



**CSMW Meeting Minutes  
21 September 2011  
9:30 AM – 12:30 PM  
SF BCDC Offices  
50 California Street**

**STILL PENDING:**

- ✓ **Chris** – Will reconvene the PPR sub-committee to discuss the RSM Top Ten Recommendations. ONGOING
- ✓ **Susie/Heather** – Will reconvene the Corps' PPR sub-committee to discuss Federal actions. ONGOING – will following the general sub-committee meeting
- ✓ **Nate** – Check on progress of posting of JALBTCX LIDAR data to NOAA website so others can access. ONGOING – Northern SF Bay is available and all of Southern CA should be posted by fall.
- ✓ **Nate** – Conversion of USACE reference database for incorporation into CSMW's searchable Access Database. ONGOING – Corps Library can post to National Corps Library Website with link from CSMW site - Coordination with CERES ongoing.
- ✓ **Chris** – Add new agenda item for July meeting to have a discussion on disposal methodology (running into problems with disposal, particularly in the North Coast area) – ONGOING – Chris will add to Fall agenda
- ✓ **Brad or Phil King** Give a presentation on the economic analysis of the Southern Monterey Bay study – PENDING – Will be placed on Fall agenda.
- ✓ **Chris** – Follow-up with SWRCB regarding classification of clean sediments as pollutants in CA – ONGOING - Email exchange with George and Eric – will revisit in the Fall with a presentation.
- ✓ **Chris** – will make contact with the PIER group – Chris made contact and scheduled meeting. STILL PENDING
- ✓ **Susie/Heather** – talk with SPL and SPN Regulatory – STILL PENDING
  - Coordinate with the DMMT and DMMO – can we get more involved?
  - DMMT is concerned with the timeframe that they hear about Corps projects (too close to project time).
  - All projects (including Corps projects) must go through the DMMO, but that is not true with the DMMT.
  - Brian Ross thinks SPL Navigation needs to work more closely with SPL Regulatory.
  - DMMT Meetings held at same time as CSMW Meetings.
- ✓ **George Nichol** will look into the Noyo issue of inert vs. designated waste – STILL PENDING. It was noted that Orange County and Crescent City have experienced this issue and the CSMW Group agreed that the State Boards need to achieve consistency regarding material designation and that they should facilitate a discussion at a future CSMW Meeting (or externally) to see how different Boards handle sediment designation. **Brian Ross** will follow up with the State Board.
- ✓ **Chris** will follow up with George on West Coast RSM Authority – STILL PENDING.



- ✓ **Nate** contact Clif to confirm the status of Coastal Armoring Layer on Webmapper – ONGOING. Chris acquiring funding for Clif to work on this task.
- ✓ **Steve** Will send contact info for Solana Beach to ERG to include litigation examples. STILL PENDING.

### **COMPLETED ITEMS:**

- ✓ **Heather/Clif/Nate** –Humboldt Draft RSM Plan and the Draft Biological Impacts Analysis Reports uploaded to CSMW ftp site (requires login). – COMPLETED.
- ✓ **ALL** – Send examples of case studies for the NSMS to Chris by Wednesday, September 7<sup>th</sup> – COMPLETED.
- ✓ **Jim** – Sent ERG citation regarding Puget Sound case. COMPLETED.

### **NEW ACTION ITEMS:**

- ✓ **All** – Send comments on the BIA Reports and the Draft Eureka RSMP to Susie, Heather, or Nate by Oct. 12.
- ✓ **All** – Send Jim H. data/info for dredging activities at harbors/ports to be included in the low impact sustainable development matrix spreadsheet.
- ✓ **Chris** – Will set up a sub-committee to address Crescent City Marsh issues.
- ✓ **Chris/John Dingler** – confirm meeting place for next meeting.
- ✓ **All** – review/circulate EPA job announcement to interested parties.
- ✓ **All** – Send agenda recommendations for October meeting to Chris.

### ❖ **Welcome & Introductions – Brian Baird and George Domurat**

- Brian is leaving the CA NRA in October and today is his last meeting as part of the CSMW.

### ❖ **Review of Meeting Minutes from 8/30/11 – Nate West**

- Meeting minutes from 8/30/11 adopted.

