

# CSMW WORKSHOP SERIES



## RESOURCE PROTECTION GUIDELINE DEVELOPMENT RELATED TO COASTAL REGIONAL SEDIMENT MANAGEMENT



# CSMW Workshop 1

## February 18, 2010



- Introductions and Background
- Workshop Purpose and Objectives
- Resource Protection Guideline Topics
- Key Considerations for Guideline Development
- Guideline Priorities
- User's Guide Organization
- Workshop Process and Products
- Next Steps

# Introductions



## Sponsor Agencies

- California Sediment Management Workgroup (CSMW)
- Monterey Bay National Marine Sanctuary (NMS)

## Contract Agencies

- Beach Erosion Authority for Clean Oceans and Nourishment (BEACON)
- USACE, Los Angeles District (Moffatt & Nichol contract)

## Project Manager/Moderator

- Science Applications International Corporation

# Introductions



## CSMW Co-Chairs

### USACE:

George Domurat

Susie Ming, Project Manager and lead coastal planner, Los Angeles District

### CA Natural Resources Agency:

Brian Baird

Chris Potter – Staff liaison

## CSMW Project Manager:

Clif Davenport

## Monterey Bay NMS:

Brad Damitz

## SAIC Project Manager:

Karen Green

# Background



- Coastal Sediment Management Workgroup Efforts and Work Products
- Biological Impact Analysis (BIA) Document
- Workshops



# Coastal Sediment Management Workgroup



## Federal

**USACE**  
**SPL**  
**SPN**  
**USGS**  
**NOAA**  
**USEPA**  
**MMS**



## State

**Natural Resources Agency**  
**Boating & Waterways**  
**Coastal Commission**  
**Parks & Recreation**  
**Geological Survey**  
**Fish & Game**  
**Coastal Conservancy**  
**SWRCB**  
**Ocean Protection Council**

## Local

Cal Coast (local agencies)  
Regional Entities

## NGOs

CMANC (Ports & Harbors)

