

San Francisco Littoral Cell Coastal Regional Sediment Management Plan

Public Meeting
Thursday, January 21, 2016, 6-8 pm
Pacifica Little Brown Church



Welcome and Introductions



Meeting Objectives

- Provide overview of SFLC CRSMP and development process
- Present key contents of Draft SFLC CRSMP
- Receive public comments and address questions
- Discuss next steps



Agenda

Time	Topic
6:00	Welcome, Introductions, Agenda Review
6:10	Overview of SFLC CRSMP and Development Process to Date
6:25	Key Contents of SFLC CRSMP
6:50	Public Comments and Clarifying Questions
8:00	Adjourn



Proposed Ground Rules

Please:

1. Focus your input on the meeting objectives
2. Honor the agenda and time limits for discussion
3. Interact respectfully
4. Turn off or silence cell phones



Overview of the Coastal Sediment Management Workgroup



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



What

CSMW



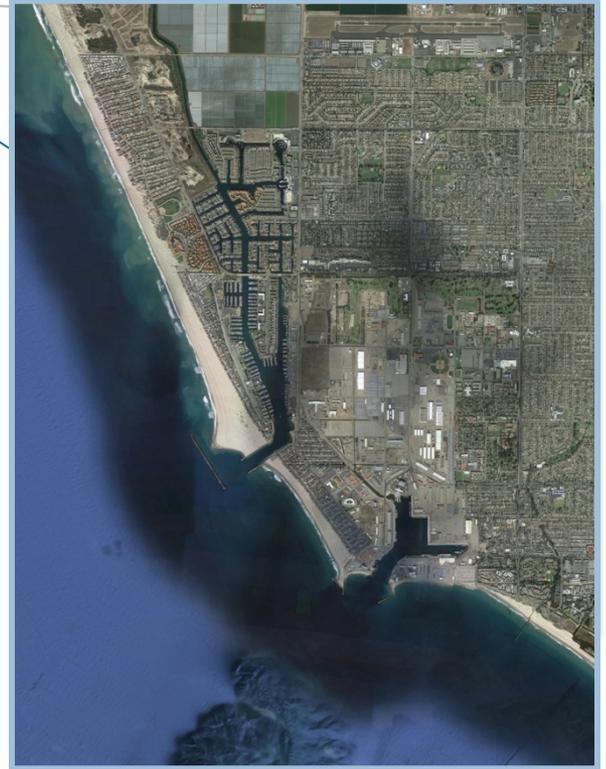
Who

A collaborative taskforce of state, federal, regional, and local entities concerned about adverse impacts of coastal erosion on coastal habitats



CSMW

Why



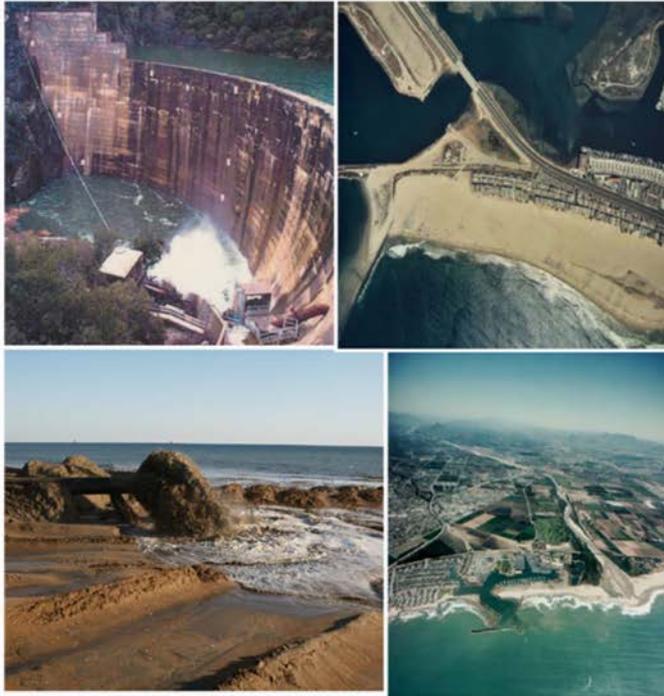




Where



**THE CALIFORNIA COASTAL SEDIMENT MASTER PLAN
Status Report**



Prepared By

California Coastal Sediment Management Workgroup
<http://www.CDBW.ca.gov/csmw/default.aspx>