### ❖ **Discussion: Focusing Sediment Management and Sustainable Communities Activities to Support Thriving Coastal Communities (Jim Haussener, CMANC)**

- The West Coast Governor's Agreement (WCGA) has several current action items, one of which is implementing and possibly combining RSM Plan recommendations from the 3 States.
- A meeting was held in Seattle recently, and it was decided that a listing of dredging activities for harbors and ports would be beneficial in identifying coastal communities most in need and most relevant regarding sediment use for supporting sustainability.
  - Jim is putting together list (provided at meeting) of dredging activities for Federal and Non-Federal harbors and ports to determine viability for sustainable development potential.
    - Send harbor/port data to be included to Jim.
  - Question that needs to be answered is what is the local importance of harbor activities on sediment supply and potential for development impact.
  - Want to develop matrix of high value harbor/port activities for low impact development.

*Comment:* Dredging needs/problems by location/region should be identified. Funding needs of harbors should be as well. Recommend adding a column in the matrix.

*Comment:* The Corps is developing a team of 6-8 people for prioritization of low use harbors Nationally, which should provide insight as well.

*Comment:* Whether there is an RSM Plan that already covers a harbor is very important and biological issues impacting dredging should be identified/quantified.

❖ **Presentation and Discussion: Crescent City Marsh (Brian Ross, USEPA and Ed Keller, USACE)**

- The Crescent City Marsh lies Northeast of Highway 101 near the Crescent City Harbor and has experienced loss of flow and tidal flushing, which has negative environmental effects within the wetland.
- Due to the drainage problems at the Marsh, placement of material dredged from the Harbor on the beach paralleling the Marsh has been recently discontinued, in lieu of placing the sand in the open ocean (Hoods site 75 miles away).
  - ISSUE: Can we still place sediment at the beach beneficially without negative environmental impacts?
- Recent tsunami increased berm elevations at Beach, thus decreasing potential for tidal flow through the three culverts running under the highway to the ocean.
- Harbor recently dredged ~100,000 CY (80% sand) and disposed at Hoods site – this could possibly have been used beneficially.
  - In the past, material has been placed on Whalers Island as beneficial reuse but not efficient this time due to Clam shell dredge issues.
  - In permitting phase for beach placement, discovered issues with Crescent City Marsh regarding drainage on the backside of the Marsh.
  - Cost of dredging is very expensive (\$18/CY).
- Water quality issues are endangering plants in the Marsh as well.
- Bob Sullivan with DFG is the land owner of the Marsh and Dave Imper (FWS) is the hydrology specialist.
  
- Ed Keller is the Environmental PM for the Marsh from SF District and recently sampled the upland site in April 2011. Background Information:
  - Dredging is done as needed and not typically on an annual or semi-annual basis.
  - 3 Federal Channels are dredged.
  - Past placement included nearshore, upland, and Whaler Island (upland was for construction of a Marina Access channel using fine-grained material). 27K CY went to upland site recently @ 60% sand. Upland capacity was originally 60K CY and is now full, leaving nearshore, Whaler Island, and Open ocean as the only options.
  - At Whaler Island, material is pumped from the Harbor south around the Jetty to the Island.



- Marshes experiencing low areas are just NE of the Southern and Central Culverts, N of the Highway 101.
  - Access Channel 15 feet deep, Main Channel 20 ft.
  - FY11 material went to upland site (27K CY) and FY 09 Whaler Island (56K CY).
  - Unsure where material went in much earlier years (pre-2000).
  - In 1997, all interim sites went away due to EPA Regs.
  - Currently working with Water Board and local jurisdictions to determine best use of material and doing sampling.
- April 2011 Sampling Event:
- Large rain event occurred during sampling April 14, 15, and 16 and culverts were inspected in the late afternoon of April 15th.
    - N and S Culverts were flowing at full capacity; trash wrack is at intersection of sandy beach and vegetation at North Culvert. Tops of culverts were almost submerged due to water elevation.
    - Central Culvert was filled with debris (likely from beach, NOT from landside) and not flowing full. No water was reaching central culvert. There is a trash wrack at Central culvert that seems to block only very large debris.
    - A 2<sup>nd</sup> site visit was made after rains and Central Culvert was still not flowing.

*Comment:* Knowing the elevation of the beach post-summer after beach build up is the key to determining the maximum elevations experienced and that are preventing flow in certain areas.

*Comment:* A question to ask is whether CALTRANS has done maintenance of culverts.