# CSMW Mission and Goals



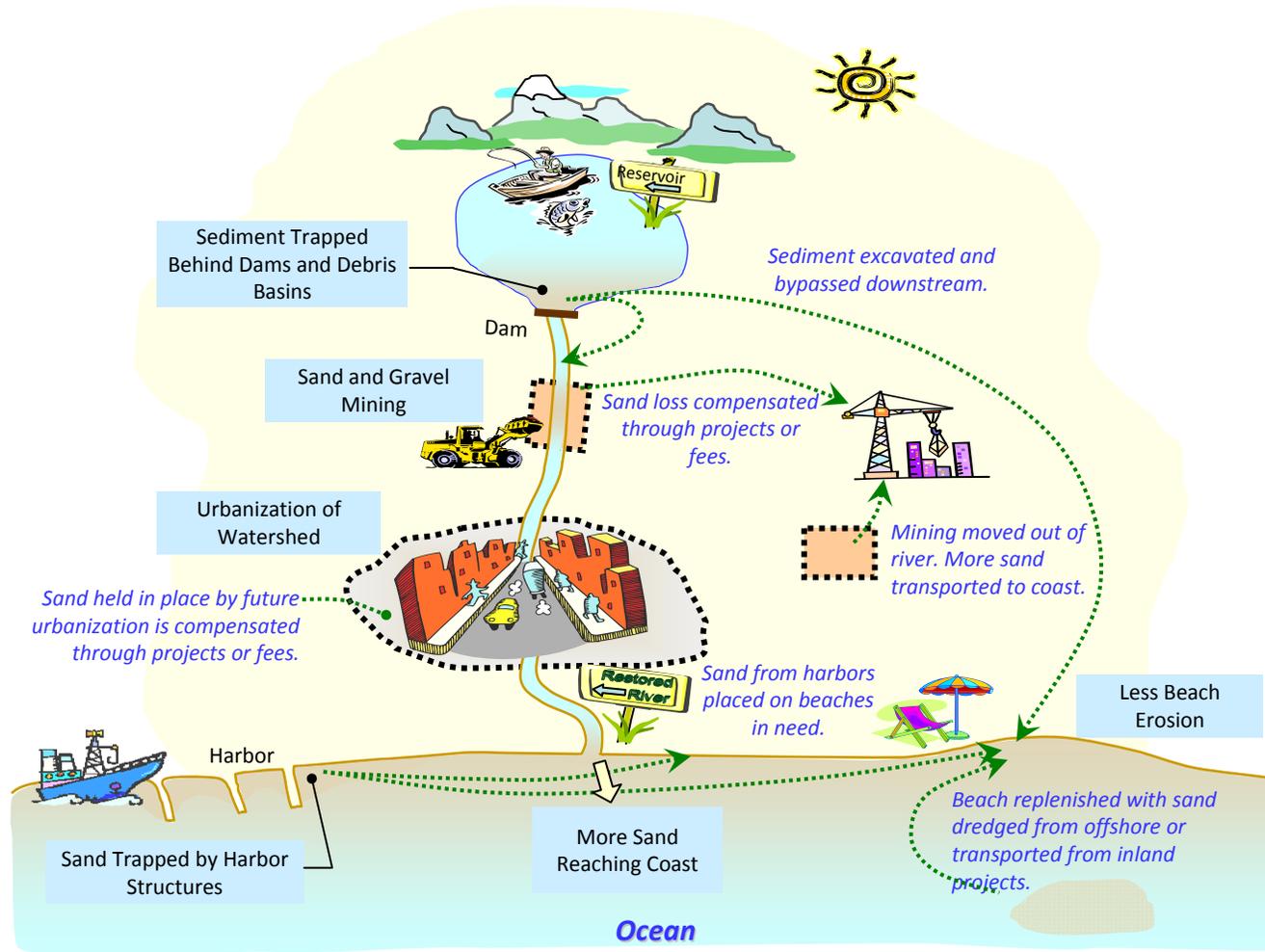
## Mission

*Conserve, restore, and protect California's coastal resources by developing and facilitating regional approaches to managing sediment imbalances.*

## Goals

- *To reduce shoreline erosion and coastal storm damages;*
- *restore and protect beaches and coastal habitat by restoring natural sediment supply from rivers, impoundments and other sources to the coast; and*
- *optimize the use of sediment from ports, harbors, and other opportunistic sources.*

# Regional Sediment Management- Road to Solutions



Regional Sediment (Sand) Management

# COASTAL SEDIMENT MASTER PLAN

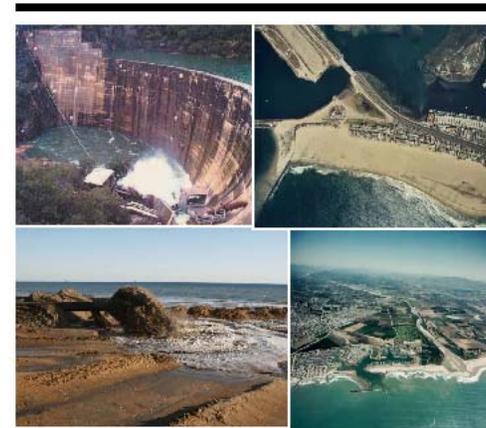


## Deliverables:

- ✓ Educational materials, reports & data
- ✓ Computer-based decision support tools
- ✓ Regional-based Coastal RSM Plans.
- ✓ Agency outreach to incorporate RSM

THE CALIFORNIA COASTAL SEDIMENT MASTER PLAN

Status Report



PREPARED BY

California Coastal Sediment Management Workgroup

May 2009

<http://www.dbw.ca.gov/csmw/default.aspx>

# Educational & Informational Reports and Data



- **Biological Impacts Analysis and Recommendations**
- **Cumulative Loss of Sediment Due to Dams**
- **The Economics of Regional Sediment Management in Ventura and Santa Barbara Counties**
- **Beaches, Littoral Drift and Littoral Cells -understanding California's Shoreline and Beach Nourishment**
- **Beach Restoration Regulatory Guide**
- **Sand Compatibility and Opportunistic Use Program (SCOUP)**
- **SMP Status Report and Brochure**
- **Development of Sand Budgets for California's Major Littoral Cells**
- **Tijuana Estuary Demonstration Program**
- **Sources, Dispersal & Fate of Fine Sediment Supplied to Coastal California**
- **Public Outreach & Workshops**
- **Conceptual Plan to Capture/Reuse Coastal Sediments Lost to Submarine Canyons**
- **California Beach Erosion Assessment Survey (CBEAS)**

# Biological Information Analysis (BIA) Study



- ✓ Eight public and three technical workshops in 2004: Broad spectrum of attendees
- ✓ Participants asked to identify biological issues of concern (amongst other things)
- ✓ General consensus: better information needed to better determine whether and when sediment management activities could cause environmental problems
- ✓ CSMW commissioned a study to:
  - ✓ Assess what was known about critical biota and habitat,
  - ✓ compile adverse and beneficial impacts from sediment management activities
  - ✓ summarize important findings for educational perspectives, and
  - ✓ Provide mitigation guidance for consistent project methodologies to facilitate environmental assessments and permitting
- ✓ Workshop input compiled into list of approximately 30 questions to be answered as part of the Study

# Summary of Draft BIA Study



## Report provides:

- ✓ Extensive discussions on various critical biota and habitats and their sensitivity to sediment impacts,
- ✓ Detailed descriptions of what's involved in sediment management activities, and
- ✓ Recommendations on how to conduct such activities prior to, during and after sediment management projects to minimize adverse and enhance positive impacts.

