**CSMW Workshop 2**
***Resource Protection Guideline Development Related To Coastal Regional Sediment Management***

**Meeting Minutes**
24 February 2010
10 a.m. to 3 p.m.
California Environmental Protection Agency
Sacramento, CA

**Workshop Participants:**

Clif Davenport – California Geological Survey (CGS)
CSMW Project Manager
Brad Damitz – Monterey Bay National Marine Sanctuary (MBNMS), Project Sponsor
Karen Green – Science Applications International Corporation (SAIC)
Workshop Moderator/BIA Document Project Manager

Jack Gregg – California Coastal Commission (CCC)
Karen Bane – California Coastal Conservancy (Coastal Conservancy)
Vicki Frey, Department of Fish and Game (DFG)
Chiara Clemente – Regional Water Quality Control Board (RWQCB), Region 9 San Diego
Mike Porter – RWQCB, San Diego Region 9
Dominic Roques – RWQCB, Central Coast Region 3 – Stormwater/Timber/Water Quality Certification
Peter von Langen - RWQCB, Central Coast Region 3 – Permitting
Carolyn Box – San Francisco Bay Conservation and Development Commission (BCDC)
Jessica Hamburger – BCDC
Ken Foster – State Lands Commission (SLC)
Syd Brown – State Parks
Darren Smith – State Parks
Patrick Vaughan – State Parks
Eric Bernsten - State Water Resources Control Board (SWRCB) – Stormwater Program
Karen Larsen – SWRCB – SWAMP Program
Toni Marshall – SWRCB – SWAMP Program
George Nichol –SWRCB – SWAMP Program
Bill Orme – SWRCB – Certification and Wetland Program
Debra O'Leary – USACE, San Francisco
Robert Smith – USACE, San Diego
Nate West – USACE, Los Angeles

Note: Some individuals participated in the workshop remotely via web conference. PowerPoint presentation materials and handouts were posted to SAICs ftp site and available to individuals that remotely attended the conference.

Note: Received comments or questions and associated responses or answers are listed below according to agenda topic.

## Agenda and Discussion

### 1. Introductions and Background

Karen G. welcomed participants and introduced the workshop sponsors (CSMW, Monterey Bay National Marine Sanctuaries) and resource protection guideline development funding agencies (BEACON, USACE). CSMW co-chairs (Brian Baird, California Natural Resources Agency, USACE), CSMW Project Manager Clif Davenport, and USACE Project Manager Heather Schlosser were introduced.

All workshop participants introduced themselves.

Clif presented background information on the CSMW mission and goals, the California Coastal Sediment Master Plan, and associated technical studies and data gathering efforts. He also reviewed sediment deficit and delivery problems to the coast.

- Sediment bottom line: The natural sediment supply to the coast has been reduced due to sea cliff armoring (20%), dams and debris basins (Santa Maria River, 68%; Santa Ynez River, 51%; Ventura River, 53%; Santa Clara River, 27%)
- The road to solutions: CSMW is working to identify sediment-related problems due to dams, debris basins, dredging, sand and gravel in-stream mining, coastal structures, lack of project coordination, and inconsistent policies, procedures, and regulations. All operations need an environmentally safe approach.
- CSMW Deliverables include: Educational & Informational Reports, Computer-Based Decision Support Tools, Regional Based Coastal RSM Plans, and Agency Outreach

Karen G. described the organization and types of information summarized in the BIA document, which is titled “Review of Biological Impacts Associated with Sediment Management and Protection of California Biota.”

### 2. Workshop Purpose and Objectives

Karen G. reviewed the purpose and objectives of the workshop, as follows:

Purpose: Assist development of resource protection guidelines.

Objectives: Identify opportunities to refine existing guidelines, improve coordination with relevant programs, and identify guideline considerations to improve resource protection during sediment management projects relative to:

- Marine water quality compliance,
- Water and sediment resource protection in watersheds,
- Sediment management and resource protection in managed and recreational areas.

