sand Project was \$17.5M
    - 1<sup>st</sup> step in implementing a long-term program
- Want tangible actions to come out of the project
- Have not taken any possibilities off the table yet
- Small scale actions that could lead to big results
- Craig Everts calculated the amount of sand needed to create 200' wide beaches – quantity in the 90s was 30MCY
- Receiver Site – includes profile area from +12' to about -30' – looking at appropriate locations to place various types of sediment within this defined receiver site
  - Producing a database of grain sizes along San Diego County
  - Looking for potential sites that could essentially receive an infinite amount of sediment
- Habitat Concerns
  - Beaches are habitat (grunions, shorebirds, etc)
  - Sedimentation – maintaining sensitive habitats
  - At each site – looked at potential environmentally sensitive areas (nesting locations, wintering locations, reef locations, surfgrass, kelp canopy, etc) – these may need sediment as well as the need to avoid or limit impact
  - Long placement sites are beneficial because you can limit impact in certain areas
  - Important to have sites located near lagoons – helps facilitate maintenance of lagoons
  - Including nearshore sites – can accept siltier sediment
- Identifying all potential sources of sediment – in a database with quantities, potential schedule of availability



- How do you make moving sediment from inland sources economical?
  - Placement sites near highways are more economical
- Tried to determine the target of sediment that is needed to reach SANDAG's goal of 30MCY
  - Estimated that 400,000 CY is completely dispersed and lost yearly
  - Adding 1MCY/yr would offset the 400,000 CY that is estimated to be lost per year
  - Would reach the 30MCY in 50 years
  - Opportunistic sites could supply 700,000 CY per year (includes SCOUP sites)
- Look at grain size to then determine placement quantity and location along the beach profile
- Can you augment or "treat" less than desirable grain sized sediment
- Retention measures could reduce the needed volume
- Megan Johnson – is the plan trying to reconnect natural sediment pathways?
  - Not necessarily because the plan is trying to minimize costs of placement
- Anyone have a good contact with Camp Pendleton? Would like to approach them about taking sediment from the nearshore and depositing it south of Oceanside Harbor
- Imperial Beach Pier – make into a groin?
- Oceanside – good location for testing the mixing of different grain sizes for placement
- Any potential structures – would need to pre-fill the beach so that you don't "take" sand from the beaches downcoast
- Has consideration been given to the width of the natural shoreline (in other words not all of these beaches had wide beaches)
  - Shoreline Preservation Strategy is to preserve the volume of sediment within the system rather than just looking at beach widths

❖ **LIDAR/Sea Level Rise - Lesley Ewing**

- How will this affect state coastal resources?
- Looking for a good map/ data sources that will look at inland resources in zone (~15-60 inches elevation) potentially inundated from sea level rise  
**Should this be supported by CSMW?**
- Corps LIDAR/ JABLCTX (Jennifer Wozencraft) – 500m inland - can the state pay for the inland portion? Looking at going 6-10m in elevation
- Set up QA/QC guidelines for the collection of LIDAR data
- Scripps has tried to get funding for a LIDAR center to collect data for CA
- **Sub-committee for LIDAR center ideas?? Talk with Dick Seymour**

❖ **State Legislative Update**

- Federal Update: Energy and Water markup on the House side in June – then there will be a halt on federal funding until after the election



- \$500K from NOAA to “Thank You Ocean” campaign – matched with state funding



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## SMP PROJECT MANAGERS REPORT CSMW

May 20, 2008

### Coastal RSM Plans:

1. AMBAG- Draft Report submitted to AMBAG and CSMW for review, and PWA presented on the draft report to a joint meeting of Southern Monterey Bay Erosion Control Workgroup/CSMW. I provided comments to Brad Damitz of MBNMS who is coordinating AMBAGs technical review. Additional presentation to AMBAG Board of Directors was made on May 14. PWA incorporating review comments, and I will be coordinating with SMBECW on how to address Cities of Monterey and Sand City initial comments as well as incorporate CRSMP into the Sanctuaries Alternatives Evaluation. A public meeting to discuss the revised Plan will be scheduled near the end of June.
2. SANDAG- an environmental technical workshop was held in on April 3, to discuss how Plan elements such as potential nearshore placement locations were affected by biological resources. An annotated outline of draft report was received and commented on. Chris Webb and Andrea Groves (filling in for Shelby Tucker while she studies for the State Bar) will give overview of the Plan in today's meeting.
3. BEACON- Draft recommendations of strategies for Beacon to collaborate with other agencies, pursue funding, streamline/enhance existing programs and influence wise management of coast were advanced by Noble consultants, as was a list of potential projects that included those in progress as well as others that could prove beneficial to the region. A meeting to discuss the strategies and potential projects was held on May 5, and additional direction was provided to the consultant team at that time.