June 2012

How

SMP On-Going Activities & Products

- Analysis of Impacts and Recommended Mitigation for Critical Species and Habitats: *Guide for Environmental Documentation*
- Beach Nourishment Reference Guide: *Guidance for local coastal stakeholders*
- Beaches, Littoral Drift, and Littoral Cells: *Understanding California's Shoreline and Beach Nourishment*
- Biological Impacts analysis and Recommendations
- California Beach Restoration Strategy
- Coastal Sediment Benefit Analysis Tool (CSBAT)
- Conceptual Plan to Capture/Reuse Coastal Sediments Lost to Submarine Canyons
- CSMW Website
- Development of Sand Budgets for California's Major Littoral Cells GIS

User's Survey

- Initial Data Inventory and Collection - GIS Database

Overview of Coastal Regional Sediment Management Plans



Purpose

Create comprehensive regional sediment management plans that provide sufficient information for decision makers to develop policies or execute management projects for the future vitality of the entire California Coast

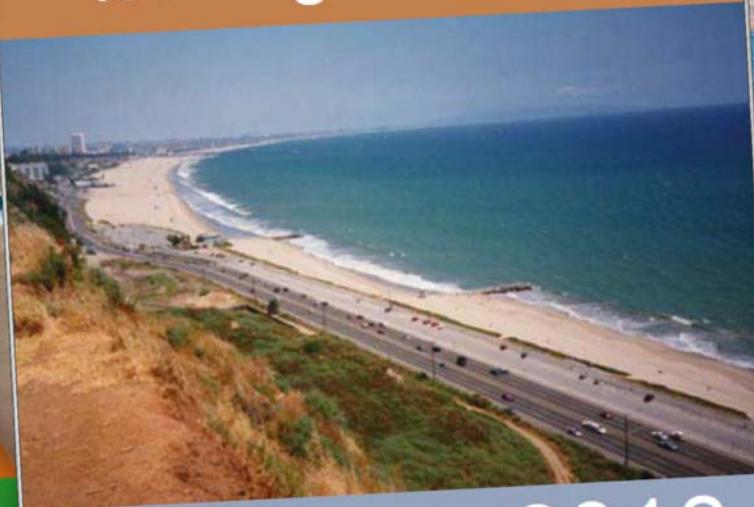


Examples



COASTAL REGIONAL SEDIMENT MANAGEMENT PLAN FOR THE SAN DIEGO REGION

los angeles county



CRSMP 2012

coastal regional sediment management plan



Coastal Regional Sediment Management Plan
Central Coast from Pt. Conception to Pt. Mugu



Orange County
Coastal Regional Sediment
Management Plan

Prepared for
U.S. Army Corps of Engineers
County of Orange
California Coastal Sediment Management Workgroup

Prepared by
Everest International Consultants, Inc.
In Association with
Science Applications International Corporation
Dr. Philip King

June, 2013

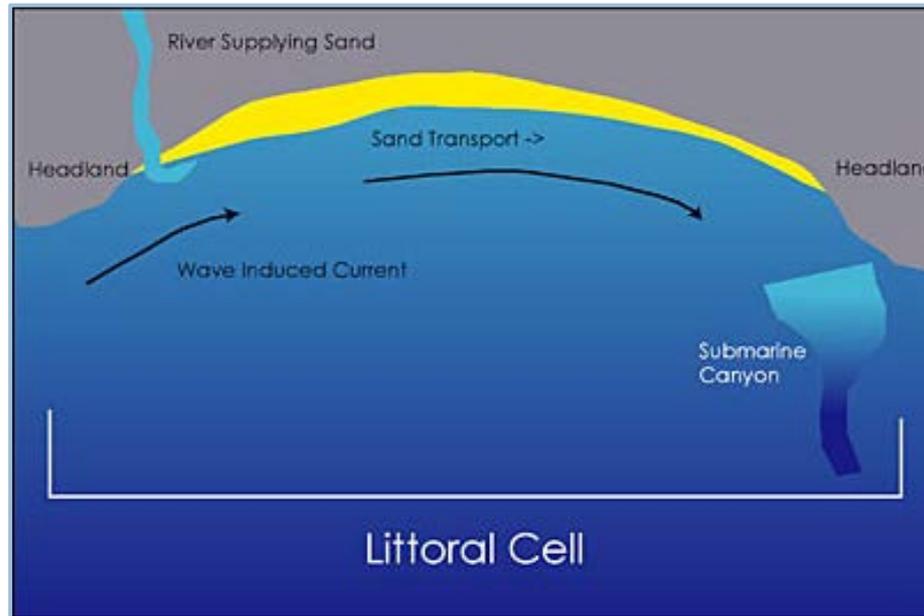
Report

January 2009

Overview of the San Francisco Littoral Cell CRSMP



Littoral Cells and Beach Width



SOURCES OF SAND

Longshore Transport in
River Inputs
Sea Cliff or Bluff Erosion
Gully Erosion
Onshore Transport
Dune Erosion
Beach Nourishment