# Academic and Agency Review

Peer Review commissioned for academic balance:

- Dr. Steven Schroeter – UCSB and CCC-SAP
- overall positive commendations and support.

CSMW's cochair requested additional review:

- Resource & Regulatory Agencies  
CDFG, NMFS, USACE Regulatory
- Coastal Managers of Sanctuaries and Protected Areas  
ONMS-WRCO, MBNMS
- Coastal Wetlands Biologist  
SCCWRP

Reviews were all generally positive and supportive on what and how we were trying to accomplish. Several reviewers had recommendations for improvements or requested additional information above and beyond that contained within the report.



## **Agency Workshop Topics**

**General Approach to Guidelines Development (Long Beach 2/18/10)**

**Resource Protection in Managed and Recreational Areas, Water Quality (Sacramento 2/24/10)**

**Beach Construction BMPs**

**Beach Maintenance**

**Dredging and Aquatic Discharge BMPs**

**Endangered and Threatened Species**

**Essential Fish Habitat, Fisheries**

**Impact Assessment, Monitoring, Database Tools**

# Biological Impact Analysis (BIA) Report



## Comprehensive Summary Document

REVIEW OF BIOLOGICAL IMPACTS  
ASSOCIATED WITH  
SEDIMENT MANAGEMENT  
AND  
PROTECTION OF CALIFORNIA COASTAL BIOTA

In Support of the  
CALIFORNIA SEDIMENT MANAGEMENT MASTER PLAN



Prepared for:  
California Coastal Sediment Management Workgroup  
Under Contract with: BEACON



- 10 Chapters
- 4 Appendices
- Technical Summaries - California coastal habitats and biological resources - increase understanding of how sediment management may affect them.
- Balanced summaries of types of impacts and issues of concern.
- Review of mitigation measures, monitoring, and effectiveness considerations.
- Science-based recommendations to protect coastal biota during sediment management activities.

# Standardized Ecological and Response Information

- Regulatory Status
- Distribution
- Functions & Species Supported
- Life History Facts
- Resilience
- Reported Responses
- Case Studies

## Habitat and/or Species:

Habitat	
Species Common Name	
Species Scientific Name	



## Regulatory Status:

Endangered	
Threatened	
CDFG Managed	
Essential Fish Habitat	
Other	
None	

## Distribution:

Life Stage or Function	California			On Land	Inter-tidal	Near-shore < 30 ft	Off-shore > 30 ft	Exposed and/or Protected Coast
	South	Central	North					
Primary Habitat								
Foraging Habitat								
Nesting/Spawning Habitat								
Resting/Roosting Habitat								

## Functions:

Associated Species	Primary Habitat	Forage Habitat	Spawning Nesting Habitat	Resting Habitat	Fisheries Habitat		Forage Prey
					Commercial	Sport	
Invertebrates							
Reptiles							
Birds							
Vegetation							
Mammals							
T&E Species							

## Life History Facts:

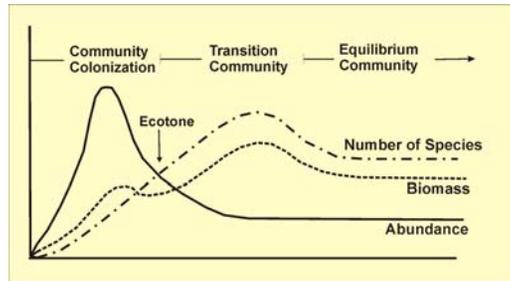
Reproduction		Growth Season	Dormancy Season	Migrator y Season	Longevity Life Span	Motility
Method	Season					
Egg/Nest Egg/Spawn Flower/Seed Planktonic Spores Vegetative	Months	Months	Months	Months	Annual 1-3 Years > 3 Years	Sedentary

# Summaries – Understanding the Impact



## Technical Data by Issue Area

- Equipment
- Burial, Sedimentation
- Water Quality



Distance or Time from Disturbance



Unconfined hydraulic discharge



Hydraulic discharge behind dike

Photos from SANDAG

Table 5.3-1. Noise levels associated with operation of different types of construction and marine equipment.

