

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

**Workshop 1 Handout
Example Types of Mitigation Measures**

Example Types of Pre-construction Mitigation Measures



Mitigation Measures	Equipment	Burial	Sedimentation	Turbidity /Water Quality
1. Maintain Sediment Compatibility and Quality				
A. Minimize difference in sediment characteristics unless enhancement		X	X	X
B. Minimize change in surface substrate unless enhancement		X	X	X
2. Environmental Design				
A. Avoid direct impacts to sensitive habitats	X	X	X	X
B. Match project volume to constraints	X	X	X	X
C. Maintain hydrodynamics unless enhancement			X	X
D. Avoid steep scarps and slopes			X	
3. Environmental Implementation Strategy				
A. Avoid repetitive disturbance in same year ¹	X	X		
B. Use multiple small sites instead of one large site ¹		X	X	
C. Incorporate refuge areas from disturbance	X	X		
4. Reduce Maintenance Frequency Over Time				
A. Incorporate dune restoration ¹			X	
B. Use sedimentation basins and source control	X		X	
C. Buffer to minimize impacts to marine mammals	X			

¹ To minimize recovery time or decrease maintenance frequency

Example Types of Pre-construction Mitigation Measures



Mitigation Measures	Equipment	Burial	Sedimentation	Turbidity /Water Quality
5. Habitat Buffers				
A. Buffer to minimize turbidity impacts	X	X	X	X
B. Buffer to minimize sedimentation impacts				
6. Sensitive Species Buffers				
A. Buffer to protect fishery spawning grounds	X	X	X	X
B. Buffer to minimize impacts to sensitive birds	X			X
C. Buffer to minimize impacts to marine mammals	X			
7. Environmental Coordination and Notifications				
A. Prepare hazardous materials management plan	X			X
B. Prepare inlet monitoring and response plan			X	
C. Conduct U.S. Coast Guard notification to minimize hazards and interference	X			
D. Conduct environmental training program	X	X	X	X
8. Mitigation and Monitoring Program				
A. Conduct EFH and/or sensitive species coordination, as appropriate	X	X	X	X
B. Finalize mitigation and monitoring plan	X	X	X	X
C. Pre-construction surveys and monitoring	X	X	X	X

Example Types of Construction Mitigation Measures



Construction Mitigation Measures	Beach Nourishment			Dredge	
	Dune	Beach	Nearshore	OffShore	Bay
9. Location Controls					
A. Avoid use of equipment, pipelines, and construction materials in sensitive habitats	X	X	X	X	X
B. Avoid anchoring and/or operation of dredges, drill rigs, and/or barges in or above SAV habitats			X	X	X
C. Surf-zone discharge location		X			
D. Upper beach discharge location		X			
E. Limit intentional approaches within 300 ft (91 m) and use slow vessel speed around sensitive marine mammals			X	X	X
10. Schedule and/or Seasonal Restrictions					
A. Environmental windows	X	X	X	X	X
B. Avoid repetitive disturbance in same year ¹	X	X	X	X	X
C. Avoid peak recruitment/productive period		X			
11. Dredge Equipment and Operational Controls					
A. Dredge equipment selection				X	X
B. Use dredge controls - entrainment				X	X
C. Use dredge controls - turbidity				X	X

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Example Types of Construction Mitigation Measures



Construction Mitigation Measures	Beach Nourishment			Dredge	
	Dune	Beach	Nearshore	OffShore	Bay
12. Construction Equipment, Methods, and Best Management Practices (BMPs)					
A. Use silt curtains or gunderbooms to minimize turbidity					X
B. Use dikes or swales to minimize turbidity		X			
C. Use dikes to protect sensitive resources		X			
D. Minimize potential hazardous materials leaks or spills	X	X	X	X	X
E. Reduce noise levels below sensitive wildlife harassment or disturbance thresholds	X	X			X
F. Minimize artificial lighting in sensitive wildlife areas	X	X			X
13. Construction Monitoring					
A. Sediment compatibility inspections and testing	X	X			
B. Water quality compliance		X	X	X	X
C. Inlet status		X			
D. Sensitive species, as appropriate	X	X			X
14. Post Construction Monitoring					
A. Verify impact significance, as appropriate	X	X	X	X	X