### 3. Resource Protection Guidelines and User's Guide Organization

Karen G. briefly reviewed input received from Workshop 1 on February 18th related to the organization of the User's Guide, resource protection guideline format, and the planned workshop series.

- User's Guide:
  - Primary objective is to provide streamlined version of the BIA document that will be of practical use to variety of end users.
  - The document will include overview summaries of sediment management activities, project types, impact issues by project phase, monitoring, and performance evaluation.
  - Resource protection guidelines will be habitat-based and presented with a flow path approach (resources, impact issues, protective measures, monitoring considerations).
  - Cross reference tables will be provided that organize guidelines by habitat, species group, impact type, project phase. In addition, a cross reference table will be provided to the BIA document for more detailed discussions of relevant topics.
- Resource Protection Guidelines will include the following types of information:
  - Issue statement
  - Guideline description
  - Rationale
  - References (as applicable)
  - Effectiveness considerations
- Workshops will be scheduled over the next few months with no more than one per month to encourage participation. Planned Workshop Topics and Tentative dates are as follows:
  - February 18 Long Beach, Guideline Development and Agency Coordination
  - February 24 Sacramento Water Quality and Water Sediment Resource Protection
  - March 25 Orange County: Dunes, Beaches, Subtidal
  - April 21, 22 Monterey: Rocky Intertidal, Subtidal, Kelp Beds, Surfgrass
  - April 22, 23 San Francisco: Embayments, Rivers, Harbors, Wetlands, Soft Bottom
  - May 25 San Diego: Impact Assessment, Monitoring, Performance Evaluation, Database Tools

The following comment was received on the presented background information:

- Karen Bane (SCC) offered to have San Francisco workshop at her office, which has meeting room with good acoustics.

## 4. Water Quality Protection During Sediment Management Projects

*Agenda discussion of the SWAMP program was moved before the discussion of 401 requirements.*

Surface Water Ambient Monitoring Program Methods and Quality Assurance Procedures

Karen Larsen (SWRCB – SWAMP Coordinator). gave a presentation describing the Surface Water Ambient Monitoring Program (SWAMP). SWAMP was formed 2000-2001 as a state-wide monitoring program for surface waters. Nine regional boards get statewide funding to address local regional monitoring. The program does not include groundwater or effluent monitoring.

The SWAMP framework coordinates science-based monitoring with comparable methods, standard indicators, quality assurance, database tools (metadata – consistent formats), and an information exchange network. Comparability benefits everyone in terms of leveraging data, utilizing established systems, and known confidence in the data.

However, achieving data comparability is challenging due to variety of data collection programs, different labs, different types of data, and multiple end users. The SWAMP answer is to integrate objectives of multiple end-user groups, test systems on small scales, implement at program scale, assess on annual basis, and ensure that data quality objectives (DQO) and data quality assurance (DQA) processes are used in planning and data reporting.

SWAMP coordinates with other agencies to assist their development of SWAMP comparable data collection and reporting. Achieving comparability is facilitated by development of standard operating procedures (SOPs), standard formats (field datasheets, laboratory submissions), data quality assurance, and formatting project data to match database requirements of the SWAMP IMS (information management system). Guidance is provided with SWAMP Tools, such as QAPP template and checklist, SOPs, Verification/Validation Procedures, MQO (measurement quality objectives), Documentation & Training, and an online SWAMP Advisor tool. SWAMP is flexible in allowing different methods as long as quality assurance and data comparability objectives are met.

Project data are formatted to match database requirements of SWAMP IMS (information management system). The ultimate goal is to integrate SWAMP data with public data through the information exchange network, which should be available to the public in summer 2010.

The following comments or questions were associated with this agenda topic:

- Are there examples of the SWAMP process being used for coastal projects?
    - The Southern California Bight Project uses SWAMP. Other regional monitoring programs, including some watershed monitoring programs also use SWAMP.