Dredges and Construction Equipment	Airborne Noise dBA at 50 ft (15 m)	Dredges and Other Marine Equipment	Underwater Noise dB (re 1 $\mu$ Pa)
Clamshell dredge <sup>2</sup>	76	Large clamshell bucket dredge (sands) <sup>3a</sup>	99 to 124 (RMS) at 500 ft (150 m)
Bucket dredge	75-88	Small clamshell bucket dredge (soft sediments) <sup>3a</sup>	107 (RMS) distance not reported
Hopper dredge, dredging <sup>1</sup>	82	Bucket dredge <sup>3b</sup>	150 to 162 distance not reported
Hopper dredge, discharging <sup>1</sup>	79	Barge loading <sup>3a</sup>	108.6 (RMS) at 500 ft (150 m)
Backhoe (average)*	72-90	Barge discharge <sup>3a</sup>	96 to 108.7 (RMS) at 1,035 ft (316 m)
Backhoe**	84-93	Trailing suction hopper dredge <sup>4</sup>	183 to 195 normalized at 3 ft (1 m)
Bulldozer **	85 -103	Trailing suction hopper dredge <sup>4</sup>	162 to 175 normalized at 33 ft (10 m)
Compressor (average)*	73-88	Trailing suction hopper dredge <sup>4</sup>	142 to 155 normalized at 328 ft (100 m)
Crane (average)*	74-89	<b>Other Marine Equipment</b>	
Crane **	90 - 102	Vessel Traffic (ambient)*	130 (peak)
Excavator (average)*	81-97	Ferry Terminal*	131-136 (peak)
Front loader (average)*	72-90	Cable laying <sup>5</sup>	160 at 800 ft (244 m)
Front-end loader**	86-94	Sonar devices*	150 to 215 distance not reported
Generator (average)*	71-82	Pile driving <sup>6</sup>	177 to 220 (peak) at 33 ft (10 m)
Grader (average)*	79-93		
Heavy trucks (average)*	82-96		
Pile driver (peak)*	81-115		
Pumps (average)*	68-80		
Roller (average)*	72-75		

Sources:

Construction equipment: WSDOT 2006\*, <http://www.cdc.gov/elcosh/docs/d0500/d000573/d000573.html>\*\*

Dredges (dBA) = Chambers Group 1992<sup>1</sup>, Helix cited in Chambers Group 2000<sup>2</sup>, Boeing 2005<sup>7</sup>

Dredges and other marine equipment (dB re 1  $\mu$ Pa) = Dickerson et al. 2001<sup>3a</sup>, Miles et al. 1986 and 1987 cited in

Dickerson et al. 2001<sup>3b</sup>, Bassett Acoustics 2005<sup>4</sup>, City of Pittsburg 2005<sup>5</sup>, Hastings and Popper 2005<sup>6</sup>

Note: Underwater noise values may be referenced as peak, RMS, or either of these reference levels may not be reported.

# Summaries – Monitoring Requirements



**Table . Representative water quality monitoring requirements associated with beach nourishment and/or sand placement projects in California.**