### Tijuana Estuary Sediment Study (TESS)

1. Significant efforts were conducted to obtain letters of support for the project from SANDAG (and all member coastal cities), BEACON, CMANC, USEPA, County of San Diego, Imperial Beach. USGS, Scripps, and CalCoast also provided letters of support.
2. Project meetings were held to kick off the permitting effort and make sure the project schedule addressed needed efforts in time to have the project underway by October 2008.
3. USGS partners began collecting offshore baseline conditions starting in early May.
4. On May 15, the Ocean Protection Council agreed to fund that part of the project related to movement and placement of the sediment and biological monitoring during and post project construction. DBW has funded the pre-project and project costs related to monitoring of the fines transport (with in-kind support from USGS covering their staff costs) and SCC has funded development of the project description and permitting efforts. State Parks is Project Lead and SWIA (Southwest Interpretive Association) is the local non-profit administering the OPC grant on behalf of the project team.

### GIS/IMS

1. A contract between DBW and CERES for CERES to host/maintain the server has been completed and the server has been obtained. Issues associated with CERES installing and managing the DBW-owned server have been resolved.
2. I am currently waiting to hear back from CERES as to the availability of the person who will handle the actual installation and setup of the server, with assistance from John Carotta. Based on previous estimates of how long it might take to get on his schedule, we are probably 1-2 months away from initiating the setup.
3. John has been working on developing the viewer using ESRI's new operating platform GISServer. Moving to the new platform was a condition of acceptance by CERES to host the website. It was originally understood that the viewer would be available from Department of



Fish and Game, however they were unable to devote resources to its development. Accordingly, John has been building the viewer from the ground up, utilizing a number of different softwares needed to interface with the new platform. Once completed, the new system should support CSMW's GIS efforts for some time.

4. Mike Tuck, our student assistant, has been working on data quality improvements in addition to his CSBAT efforts. In particular, he is working to link our two major road and highway layers together.
5. San Francisco District will be implementing eCoastal soon in their District. More news to follow on how this might benefit the Sediment Master Plan.

#### Coastal Sediment Benefits Analysis Tool (CSBAT)

1. Mike and John produced the transportation network for application of the CSBAT tool to the Monterey region. This included roads, railroad, and barge lines that were developed in-house. The completed network was provided to PWA who then added data related to the specific receiver and source sites.
2. PWA initially were getting erroneous values when they ran the model so they requested help. After examining their files, it was determined that negative values in their 'depth' field were causing the problem. We notified them, they sent their thanks and we have not heard of any further problems with the Monterey effort.
3. LAD reports that there are still some glitches with the tool. They are working on identifying all of those and getting back to Everest.
4. LAD will host a meeting for interested parties soon.

#### CSMW Website

1. The website has a new look. In accordance with State of California guidelines, we have moved to a standardized color and layout scheme, utilizing a 3-column layout with tabs at the top of the page to make movement within the website easier and more intuitive.
2. We have identified and reconnected several dead links (e.g., RGP 67, MND)
3. We added a link on the Homepage to an "Ongoing Activities" page describing CSMW activities currently in progress. Completed tools and reports are identified and available on the home page as well as from the Library

#### Coastal References Database

1. CGS is hiring a student assistant to specifically conduct the data entry efforts. The previous student assistant (Mike Tuck) is focused on data quality improvements to the GIS database while John works on development of the GISServer viewer and operating platform.

#### Biological Impact Analysis Report (aka Review of Biological Impacts Associated with Sediment Management and Protection of California Coastal Biota)

1. Comments from all additional reviewers requested by CSMW have been obtained, with the exception of Department of Fish and Game.
2. Comments received from Brad Damitz of the Monterey Bay Sanctuary indicated that the report would be of great assistance to him and the Sanctuary as they looked for ways to appropriately conduct erosion control activities within the Sanctuary.

#### Submarine Canyons Sand Capture Paper

1. Comments have been received from Clif, USGS, Jim Haussener and the Corps. LAD will be compiling those and discussing with Moffatt-Nichol. If folks are interested we can have a conference call for interested parties.



### Environmental Documents for RSM Plans

1. LAD has identified Corps contacts from Regulatory. They will set-up a conference call to discuss what would be a useful approach for the RSM Plans - EIS/EIR, EA, or Programmatic EIS/EIR.
2. Need to identify any other regulatory agencies whose needs we should specifically address as part of this effort.
3. We are developing a generalized Scope of Work to fund contracts to conduct the environmental work in the BEACON and AMBAG regions (LAD is funding the SANDAG effort), once the Coastal RSM Plans have been approved and adopted.

### California Beach Restoration Survey (CBReS)

1. CSMW members and co-chair met with State Parks to discuss the latest version of the CBReS report in order to assess whether they could support the report going forward. The director indicated he felt the Report as proposed for augmentation would be satisfactory.
2. Still awaiting response from the Coastal Commission regarding a meeting to discuss the proposed enhancement of the report in order to determine whether their concerns with earlier versions have been addressed at a level to justify proceeding with construction of the next version.

### Policy, Procedures and Recommendation (PPR)- Recommendations White Paper

1. Still awaiting input from the PPR Recommendations subcommittee before preparing the next draft which would then need to be vetted with the Coastal Commission.