SINKS FOR SAND

Longshore Transport out
Offshore Transport
Dune Growth
Sand Mining
Submarine Canyons

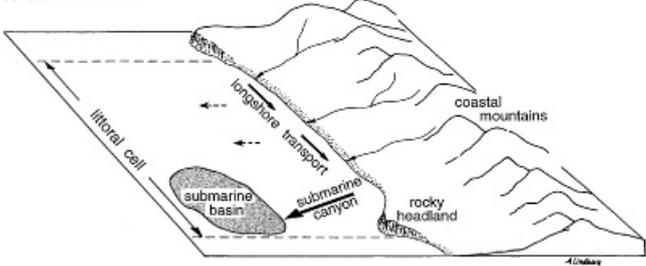
BALANCE

Accretion
Erosion
Equilibrium

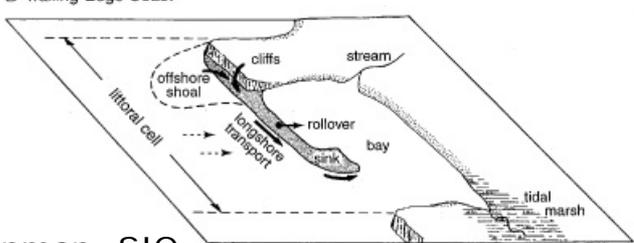


Littoral Cells

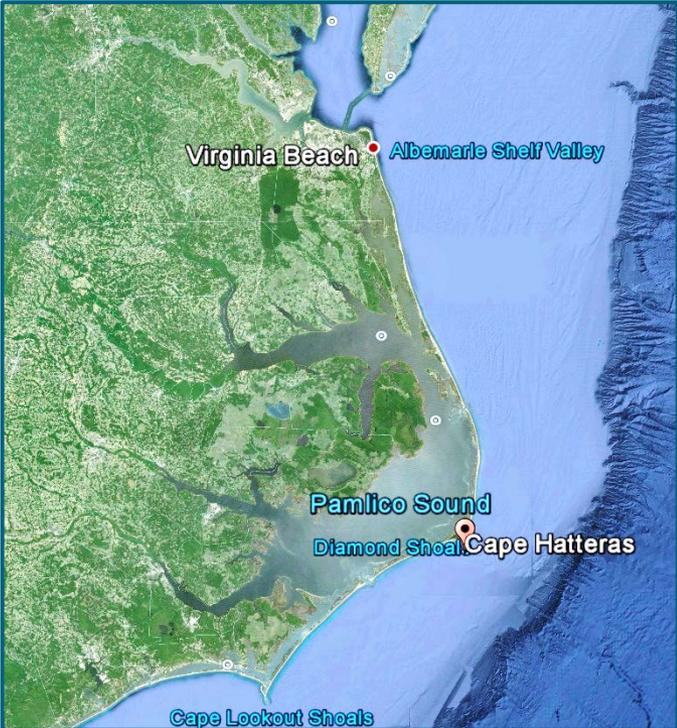
A Collision Coast



B Trailing-Edge Coast



Inman: SIO



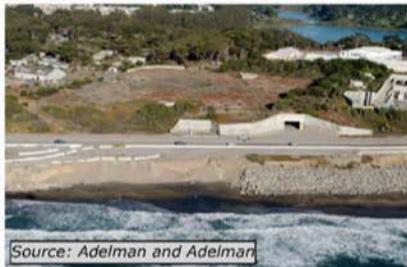
San Francisco Littoral Cell CRSMP

San Francisco Littoral Cell

Coastal Regional Sediment Management Plan

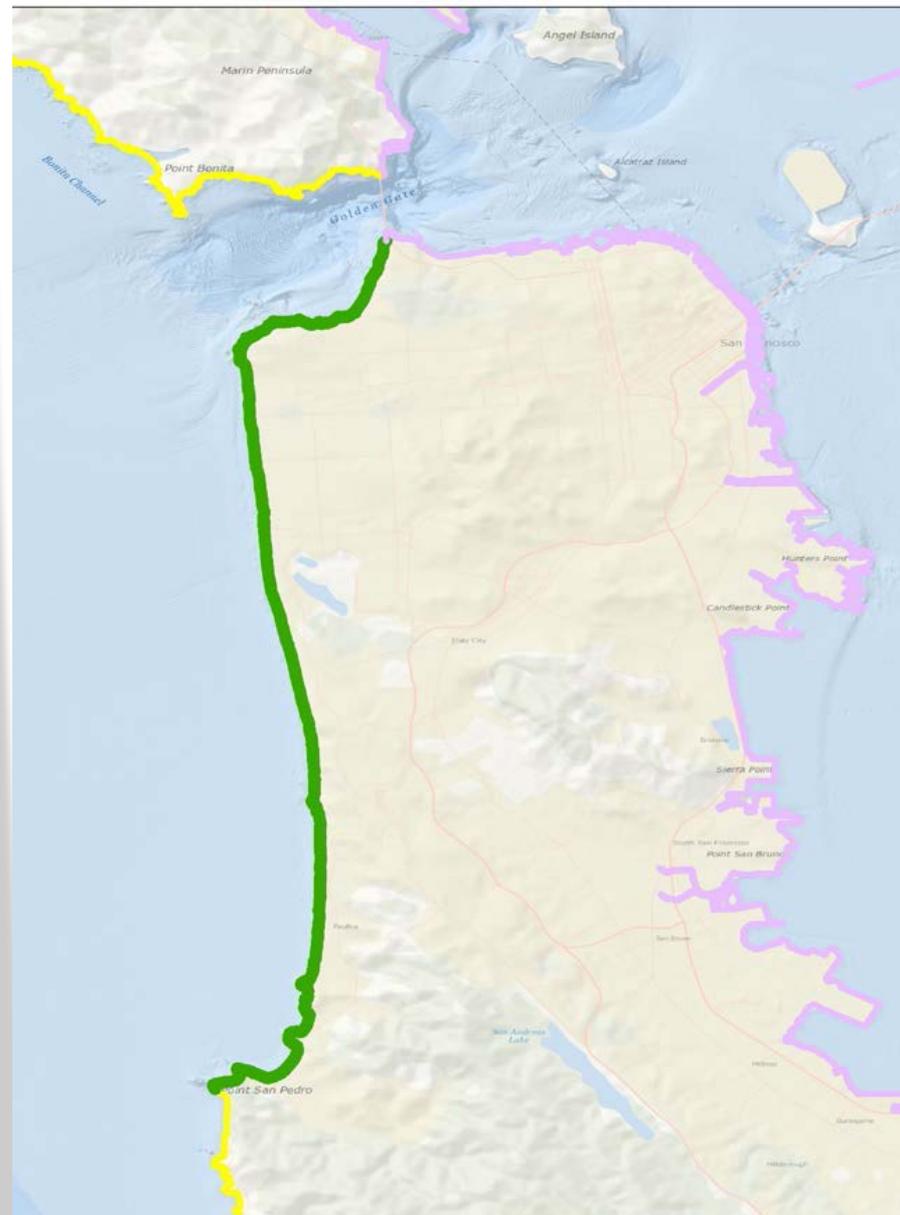
Draft

January 2016



Prepared for:
THE CALIFORNIA COASTAL SEDIMENT MANAGEMENT WORKGROUP

Prepared By:
ENVIRONMENTAL SCIENCE ASSOCIATES
KEARNS & WEST
PETER R. BAYE, PHD
PHILIP KING, PHD



Why is the SFLC CRSMP important to local jurisdictions?

- Supports regional management of sand
- Economies of scale
- Access to more funding
- Coastal Commission and Coastal Conservancy looking to include RSM within LCP updates



Plan Development Process

- Engagement – 2012
 - Public meetings/workshops
 - Stakeholder Advisory Group meetings
 - Municipal workshop
 - Meeting with City of Pacifica staff
- Project hiatus
 - Focus on governance
- Public draft released Jan. 4, 2016 for 30-day comment period