Example Projects	Permit and/or Document	Monitoring Observations	Dredge and/or Nearshore Disposal Receiving Water Monitoring	Beach Monitoring
San Diego Beach Sand Project 2001	RWQCB 401 Certification File No. 00C-063 (Project implemented per described in application, including monitoring water column). USACE 1999-15076-RLK, USFWS Biological Opinion FWS Log. No. 1-6-01-F-1046.	Visual observations during water quality monitoring: 1. current speed/direction 2. tidal stage, 3. trash, debris, 4. odors	1. Daily Water Quality for first week, followed by weekly. Sampling Locations: A. 250 ft (75 m) downdrift, B. 500 ft (150 m) downdrift, C. 250 ft (75 m) updrift, D. 500 ft (150 m) updrift, E. Control 1000-1500 ft (300-450 m) from dredge, F. 1000-1500 ft (300-450 m) from dredge and at least 500 ft (150 m) from first control. Analyzed for dissolved oxygen, turbidity (NTU and Secchi disk), temperature, conductivity, pH. <i>Monitoring Plan Criteria:</i> turbidity not to exceed ambient by more than 20%.  2. Water clarity within top 3 ft of water column < 3ft with Secchi disk. <i>USFWS/USACE Criteria:</i> reduction in water clarity no more than 2.47 acres (1 hectare).	1. Daily nearshore water clarity within top 3 ft of water column < 3ft with Secchi disk immediately west of active wave break on beach. <i>USFWS/USACE Criteria:</i> reduction in water clarity no more than 2.47 acres (1 hectare).  2. Weekly Bacteria. Three replicate samples collected offshore discharge point. Analyzed for total and fecal coliform. <i>Monitoring Plan Criteria:</i> If any sample exceeds 200/100 ml, notify and additional sampling until standards met for 3 consecutive days.
Oceanside Harbor Dredging 1998	RWQCB Waste Discharge Requirements W98B0016 (Jan 1998 Modification)	Daily visual observations for: 1. current speed/direction 2. tidal stage, 3. trash, debris, 4. oil/petroleum materials, 5. discoloration/ extent of visible turbidity plume, 6. odors	1. Daily Turbidity - Secchi disk or turbidity meter. Sampling locations at dredge and nearshore disposal site: a. 30 m (100 ft) downdrift, b. 75 m (250 ft) downdrift, c. 150 m (500 ft) updrift, d. control 300-450 m (1000-1500 ft) updrift, e. control 300-450 m (1000-1500 ft) updrift and at least 150 m (500 ft) from first control. <i>Criteria: none specified.</i>  2. Water Samples each dredge cycle. Sampling locations a-c, f-h. Analyzed for TSS, hydrogen sulfide, polar & non polar oil & grease. <i>Criteria: none specified.</i>	1. Daily Turbidity - Secchi disk or turbidity meter. Sampling locations: k. 900 m (3000 ft) updrift and 150 m (500 ft) offshore, l. 450 m (1500 ft) downdrift and 150 m (500 ft), m. directly offshore in plume. <i>Criteria: none specified.</i>  2. Bacteria weekly. Three replicate samples. Sampling location: 30 m (100 ft) downdrift. Analyzed for total and fecal coliform. <i>Criteria:</i> If any sample exceeds water contact standards, notify and additional daily sampling at 30, 60, 150, 300 m (100, 200, 500, 1000 ft) downdrift daily until no exceedance for 3 consecutive days.

# Significance Criteria – What Has Been Used



**Table D.1. Significance criteria that have been used for evaluating potential impacts to biological resources associated with representative California sediment management projects.**

Type of Criteria					
Federal and/or State Listed Sensitive Species	Essential Fish Habitat	Native Species and/or Other Sensitive Resources	Wildlife Movement	Commercial Fishing	Environmental Policies
<b>Northern California</b>					
<i>USACE 1998c, Crescent City Harbor O&amp;M Dredging, Del Norte County California, EA and FONSI</i>					
Forceful effect causing change in existing conditions.		Forceful effect causing change in existing conditions.	Forceful effect causing change in existing conditions.		
<i>USACE 2002c, Operations &amp; Maintenance Dredging of the Moss Landing Harbor Federal Channels, Monterey County, California, EA and FONSI</i>					
If it is expected to affect the population status of a State or Federally listed, proposed, or candidate species or is expected to affect the breeding or foraging habitat of such a species so as to result in increased mortality or reduced reproductive success.		Causes the loss or long-term degradation of any environmentally sensitive habitat. Causes a measurable change in species composition or abundance of a sensitive community or causes a substantial change to marine habitat within the harbor or bay for a period of five years or longer. An impact is a forceful effect causing a change in conditions.	Interferes substantially with the movement of any resident or migratory fish or wildlife species.		
<b>Central California</b>					
<i>USACE 2001, Morro Bay Harbor Six-Year Maintenance Dredging Program, Final EA</i>					
Not specified, but potential to impact threatened and endangered species assessed.	Not specified, but potential impacts to grunion and essential fish habitat assessed.	Not specified, but potential impacts to plankton, invertebrates assessed		Not specified, but potential for impacts to commercial oyster bed assessed.	

# Mitigation Summaries – *What Has Been Implemented*



**Table . Schedule and prohibition zones used in association with beach nourishment and/or replenishment projects to protect sensitive fish species.**