- Clif - Are there plans to extend SWAMP to other receiving water monitoring programs?
    - Yes, we are working with SCCWRP and other agencies to develop SWAMP comparable data collection and reporting.
- Karen G. - What is the possibility that monitoring conducted in compliance with 401 certification or WDR requirements for coastal sediment management projects may be incorporated into SWAMP program?
    - There is interest in integration of all surface water monitoring, including coastal construction programs into SWAMP.

<u>401 Requirements (Methods, Reporting, Standardization Considerations)</u>

Karen G. reviewed results of her review of monitoring for more than 25 401 water quality certifications or waste discharge requirements (WDRs) for sediment management projects implemented throughout the state, results of monitoring data collected during sediment management projects, impact concerns, and relevant literature. Key points of the presentation are summarized below.

- Impact considerations:
    - All projects - turbidity, sedimentation, debris, accidental spills.
    - Additional considerations – primarily for enclosed water bodies (depending on location and sediment characteristics) – bacteria, contaminants, dissolved oxygen reduction.
- Biological Issues of Concern:
    - Turbidity - seabird foraging, fish foraging/respiration, invertebrate recruitment/feeding, vegetation growth, changes in behavior/migration (invertebrates, fish, and marine mammals).
    - Sedimentation - potential to degrade habitat function (invertebrate and vegetation recruitment) and spawning grounds (egg development and hatching).
    - Accidental spills – potential to degrade habitat and adversely affect species.
- 401 certifications and WDRs Review
    - General requirements: Visual observations (weather, currents, debris, discoloration, odors, tide stage), turbidity measurements.
    - Variable requirements: turbidity (methods vary), bacteria, dissolved oxygen, pH, effluent limitations, sampling location distances relative to discharge, compliance criteria.
- Turbidity, Total Suspended Solids, Water Clarity, Light Transmittance Monitoring Data Review
    - Compliance criteria: Typically turbidity measured near discharge stations (within plume) must be within 20% of ambient at “control” stations (located outside plume area).

- Secchi disk depth (water clarity) typically measured. Nephelometers second most used method – measures nephelometer turbidity unit (NTU), which does not have standard conversion to water clarity or suspended solids. Total suspended solids (TSS) or light transmittance less frequently measured.
- Inconsistencies in sampling location distances limit understanding of near- and far-field gradients in particulate concentrations and plume characteristics associated with different types of projects, receiving environments, and environmental conditions.
- 20% of ambient criteria appears precautionary, but may be exceeded unrelated to project (natural environmental conditions). Sometimes projects conform to 20% criteria and sometimes they do not. The criterion is not biologically based, therefore, does not permit evaluation of whether impact thresholds are exceeded.

o Sediment Management Projects:

- Turbidity plumes vary depending on equipment used, placement method, sediment characteristics, and environmental conditions.
- Majority of suspended sediment settles within 300 feet, but plumes may extend more than 1 mile. Particulate concentration decreases with increasing distance; therefore, potential biological impact area much less than what is visible plume area.
- Total suspended solids concentrations generally < 500 mg/L within 1,700 feet of dredge; near surface concentrations typically less and near bottom concentrations may range higher. Highest concentrations measured with open bucket and hopper dredge with overflow.
- Total suspended solid concentrations during beach placement depends on method of discharge. Generally, higher concentrations measured with discharge to swash zone. Generally, elevated turbidity confined to surf zone unless carried offshore by rip currents. Concentrations within ranges measured during substantial storm or high wave conditions.

o Biological impact considerations:

- Greater risk of impact to less mobile species (e.g., sessile invertebrates, vegetation) or life stages (e.g., eggs, larvae). Fish may temporarily move from area. Impact risk may be higher in areas where water circulation may be reduced (e.g., enclosed water bodies) than open coast.
- Generally, organisms living in littoral zone tolerant of turbidity. Benthic organisms generally more tolerant than pelagic. Bottom dwellers or feeders typically more tolerant than visual predators or filter-feeding organisms (e.g., planktivores).
- Probability of impact relates to concentration and exposure duration.