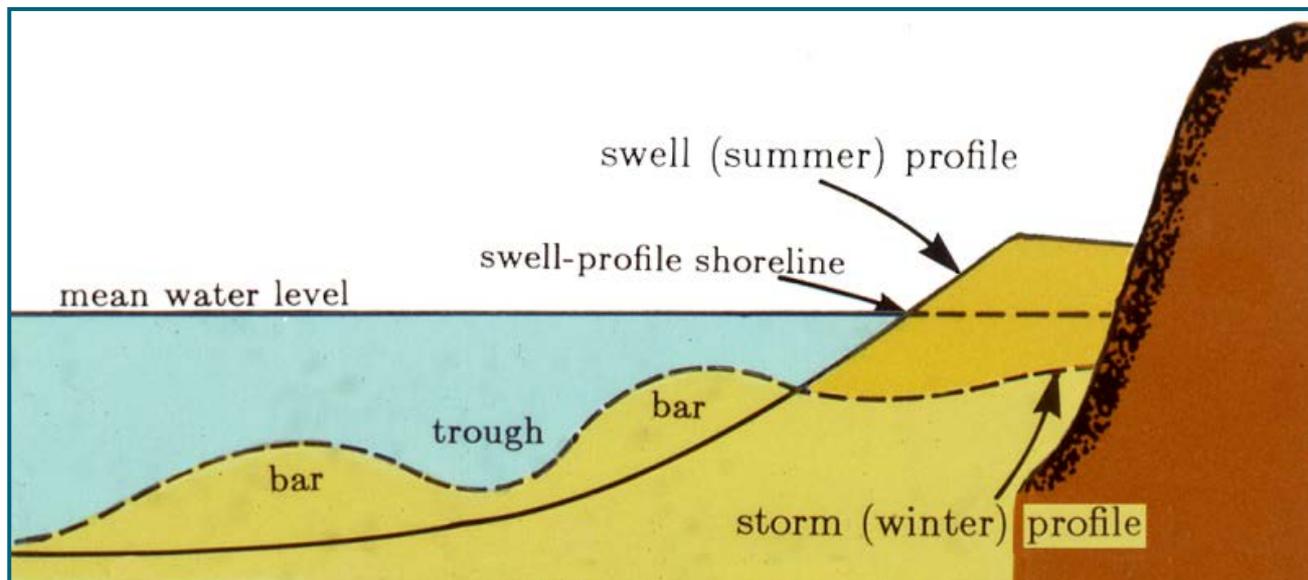
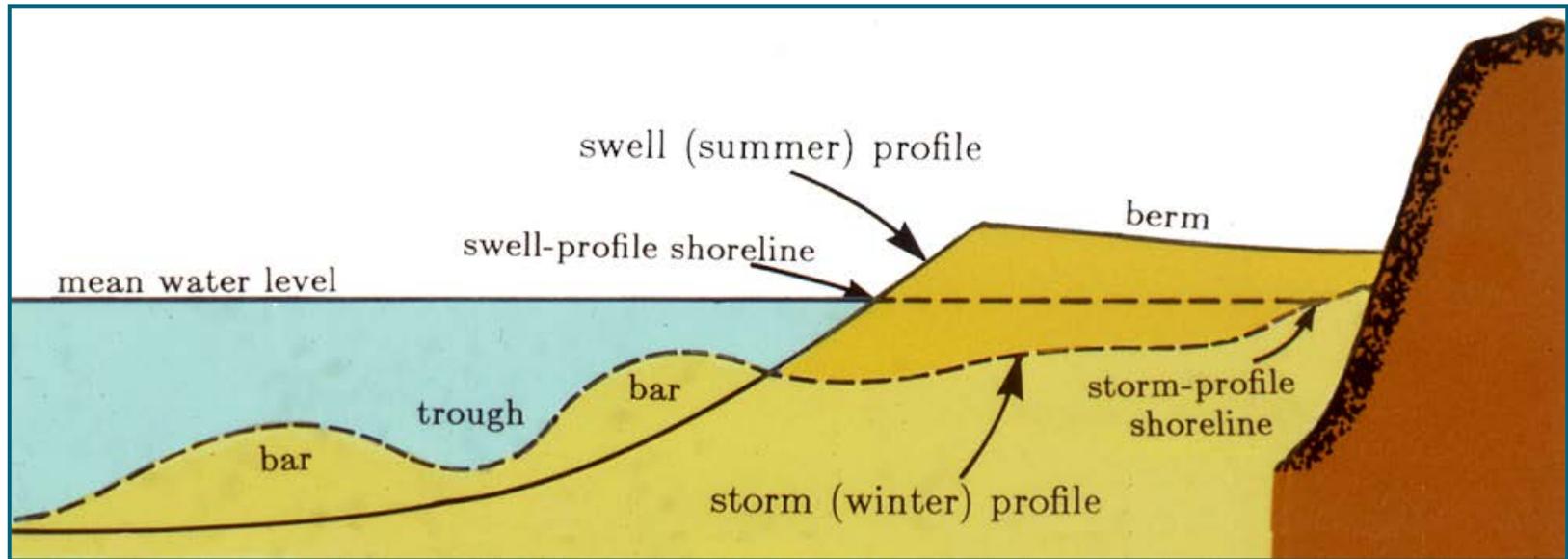