Document	SAND Volume (cy)	% Fines	Species	Schedule	Prohibition Zone	Other Measures
USACE 1998 Crescent City EA	65,000	sandy	Rockfish	late Aug-Sep		To avoid spawning
Chambers 2002. Biological Analysis (Goleta Beach Winter Dike)	4,000 to 8,000	NA	Grunion	Fall/winter		Coordinate berm removal prior to Memorial Day weekend outside predicted grunion run, grunion monitoring conducted, and removal operations limited to areas with no grunion or will cease until no grunion present.
Chambers 2001, Mitigated Negative Declaration (BEACON South Central Coast)	100,000	Up to 25	Grunion Steelhead	Schedule between Sept 15 and Mar 15 avoids spawning season at most sites.		(1) Monitor grunion if project conducted during spawning season with curtailment of construction and/or construction of protective berms as necessary to protect and allow eggs to hatch. (2) Monitor inlets of Goleta Slough, Carpinteria Creek and Ventura River, if sedimentation closes inlets, will be opened with bulldozers.
SANDAG and U.S. Navy 2000, EIR/EA, San Diego Regional Beach Sand Project)	2,000,000	1-51, mainly <10	Grunion	Pre-construction surveys to determine habitat suitability, monitoring during construction, buffer or move operations		

# Types of Comments



- **Regulatory**
  - McEteer-Petris Act
  - BCDC Coordination
  - 404 Permit Clarifications
  - Specific Regulations – Discharges, Dredging
  - Sediment Testing
  - Expand EFH, FWCA, ESA relative to BO
  - Add Marine Mammal Protection Act Review
  - Update Habitat Areas of Particular Concern
  - Marine Sanctuary Act 304(d)

# Types of Comments



- **Habitats and Species**
  - Additional State Managed Species
  - Additional Estuarine Resources (Fish, Birds)
  - Expand Resource Occurrence versus Potential Habitat
- **CEQA/NEPA**
  - Expand Indirect Impacts
  - Expand Cumulative Impact Assessment
  - Significance Thresholds Based on Mechanistic Studies
- **Impact Considerations**
  - Potential to Cause or Contribute to Periods of Decline
  - Natural Variability in Distribution
  - Natural Disturbance and Habitat Quality
  - Summaries to Establish Causality -Impacts and Effects
  - Emphasize Site Specific Evaluation of Projects

# Types of Comments



- **Monitoring**
  - Underlying Rationales or Bases of Monitoring Standards
  - Expand Use of Indicators
  - Expand Study Design and Statistics
  - Use of SPI Camera
  - Expand Statistics and Study Design
  - Field and Monitoring Experiments with or instead of BACI
  - Use of Indicators
  - Difficulties of Ecosystem-Based Monitoring
- **Guidance Development**
  - Impact Significance Thresholds
  - Protective Measures
  - Monitoring
  - Summary Version User's Guide
  - Additional Details Regarding Recommendations (Rationale, Next Steps)
  - Work Plan to Address Recommendations

# Response to Comments and Completion of Biological Impact Analysis (BIA) Document



- Conduct Workshops
- Develop Resource Protection Guidelines
- Finalize BIA Document
- Prepare Abbreviated User's Guide
- Develop Work Plan

## *Workshop Purpose: Assist Development of Resource Protection Guidelines*



### **Objectives:**

- ✓ Obtain agreement on guideline topics,
- ✓ Align guideline topics by agency interests,
- ✓ Identify topics with limited procedural guidance,
- ✓ Identify key considerations of guideline development,
- ✓ Prioritize guideline topics, and
- ✓ Clarify format preferences
  - Guidelines
  - User's Guide.

# Guideline Categories and Topics



# Resource Protection Guideline Categories



- **Coordination**
- **Project Design Considerations**
- **Impact Evaluation**
- **Type of Impact**
- **Type of Resource**
- **Best Management Practices**
- **Monitoring**
- **Performance Evaluations**

# Potential Guideline Topics



## Coordination

- **Resource Agencies**
  - Endangered Species Act Coordination
  - Essential Fish Habitat Assessment
- **Protected Areas**
  - Marine Sanctuaries
  - Marine Protected Areas
  - Other Managed and Protected Areas
- **Stakeholders**
  - Fishing Organizations
- **Other**

# Potential Guideline Topics



- **Project Design**
  - **Project Size, Volume per Unit Area**
  - **Proximity to Sensitive Resources**
  - **Sediment Compatibility, Quality**
  - **Equipment**
  - **Dredge/Excavation Depths**
  - **Beach Slopes, Placement Methods**
  - **Maintenance Frequency**
  - **Other**

# Potential Guideline Topics



- **Impact Evaluation**
  - **Thresholds of Significance**
  - **Direct Impacts**
  - **Indirect Impacts**
  - **Cumulative Impacts**
  - **Essential Fish Habitat Assessment**
  - **Other**

# Potential Guideline Topics



- **Type of Impact**
  - Dredging/Aquatic Discharge
  - Beach Construction
  - Beach Maintenance (Grooming)
  - Burial, Sedimentation
  - Entrainment
  - Lighting
  - Noise
  - Water Quality
  - Other