        - Generally, small projects implemented over days have less potential to harm the environment.

    - Biological criteria considerations:
        - Protection of bird foraging – relates to water clarity (measured by Secchi disk) – fish-eating bird able to see fish. This is more of an issue for least terns during nesting season because they nest near the coast and time spent foraging away from nest increases vulnerability of eggs/young to predation. The 2001 San Diego Regional Beach Sand Project required water clarity (Secchi disk depths) to be at least 3 feet in areas where least terns had potential to forage. On the other hand, project-related turbidity may be less of issue for pelicans because they nest on offshore islands and forage over wide areas along the mainland.
        - Protection of fish and invertebrate foraging/respiration – relates to water clarity and suspended sediment concentration. Review of available data and reports suggests that coastal invertebrates and fish are tolerant of short-term exposures to relatively high suspended sediment concentrations (e.g., ≥ 1,000 mg/L – hours, ≥ 500 mg/L-days), but impact risk increases with very high concentrations or with prolonged exposure times. As exposure times increase, threshold concentrations decrease (e.g., 2 weeks, 100 mg/L).
        - Protection of vegetation growth and productivity – relates to light transmission. Review of available literature suggests that growth may become limited when light transmission generally is less than the following values: <40% surfgrass, <20% eelgrass, <10% juvenile kelp (note – adult kelp canopy extends to surface and is not light limited). However, important to consider duration of light reduction and time of year because plants may store carbohydrate reserves, which vary across year.

<u>Regional General Permit 67 Requirements</u>

Bill Orme (SWRCB) reviewed water quality considerations and criteria associated with RGP 67, which streamlines regulatory procedures for beach nourishment projects in southern California. The SWRCB prepared an Initial Study and Mitigated Negative Declaration for that permit in 2005.

- Two aspects of 401: dredge and discharge.
- Key issue of RGP 67 – Southern California beaches are deprived of sand due to reduced sediment flow to coast and retention in upper watershed.
- The idea of regional permit is to be able to take advantage of clean sand sources that opportunistically may become available by having a permit already in place that is relevant to local conditions and concerns.
- Focus of RGP 67 review - (1) Is sand clean, (2) sediment compatibility – coarseness & shape, (3) impacts of discharge to water quality and populations

(avoid grunion runs, endangered species such as least terns and snowy plovers), (4) Special Aquatic Sites (e.g., areas of special biological significance, reefs, eelgrass beds).

- Turbidity plume – particular concern relative to sensitive habitats and wildlife. If plume exceeds 2-3 days in sensitive habitat area – halt operations.
- In cases of enclosed water bodies where outflow areas may become blocked, water quality during unblocking activities should not contaminate beach for recreational users. Testing required to ensure discharge will not contaminate coastal waters.
- RGP up for renewal – there may be opportunity to take newly developed resource protection guidelines or other information into consideration if available in time.

<u>Round-Table Discussion</u>

- Regional Permits
  - Syd Brown – Is more information needed for projects to support regional permits?
  - Bill – enough is known about impacts to develop permits and we are in favor of streamlining efforts because there has been a lot of buy-in from potential users of permits to carry out protection measures. The idea of regional permits is to take advantage of clean sand with permit already in place.
  - Clif – RGP 67 was beneficial. However, sediment criteria limits use of some opportunistic sand sources. Need more flexibility to actually use the sediment that's most found in CA.
- 80/20 rule (80% sand, 20% fines)
  - Clif – The 80/20 rule may not be flexible enough to restore beaches. Restoring beaches is priority in areas of severe erosion where there are public safety issues (e.g., bluff failures at Encinitas/Solana have caused injuries/deaths). Beach restoration also can provide ecological benefits to birds, etc. Need more flexibility to use wider range of opportunistic source materials that may be available. Less sand sources are available that meet 80/20 guideline. Propose consideration of sediment characteristics throughout beach profile (out to depth of closure); i.e., sediment compatibility within entire beach profile.
  - Bill – Profile analysis may work, but need to carefully consider ecology relative to sediment compatibility along profile. There are a range of beaches with different sediment sizes so use of sand should be examined regionally to match beaches and ecology present. Also need to consider use of beach by humans. Water Board needs to consider beach sediment used for recreational purposes because they get complaints from communities. If allow beach surface to change to more earthy – potential for complaints and perhaps economic effect.
  - Karen G. – Placement location also may be a consideration – placement strategies may be considered to enhance match of source sediments with receiver site (e.g., beach, swash zone, nearshore).