Plan Overview

- Key information included in Plan
- What is *not* in the plan (e.g. not a list of pre-approved projects)
- How this information links to other coastal programs and planning, e.g.:
 - Local Coastal Programs
 - Sea Level Rise
 - Resiliency
 - SF Bay CRSMP (BCDC)



Why Regional Sand Management is Important



Contents of Draft Plan

Executive summary

1. Introduction
2. Scope of work
3. Regional setting and processes
4. Erosion and coastal hazards
5. Addressing erosion locations
6. Economics and funding
7. Governance
8. Monitoring and reporting

9. Recommended next steps

10. Conclusions

Appendices

- A. Geomorphic modeling
- B. Detailed coastal hazard map
- C. Biological assessment
- D. Coastal policy analysis
- E. Potential funding sources assessment
- F. Economic analysis



Northern Reaches



- | | | |
|---|--------------------|--------|
| 1 | Baker Beach | 8,300 |
| 2 | China Beach | 1,100 |
| 3 | Pt Lobos | 8,000 |
| 4 | North Ocean Beach | 5,600 |
| 5 | Middle Ocean Beach | 10,500 |
| 6 | South Ocean Beach | 7,500 |
| 7 | Fort Funston | 2,500 |



Southern Reaches



Critical Erosion Locations

- Baker Beach
- China Beach
- Pt Lobos
- North Ocean Beach
- Middle Ocean Beach ●
- South Ocean Beach ●
- Fort Funston
- Daly City North
- Daly City Middle ●
- Daly City South (Landfill) ●
- Mussel Rock
- Manor District ●
- Beach Boulevard ●
- Sharp Park ●
- Hidden Cove
- Rockaway Cove ●
- Linda Mar ●
- Shelter Cove





Measures for Erosion Response in The SFLC

REACH	MEASURE				
	(A) NO ACTION ¹	(B) SAND PLACEMENT	(C) SAND PLACEMENT WITH ARTIFICIAL REEFS	(D) ARMOR ²	(E) MANAGED REALIGNMENT
Baker	●				
China	●				
Pt. Lobos	●				
NOB	●				
MOB	●	●		●	●
SOB	●	●	●		●
Ft. Funston	●				
Daly City (north to south)					
1. Upper	●				
2. Middle	●	●	●		●
3. Lower (Landfill)				●	●
Manor District		●	●	●	●
Beach Boulevard		●	●	●	●
Sharp Park	●	●	●	●	●
Hidden Cove	●				
Rockaway Cove	●	●		●	●
Linda Mar	●	●			●
Shelter Cove	●				