# Potential Guideline Topics



## Type of Resource

- **Habitats**
  - Habitats of Particular Concern
  - Dune/Strand
  - Sandy Beach, Sandy Subtidal
  - Rocky Intertidal, Rocky Subtidal
  - Kelp Beds
  - Eelgrass, Surfgrass
  - Bays, Wetlands
- **Species**
  - Sensitive Species
  - Invertebrates
  - Fish
  - Birds
  - Marine Mammals

# Potential Guideline Topics



- **Best Management Practices**
  - Construction Methods
  - Location Controls (Buffers, Barriers)
  - Notifications
  - Operational Controls
  - Response Plans
  - Schedule
  - Training

# Potential Guideline Topics



- **Monitoring Considerations**
  - Project-Phase
  - Type of Impact
  - Type of Resource
  - Indicators
- **Performance Evaluations**
  - Data Base Tools
  - Mitigation Effectiveness
  - Future Guideline Updates

# Guideline Development Considerations



# Guideline Development Considerations



- **Available Procedural Guidance**
- **Consistency with Other Relevant Guidelines**
- **Data Gaps**
- **Relative Impact Concern**
- **High Likelihood of Effectiveness**
- **Practical**
- **Priority Tiering**
- **Other**

# Guideline Development Considerations



- **Available Procedural Guidance**
  - NOAA Essential Fish Habitat Assessment Guidance
  - USFWS endangered species consultations
  - SWRCB Surface Water Ambient Monitoring Program
  - USEPA and USACE Testing Manual
- **Consistency with Other Relevant Guidelines**

# Guideline Development Considerations



- **Address Data Gaps**
  - Impact Thresholds
- **Relative Impact Concern**
  - Sensitivity of Resource
  - Duration of Impact
  - Potential to Add to or Prolong Impact

# Guideline Development Considerations



- **High Likelihood of Effectiveness**
- **Practical**
  - Easy to Implement
  - Easy to Verify
  - Cost-Effective
- **Tiering**
  - Based on Project Type, Size, or Implementation
- **Other**

# Guideline Priorities



# Guideline Consideration Priorities

Agency/Affiliation \_\_\_\_\_ Location (N. or S. CA)



	1	2	3
<b>Available Procedural Guidance</b>			
<b>Consistency with Other Relevant Guidelines</b>			
<b>Address Data Gaps</b>			
<b>Relative Impact Concern</b>			
<b>Sensitivity of Resource</b>			
<b>High Likelihood of Effectiveness</b>			
<b>Practical</b>			
<b>Easy to Implement</b>			
<b>Easy to Verify</b>			
<b>Cost-Effective</b>			
<b>Tiering (Based on Project Type, Size, or Method)</b>			
<b>Other</b>			

# Priorities By Guideline Type

Agency/Affiliation \_\_\_\_\_ Location (N. or S. CA)



	1	2	3
<b>Agency Coordination</b>			
Endangered Species Act Coordination			
Essential Fish Habitat Assessment			
Marine Protected Area Coordination			
Other Agency Coordination			
<b>Stakeholder Coordination</b>			
Fishing Organizations			
Other			

# Priorities By Guideline Type

Agency/Affiliation \_\_\_\_\_ Location (N. or S. CA)



<b>Project Design Considerations</b>	<b>1</b>	<b>2</b>	<b>3</b>
Sediment Compatibility - Quality			
Environmental Design			
Environmental Implementation Strategy			
Reduce Maintenance Frequency			
Other			
<b>Impact Evaluation</b>			
Thresholds of Significance			
Direct Impacts			
Indirect Impacts			
Cumulative Impacts			
Essential Fish Habitat Assessment			

# Priorities By Guideline Type

Agency/Affiliation \_\_\_\_\_ Location (N. or S. CA)



Type of Impact	1	2	3
Dredging			
Aquatic Discharge			
Beach Construction			
Beach Maintenance (Grooming)			
Burial			
Sedimentation			
Entrainment			
Lighting			
Noise			
Water Quality - Bacteria			
Water Quality - Contamination			
Water Quality - Turbidity			
Other			

# Priorities By Guideline Type

Agency/Affiliation \_\_\_\_\_ Location (N. or S. CA)



<b>Best Management Practices</b>	<b>1</b>	<b>2</b>	<b>3</b>
Buffers			
Construction Equipment, Methods, and BMPs			
Dredge Equipment and Operational Controls			
Environmental Coordination and Notifications			
Location Controls			
Mitigation and Monitoring			
Notifications			
Response Plans			
Schedule and/or Seasonal Restrictions			