- Karen Bane – Interested in flexibility. The study of fate of discharge of sediments with high silt/clay content at Tijuana is relevant to consider. A report will be available in the fall. Request that results of the study be considered in the BIA document.
- Syd - State Parks are interested in protection of natural processes or mimicry of natural processes.

- Sensitive Resources
  - Syd – Water quality concern if sensitive habitats (e.g., reefs) are in the vicinity. If reef/hard bottom is present, no dredge disposal is allowed. Corps performs local disposal for Noyo Harbor. We would like a State Parks process for the project if discharge is within park boundaries.
  - Karen G. – Some projects have been successful in vicinity of reefs – proximity, project volume, and reef characteristics are important considerations. Level of concern also relates to habitat quality, which varies with reef height and complexity.

- Monitoring Requirements
  - Karen G. – Some of monitoring requirement inconsistencies in reviewed 401 certifications and WDRs may relate to dates of permits as well as regional differences.
  - Bill – May not want to standardize monitoring for all beaches because of variability and differences in conditions – one size does not fits all - may not be best for evaluating performance.
  - Jack – Involved with dredging issues. Guidelines for different situations makes sense.
  - Karen G. – Spatial turbidity footprint may differ based on many factors (e.g., equipment, placement location, sediment characteristics, receiving water conditions). One consideration is matching monitoring method to appropriate concern (e.g., sensitive bird foraging – water clarity, reefs – light transmittance/sedimentation).
  - Karen Bane – We know that there will be turbidity for some time spatially and temporally – what we need to know is when is it a showstopper – start/stop of operations has potential to greatly impact the cost of projects. We have had to comply with 20% criteria but would like more explanation of basis for it. It is also important to understand natural variability and dynamics of receiving environments. If possible, would like guideline to address threshold and duration relative to potential impacts.
  - Clif – 20% criteria: Tijuana has data points all the way through their study area which shows what's happening up coast and down coast. This data set should be helpful to review.
  - Karen Bane – Report will be available in fall – perhaps 3-D data would be useful to see how far down plume is present in the water column .
  - Debra – Monitoring should be tied to potential for significant impacts.

- Resource Protection Guideline Considerations
    - Jack – We've been running into some roadblocks relative to monitoring so input on what is adequate monitoring would be helpful. Concerned that there may be disconnect between CSMW and those issuing permits. We need an idea of how long it will take for guidelines, etc.
    - Bill – With renewal of RGP 67 it may be possible to reconsider the monitoring aspect by incorporating results of BIA document and guidelines. Guidelines may be viewed as new tool. Monitoring standards for RGP 67 were not science-based so there is need for more science based evaluations. We do not want to depart from natural conditions too much, but also do not want to unnecessarily halt operations. Suggest results get out promptly so we have opportunity to improve on initial drafts.
    - Karen G: We are on a short track and hope results are something agencies can use and incorporate. Idea is to keep user guide small and practical.
    - Karen Bane – It seems another step is needed in outreach to Water Board staff and the Corps. Need to think about how providing examples of using data could help folks. There will be need to roll out guidelines – suggest outreach launch – travel along the state to encourage use of document.