● – a primary measure for use in the alternatives

1 – allow natural processes without intervention

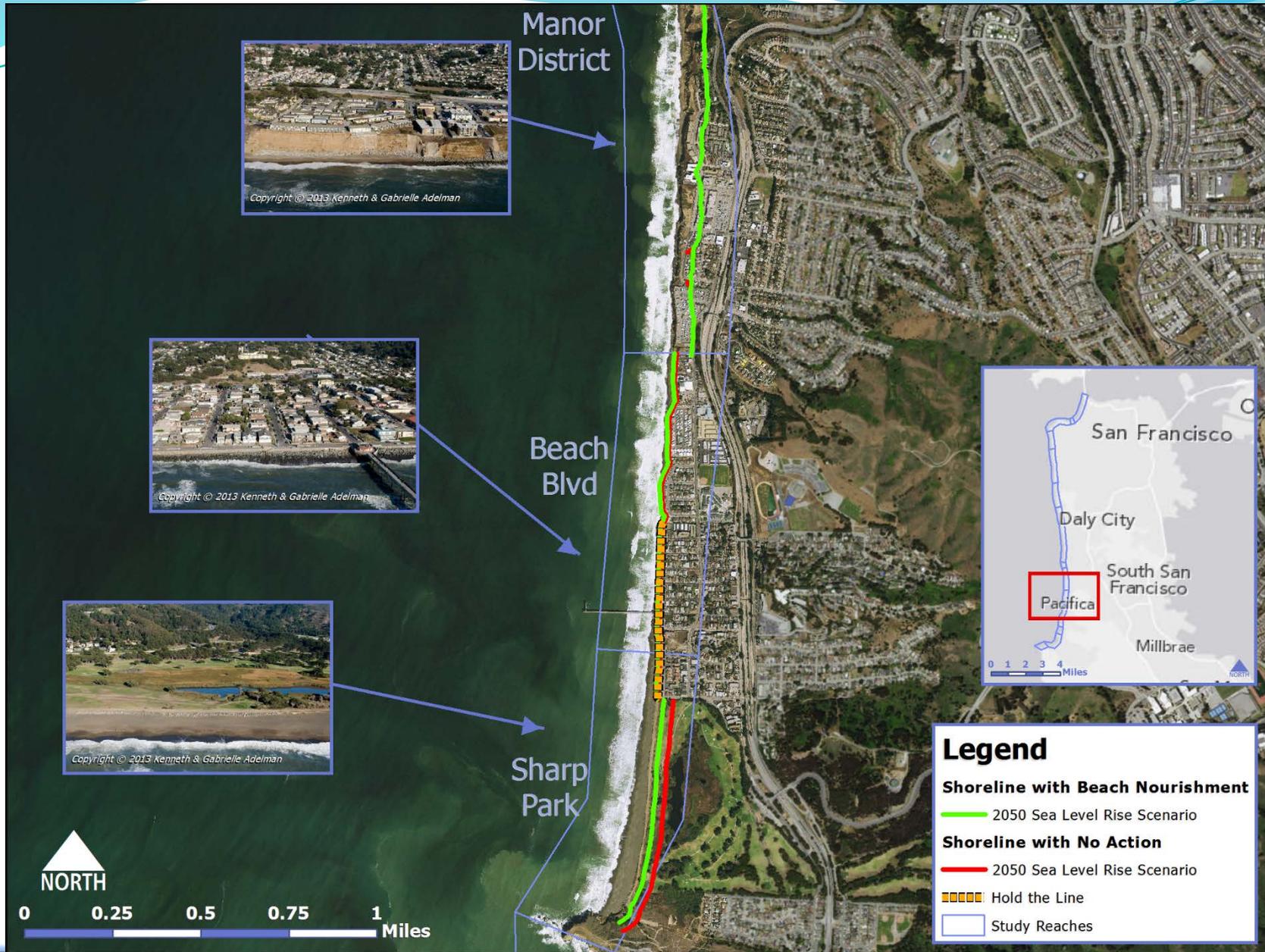
2 – maintain armor such as sea walls or revetments, to “hold the line” against erosion of backshore.

Erosion and Coastal Hazards

Sea Level Rise Scenarios









Legend

Shoreline with Beach Nourishment
 — 2050 Sea Level Rise Scenario

Shoreline with No Action
 — 2050 Sea Level Rise Scenario

■ ■ ■ ■ ■ Hold the Line

▭ Study Reaches

Manor District

FIGURE 5 MANOR DISTRICT SUMMARY

Option	Measure	Description	Length mile	Sand Placements		
				# by 2100	years	
1	Sand Placement	Within a Managed Realignment Strategy, 100' sand placement the first year, and then every time the beach width falls below the minimum beach width. Backshore allowed to erode	1.18	7	2010, 2025, 2042, 2057, 2071, 2085, 2098	
2	Sand Placement with Artificial Reef	Within a Managed Realignment Strategy, 100' sand placement the first year, and then every time the beach width falls below the minimum beach width. Backshore allowed to erode. Offshore reef added	1.18 (sand), 0.79 (reef)	4	2010, 2043, 2072, 2096	
3	Hold the Line	At the seawall, including addition of armor where it currently does not exist.	1.18	N/A	N/A	
4(i)	Hold the Line	At selected seawall/revetment locations through maintenance.	0.38/0.17	N/A	N/A	
4(ii)	Sand Placement	100' sand placement the first year, and then every time the beach width falls below the minimum beach width. Allow backshore to erode.	0.76	7	2010, 2025, 2042, 2057, 2071, 2085, 2098	