- Dave Imper (FWS):
  - Did survey in 1987 of rare plant along road by culverts. In '87 there was a 4-5 ft high bluff near culverts and now it's only 1 foot.
  - First noticed standing water in late summer 2001 in Marsh.
  - Tracking water levels in 2003 using Piezometers.
  - Vegetation has changed drastically – western lilly gone, NE of Center culvert 50% decline in western lilly; 75%-90% has been lost throughout the Marsh.
  - Northern Culvert contains very low porosity clay, small watershed, and lower water levels.
  - Central Culvert hasn't flowed for several years.
  - Southern Culvert not flowing freely – flowline at trash wrack only a couple feet below culvert. Waterline is highest it's been in years but it doesn't drain well.
  - Backbeach elevation is at top of Culvert @ Central Culvert.



- Backbeach elevation is 2 ft below top of Culvert at Southern Culvert.
- Elevations 1-2 ft lower at Northern Culvert than at Southern Culvert as well as material are different.
- Sebastian (CALTRANS):
  - Northern Culvert does not drain marsh at all. Box Culvert is self-sustaining. Central Culvert drains portion of Marsh.
  - DFG trying to get upstream channel to Marsh dredged. Historically it could be dredged following high tide.
  - Southern Culvert is the issue as it provides all drainage for Marsh. Beach side of culvert is often higher in elevation than Culvert and water only flows out of Marsh here during high flood events.

*Comment:* Could excavation be done to induce flow at S Channel?  
*Response:* CCC won't grant permits for this, CALTRANS has tried to create channel in past. Beachface here is private property and Harbor District should be the enforcer.

*Comment:* Central Culvert has largest drainage area and potential for drainage, likely with more potential than creating channel at Southern Culvert.

*Comment:* Goal of DFG's effort is to develop a plan to drain Marsh and induce flow. Hold-ups have been obtaining permits, creating access to beach, USACE coordination, etc. DFG defers to Dave/Sebastian on how to proceed.

*Comment:* Harbor District needs to dredge 3-5k CY per year and is playing catch up after 2006 Tsunami event.

*Comment:* If channels were to be lowered below culverts and flow induced, would beach nourishment work?

*Response:* Unsure where a lot of historically placed sand is going so can't answer. Did Marina construction create a sediment transport issue? We need post-dredging monitoring to know where material goes before we say placing sand would work.

*Comment:* Sand traditionally moves North and barrier was built to block sand from entering Harbor from the South.

*Comment:* Sand mining occurred SE of Southern culvert in 60's/early 70's. There is no drainage in this area.

*Comment:* About 10 years ago, due to debris buildup at highway after storms, a grade raise study was initiated and a double box

culvert was studied to limit impacts but also increase flow at Southern Culvert. CALTRANS would still like to implement but doesn't have funding or someone to study.

*Comment:* Could CSMW find a funder for this effort?

*Response:* The group agreed that this should be discussed further amongst CSMW to determine who would be willing/able to fund.

*Comment:* Sand transport along the beach vs. inland sand build-up is a very complex issue and it may be difficult to solve the problem by comparing this land-sea inter-flux.

*Comment:* Have there been evaluations of the elevations of the channels seaward and landward of the culverts?

*Response:* No. Problem is a combination of sediment buildup, trash, vegetation, etc. Will need a comprehensive maintenance project/schedule.

*Comment:* If no action is taken, millions of dollars could be lost by continued dredging and lost beneficial use of material. Resource Agencies are concerned only if habitats are impacted. Can we form a sub-committee to coordinate what needs to happen and take a lead on solving this complex problem?

*Response:* Likely need a study to determine the actual problem. There are permit issues regarding digging an in-board ditch at the Southern Culvert for 75 feet out to Open Water (applicant is DF&G).

*Comment:* Let's monitor the cleanup and excavation of the channels (it's a one shot cleanup).

*Comment:* From the Federal side, funding may be more appropriate through coordination with FEMA rather than using a Corps only account. Craig Conner of SPN will coordinate.

*Comment:* How do we ensure this gets done?

*Response:* A workgroup would be good. Brian recommends Deborah, Ed Keller, and Jack Hue or someone from the CA Coastal Commission Eureka Office form the workgroup.

*Comment:* Downstream channel at Southern culvert is out of the CALTRANS Right of Way.

*Comment:* CEQA document is underway for the cleanouts. Resource Agencies need to set up a committee to determine

reasons for blockage and determine duration of monitoring required.

*Comment:* Dave Imper met with the Harbor District and a consultation will be needed since problems are not going away. Empirical Study will be needed to determine the beach nourishment aspect.

*Comment:* George recommends we form the subcommittee soon and by the next meeting have an update. Chris will form the subcommittee.