**5. Water and Sediment Resource Protection in Watersheds**

- Discussion Objectives:
    - Issues of Concern
    - Sediment and Stormwater Management
    - Round-Table Discussion
        - Maintaining Natural Sediment Delivery to Coast
        - Guideline Development Considerations

<u>Issues of Concern</u>

- Delivery of coarse sediment to the coast is challenging because of urbanization.
- There are environmental costs/loss to coastal habitats from sediment retention within watersheds.
- Sediment is an identified impairment in many watersheds – however, no distinction is made between type of sediment.

<u>Stormwater and Sediment Management</u>

Eric Bernsten (SWRCB) gave a presentation describing stormwater and sediment management issues associated with urbanized landscapes.

- Urbanization of landscapes has created erosive environments.
    - Development – compacts soils – decreases porosity – increases runoff.
    - Hydrologic Changes: urbanization increases storm water runoff, peak flows, volumes, frequency.

- Stream Channel Stability– channel morhphology changes with urbanization. Channel changes concept model increases understanding of what is going on.
    - Increase slope: increase channel degradation. Usually results in a biological response.
- Models
    - Hydro modification-historic approach: channels need to meet peak flow standards. Excess volume can be present even when peak is reached or exceeded. Still used in many places.
    - Continuous Simulation Models – use long term rainfall record (20-30 years) and can simulate flows for entire period of record. Incorporate evapotranspiration etc. Continuous simulation models are better at predicting variability in flow and pollutant loads because they are based on long term observed hydrologic data – better informed decisions.
    - Models – HSPF, SWMM, HEC-HMS – Identify flows that move sediment within watersheds.
- Low Impact Development principles (LID): goal is to mimic site's or project's runoff.
    - Methods to mimic pre-development hydrology: soil quality improvement, native and drought tolerant vegetation, trees, pervious pavement, riparian buffers, etc.
    - Eric working with DWR on landscape plans Other good non-structural practices to mimic pre-development hydrology – better landscape design to water or evaporation budget –.

- Municipal Storm Water Permits cover most of State. Construction permits - > 1 acre in size. However, there are a lot of unregulated areas, particularly in Northern CA.
- Need to manage sediment on watershed basis – agree there is need to distinguish coarse sediment benefits from fine sediment impairment concerns.
- Points to consider
    - Can LID include identifying and preserving/enhancing coarse sediment supply and transport areas?
    - How do we mitigate for trapping of coarse sediment in detention/retention and flow duration control basins?
    - We do sediment budgets for FERC relicensing, timber harvest, why not stormwater? "SEDSHED" management.
    - Impact assessment - need to look at watershed wide assessment.

<u>Round Table Discussion</u>

- Maintaining Natural Sediment Delivery to Coast

- Need to capture environmental effects and costs associated with upstream sand removal (e.g., sand mining) or sequestering in channels.
    - More information sharing the better.
- Dams
    - Store sediment – manage sediment to promote downstream sediment delivery - additional benefit of prolonging project life of dam.
    - Dams: don't want to rely on basins to control stormwater, want to look at other options.
- Basins
    - Debris basin (sediment source areas) used more in water resource planning than sediment management.
    - Flow control basins – operate similarly to debris basins – concern create additional sediment trapping basins.
    - Techniques for bypassing coarse sediment – generally need lower elevation to bypass.
- Recognize value of sediment - Treat Soil – as living entity – NOT DIRT.
- Watershed (TMDL) Guideline – consider protection of natural process delivery to coastline. TMDLs for coarse sediment?
    - Eric – SedShed management – Some areas in Europe manage streams with fluvial budgets.
    - Karen G. – Streams with sediment listed as impairment – may need to distinguish between coarse and fine sediment.
    - Karen Bane: Southern CA Wetlands: TMDL's have been promulgated at coastal settings and marine environments. Restoration funding could cost a lot more to meet TMDL's. Would need targets for biological habitats/species to set guidelines. Guidelines no help if sediment isn't clean and we need standards.