# Priorities By Guideline Type

Agency/Affiliation \_\_\_\_\_ Location (N. or S. CA)



	1	2	3
<b>Monitoring and Reporting</b>			
Pre-Construction			
Construction			
Post-Construction			
Indicators			
Impact Relevance			
Standardization Considerations			
<b>Performance Evaluations</b>			
Database Tools			
Mitigation Effectiveness			
<b>Future Guideline Updates</b>			

# Guideline Priorities By Resource

Agency/Affiliation \_\_\_\_\_ Location (N. or S. CA)



<b>Habitat</b>	<b>1</b>	<b>2</b>	<b>3</b>
Dune/Strand			
Sandy Beach			
Sandy Subtidal			
Reefs			
Kelp Beds			
Eelgrass			
Surfgrass			
Bays			
Wetlands			

# Guideline Priorities By Resource

Agency/Affiliation \_\_\_\_\_ Location (N. or S. CA)



<b>Species Group - Invertebrates</b>	<b>1</b>	<b>2</b>	<b>3</b>
Abalone			
Lobster			
Pismo Clam			
Sea Urchins			
Sandy Beach Invertebrate Recovery			
Sandy Subtidal Invertebrate Recovery			
Rocky Intertidal Invertebrates			
Rocky Subtidal Invertebrates			
Other			

# Guideline Priorities By Resource

Agency/Affiliation \_\_\_\_\_ Location (N. or S. CA)



Species Group - Fish	1	2	3
Grunion			
Pacific Herring			
Salmonids			
Bottom-Dwelling Fish			
Nearshore Water Column Fish			
Subtidal Reef Fish			
Tidepool Fish			
Other			

# Guideline Priorities By Resource

Agency/Affiliation \_\_\_\_\_ Location (N. or S. CA)



<b>Species Group - Birds</b>	<b>1</b>	<b>2</b>	<b>3</b>
California Brown Pelican			
California Least Tern			
Western Snowy Plover			
Gulls			
Skimmers, Other Terns			
Shorebirds			
Wading Birds			
Waterfowl, Seabirds			
Other			

# Guideline Priorities By Resource

Agency/Affiliation \_\_\_\_\_ Location (N. or S. CA)



<b>Species Group – Marine Mammals</b>	<b>1</b>	<b>2</b>	<b>3</b>
Sea Otter			
Pinnipeds			
Cetaceans			
Dolphins, Porpoises			
Whales			
Other			

# Guideline Format and User's Guide Organization



## User's Guide Organization



***Objective: Streamline Document to Facilitate Practical Use to Agencies, Planners, Scientists***

- **Condensed Version BIA Document**
- **Overview Summaries**
  - Key Elements (Resources, Impact Issues)
- **Resource Protection Guidelines**
  - Descriptions
  - Table Summaries (e.g., Project Type, Resource Type, Project Phase)

# Resource Protection Guideline Format



## Descriptions

- Issue Statement
- Guideline Description
- Rationale
- References (As Applicable)
- Effectiveness Considerations

# Workshop Process and Products



- ✓ Workshops
- ✓ Summarize Received Input
- ✓ Develop Draft Guidelines
- ✓ Guideline Review
- ✓ Incorporate Guidelines into Documents
  - BIA Document
  - User's Guide

# Workshop Series



<b>Date (2010)</b>	<b>Location</b>	<b>Key Topics</b>
February 18	Long Beach	General Approach to Guideline Development, Resource Agency Coordination
February 24	Sacramento	Water Quality, Water-Sediment Resource Protection in Watersheds, Resource Protection Managed Areas
March (24)	Monterey	Essential Fish Habitat, Endangered Species Reefs/Vegetated Habitats
March (25)	San Francisco	Dredging/Aquatic Discharge BMPs, Fisheries, Beach/Dune Maintenance
April (6-8)	San Diego	Beach Construction BMPs, Beach Maintenance (Grooming), Endangered Species, Essential Fish Habitat
April (20-22)	Orange County	Impact Assessment, Monitoring, Indicators, Database Tools

## Next Steps



- Workshops - Feb-Apr 2010
- Draft Guidelines - May-Jun 2010
- Guideline Review - Jun-Jul 2010
- Finalize BIA Document - Aug-Oct 2010
- User's Guide - Dec 2010 – Jan 2011
- Work Plan - Dec 2010 – Jan 2011

# Next Steps



## Workshop Participation

### Contacts

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### Document Links

- <http://www.dbw.ca.gov/CSMW/default.aspx>