❖ **Presentation: The Economic Costs of Sea-Level Rise to California Beach Communities (Phil King, SFSU and Aaron McGregor, Ocean Science Trust)**

- Report recently released titled “Economic Impacts of Sea-Level Rise to CA Beach Communities.”
  - Objective was to provide recommendations for future engineering decisions and provide info for needed studies based on the economic impacts of Sea Level Rise (SLR) on CA beach communities.
- Five beaches studied: Ocean Beach, Carpinteria City and State Beach, Broad and Zuma Beach, Venice Beach, and Torrey Pines State Beach.
- SLR Cost Study Approaches
  - Yohe Approach: examines change in MSL, ignoring storm surge and extreme events.
  - Pacific Institute Approach: based on Yohe work and used for comprehensive study of entire CA coast. Uses updated climate scenarios and modern GIS tools to predict inundation from 100-yr storm event and erosion.
- Objective was to do a disaggregated study to determine land/infrastructure at risk using multiple GCM-based scenarios, incorporating storm flooding, erosion, recreation/habitat value, and adaptation response.
- 100-yr storm + SLR examined (1.0 m, 1.4 m, and 2.0 m).
- Comment: 2.0m not indicative of Corps but based on Ice-melt estimates.
- Footprint Analyses assumes buildings/infrastructure is evenly distributed spatially.
  - Ramifications: mis-estimation of flood damages (over and under-estimation and the modeling does not account for depth of flooding).
  - Addressed by doing parcel-parcel analyses. Implication is Prop. 13 and resale values changing in CA. Large discrepancies addressed with utility companies.
- Flood replacement costs range on the order of tens of millions of dollars at each beach.
- Erosion Methods and Assumptions
  - N CA: PWA + PI methods. Combined dune and bluff erosion.
  - S CA: Bruun Rule and Long term erosion.

- Infrastructure and Land Losses broken down by buildings + land, open space and vacant land, and transportation.
- Upland Erosion Impacts as high as half a billion dollars at Ocean Beach under the High SLR scenario.

*Comment:* Flooding only examines damages to houses and infrastructure, not lands, but they do look at loss due to large scale land losses such as bluff losses.

*Comment:* Armoring data was requested from the Coastal Commission but much of the data isn't available.

*Comment:* Surf rider may have done a coastal armoring and coastal structure classification survey and have data.

*Comment:* Analysis of Huntington Beach / Seal Beach would be beneficial as flooding is prominent.

- Habitat Impacts
  - Many unknowns including additive/overlapping values, uncertainty in estimates, conceptual values, limitation on resources.

*Comment:* Phil learned we shouldn't put \$\$ values on habitats in evaluation because it's highly debatable and subjective.

*Comment:* CSBAT doesn't include USACE Valuation Aspect?

*Response:* Corps methodology doesn't currently calculate valuation based on beach width.

- Recreation and Spending Losses range from tens to hundreds of millions of dollars.
- Adaptation: Beach Nourishment based on Bruun's Rule; determined areas where armoring could be added based on structure inventory.
- Armoring Costs on order of tens of millions of dollars (i.e. \$90 M at Ocean Beach Capital Cost).

*Comment:* Were armoring costs vs. nourishment calculated?

*Response:* B/C comparison wasn't done, just cost of armoring to save infrastructure/reduce damages.

- We still don't really know how many beach visitors there are or how to accurately quantify as there is no reliable indicator.
- Limitations:
  - Parcel data, wetland data, erosion data, attendance data, ecosystem valuation data, finances and time.



*Comment:* Recreational spending value lost is the biggest take-away for the general public and there haven't been many negative public comments on the report.

❖ **Updates: Federal Agencies**

- Due to time constraints, Federal Agency updates were removed from the agenda and will be provided at the October meeting.

❖ **Updates: State Agencies**

- Due to time constraints, State Agency updates were removed from the agenda and will be provided at the October meeting.

❖ **Other Agency Updates, New Business, and Announcements**

- The BCDC conference room will not be available in the morning of the 18<sup>th</sup>.
- A position in the EPA Wetlands Group is now open and applications will be accepted until the end of September. The announcement will be sent to the CSMW group.
- The EIS for removal of clams on Klamath River coming out soon (2-10 M CY of fine sediment will be flushed). 4 Dams being removed – biggest dam removal project in country. Implementation expected in 2016-2020.
- A possible RSMP for Crescent City Area may be worth discussing in the future.
- Next Meeting will be October 18<sup>th</sup> in San Francisco, location TBD.

***Adjourn 12:30 PM***

**NEXT MEETING  
October 18, 2011  
San Francisco  
Location TBD**



## CSMW ATTENDEES

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