- Data Gaps
    - George – Are sediment budgets accurate – do they distinguish sediment characteristics (coarse, fine)? How much should remain or leave littoral cells?
    - Clif – Sediment budgets start with assumptions based on whether rivers are gauged or not. – some rivers have stream gages other do not – location of gages not always at river outlet. Estimation is tough if gauging is far upstream or not at all. If present, we then try to predict what size the sediment is in the budget. Accuracy on order of 20-50%. Different methods to do budgets – check point is maintenance dredging of harbors. Gary Griggs measures amount of sand being extracted from Harbors to determine sediment budgets. Most of budgets based on sand – more accurate to describe as sand budgets. Unfortunately in sediment budgeting, we don't have an accurate way to measure the fines portion moving down coast. Hard to get true TSS loads in sediment budget work.

- Eric – Need to identify sediment sources better. Statewide GIS – consider push on municipal permits to incorporate data gathering to identify coarse sediment supply areas.

- Guideline considerations.
  - Coordination – Watershed management, stormwater management, regional sediment management.
    - Dominic – Identify clear linkage between watershed land use and coastal sediment supply. Regional sediment strategy – needs connection to watershed – develop guidance for municipality to recognize sediment source supplies - omission if not acknowledged.
    - Maintain natural processes – make part of regional sediment management strategy.
    - It makes sense to have guideline because unless we do, we will continue to have problems with land use in watersheds affecting sediment supply to the coast. Seems like a big omission if we do not proceed cautiously with future development.
  - Nexus Considerations
    - Karen Bane – What is the connection between Eric's presentation and resource protection guidelines? Understand CSMW wants to maintain natural processes through a watershed, etc.
    - Karen G. – Linkage between watershed and resource protection guidelines relates to physical/biological connection of coarse sediment delivery to coast and sandy beach habitat quality, nutrient contribution to coast associated with fines, and potential for fine sediment runoff to adversely affect habitat quality of coastal wetlands.
    - Jessica – Salmonids – sediment is issue – move between ocean, bays, rivers.
    - George – suggest reference sites that are objective to measure broader biological impacts rather than to just fish.

**6. Sediment Management and Resource Protection in Managed and Recreational Areas**

- Type of Managed Area or Jurisdiction Considerations:
  - Marine Sanctuaries, State Parks, State Lands, Critical Habitat, Marine Protected Areas (MPA's), ASBS.
- Discussion Objectives:
  - Coastal Manager concerns and interests in sediment management.
  - Identify special jurisdiction considerations.
  - Review recreational uses and potential conflicts with resource protection.
  - Identify guideline topics of interest.

Round Table Discussion

- Monterey Bay National Marine Sanctuary – Brad Damitz
  - Issues
    - MPA monitoring and research within sanctuary.
    - Substantial recreation.
    - Beach erosion concerns.
  - Considerations
    - Discharge of dredge material (from harbor) prohibited except within designated discharge areas (SF12, SF14).
    - No permit process for short-term projects with negligible impacts. Would require revision of existing regulations.
    - Sanctuary boundaries are mean high tide (MHT) line.

- State Parks – Syd Brown
  - Types of Managed Areas
    - State beaches, State Natural Preserves (highest protection), State Parks (recognized high values).
    - Suggest also consider BLM coastal monuments, seamounts.
  - Considerations
    - State Parks managed to MHT or MSL – jurisdiction extends offshore in some cases through agreement.
    - Emphasis – support natural processes (environmental, ecological). Erosion – not necessarily a bad thing – part of natural processes.
    - Policies – support Regional Sediment Management as philosophy – but do not want State Parks to get tied up with beach nourishment. Partnered in past with USACE – e.g., Surfside-Sunset, Bolsa Chica. Preference for sediment management that mimics natural processes; e.g., dredging or discharge scheduled to mimic seasonal conditions.
    - Some State Parks operated by local agencies – may do grooming. Some guidelines address concerns over beach grooming and rock removal, etc. and uses of biological material deposited along beach. Recognize the importance of protecting wrack/debris.
    - Habitats of particular concern include both rocky and sandy beaches based on local considerations.