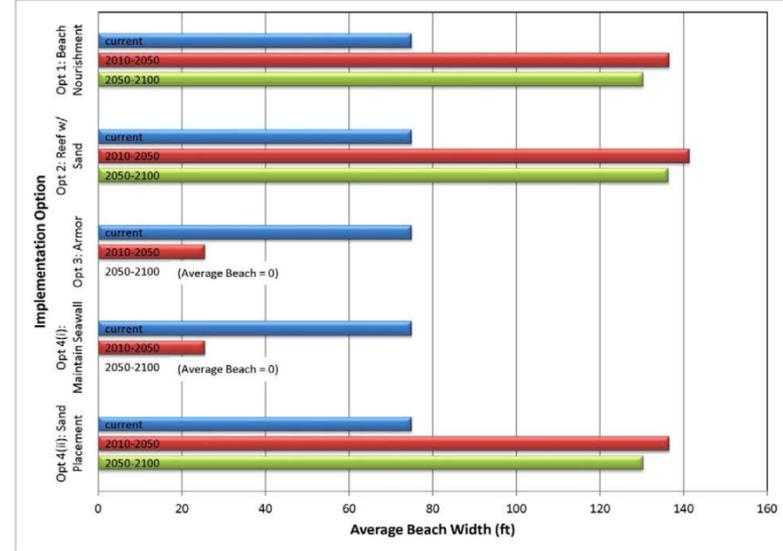
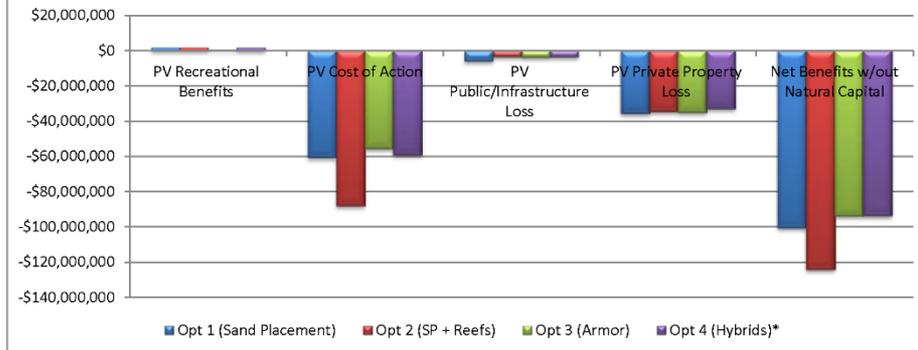
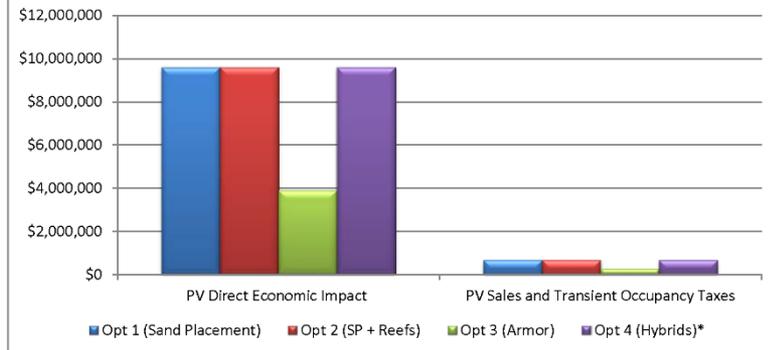


Photo Credits: (left) Elena Vandebroek, (right) Elena Vandebroek

Benefits and Costs (2013-2050, present value)



Revenue of beach visitors (2013-2050, present value)



Manor District Alternatives

Measure	Description	Sand Placements by 2100
Sand Placement	Within a Managed Realignment Strategy, 100' sand placement the first year, and then every time the beach width falls below the minimum beach width. Backshore allowed to erode	7
Sand Placement with Artificial Reef	Within a Managed Realignment Strategy, 100' sand placement the first year, and then every time the beach width falls below the minimum beach width. Backshore allowed to erode. Offshore reef added	4
Hold the Line	At the seawall, including addition of armor where it currently does not exist.	N/A
Managed Realignment	See Above	

Governance

- No action
- Coordinating network
- Existing jurisdiction(s) as lead CRSMP agency
- Special District
- Joint Powers Authority



Comments and Clarifying Questions



Possible Discussion Questions

- Does the draft SFLC CRSMP achieve its intended purpose?
- Is the information in the draft SFLC CRSMP still current and useful?
- Is the information in the draft SFLC CRSMP consistent with other related plans and efforts? Should any information be changed to make it more consistent?



Next Steps



Next Steps in the SFLC CRSMP Process

- Accepting comments through February 3rd
- Public meetings: January 14th in SF and January 21st in Pacifica
- Meeting in late January with jurisdictions to discuss governance
- CSMW will incorporate public comments into final version of Plan (March 2016)



How to Provide Comment

- Submit a written comment form at the public meetings
- Complete the online comment form at www.surveymonkey.com/r/SFLCCRSMPComment
- Email comments directly to:
jgolomb@kearnswest.com
- Send comments via postal mail to:
Kearns & West, Attn: Julia Golomb
475 Sansome St., Suite 570
San Francisco, CA 94111



Thank You!

Contact

www.sfestuary.org/coastal-regional-sediment-management-plan-2015-16

CSMW

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