- State Lands – Ken Foster
  - Issues
    - Interests are different, primary concerns are boundaries and public trust issues. Often there is disconnect in regulatory process – projects need a lease from SLC to be implemented – however, coordination often occurs late in the process – almost as an afterthought.
    - Recommend coordination with SLC early in process – takes time to issue permits – tied to Commission meetings (every two months).
  - Considerations
    - Mean High Tide line (MHT line) – boundary between private and State ownership.
    - S. CA has a lot of development, which has potential to change MHT line.
    - MHT line survey must be done as baseline prior to beach nourishment project. Sand placement will change MHT. It is understood that the MHT line changes daily – migrates on and offshore seasonally – and private upland interests may extend further offshore depending on season. There is recognition that there will be lag time after nourishment until natural accretion and erosion results in return to historical condition. SLC looks at most historical mean high tide line survey relative to property ownership. For example, Malibu has lost 10-12 feet of sand over last year and they look at the most historic MHT line. Additional surveys add to database.
    - MHT line survey establishes point in time – not considered a fixed point – however, if hard structure is placed – then MHT line becomes fixed. Seawalls change conditions.
      - Karen G - Do you look at the pre-artificial MHT line?
      - Ken – This is complex issue of property law and water boundaries.

- San Francisco Bay – Jessica Hamburger (BCDC)
  - BCDC Considerations
    - Integrated program – long term sediment management strategy.
    - USACE environmental conditions coordination – Biological Opinions (NOAA, USFWS), Herring (DFG) – salmonids (outmigration), Herring (spawning) – not listed, but commercial species of concern.
    - Fish protection – environmental work windows – salmonids, herring, Delta smelt – depends on part of bay.
      - Karen G. – What are bases of environmental windows?

        - Jessica – Biological opinions and studies – for example, studies of herring show when high turbid conditions are present, sediment can attach to eggs causing problems.
    - Least Tern – literature review commissioned – should be released soon. Looking at locations of nesting sites and where foraging.
    - San Francisco Bay – contaminant issues – dredge material management office (DMMO) – testing requirements – appropriate discharge or reuse.
    - BCDC has designated areas of discharge to protect open water uses.
    - Permitted Middle Harbor enhancement area – special condition to create fill (normally prohibited) – needed bay plan amendment – monitoring to verify objectives met.
    - Beneficial reuse site – generally, wetland restoration. Recreational uses – few beaches in bay; wetland restoration projects - recreation uses promoted by project.
    - Turbidity – do not have 20% ambient criteria – operationally based. Overflow restricted – except certain instance. San Francisco Bay unique situation.
  - Other Notes
    - George – What tests are done to distinguish between contaminated and clean sediments?
    - Debra – Start with Inland Testing Manual – Tiered approach Chemical, Toxicity, Bioaccumulation; in addition, there are special evaluation criteria for SF Bay.
    - Jessica - In SF Bay there are many agencies involved in review of sediment testing results to determine where it's suitable to dispose of or reuse material and only a small % can be re-used.

- Other Considerations
  - Vicky – Beach elevation may increase through nourishment – concerns of impacts on nearby sensitive habitats – for example Crescent City – marsh located adjacent to area of beach nourishment – beach elevation increase may be adversely affecting marsh. Also important to be aware of terrestrial impacts/blocking culverts, etc. Suggest guidelines consider potential for adjacent terrestrial impacts.

7. Final Remarks

- Workshop Process and Products
  - Will summarize received input, draft guidelines will be submitted for review, finalized guidelines will be incorporated into two documents (BIA Document, User's Guide).
- Next Steps
  - Next Steps include scheduling remaining workshops.

- The next 3 workshops will be habitat based and the last will address other topics such as monitoring, performance evaluation, and database tools: Tentative dates and locations include:
    - March 25 Orange County, April 21, 22 Monterey, April 22, 23 San Francisco, and May 25 San Diego.
    - Follow-up e-mails will be sent to confirm dates and locations and to provide workshop agendas and materials.