

sand and the city

San Clemente's Quest
for Beach Nourishment

Orange County Coastal Coalition

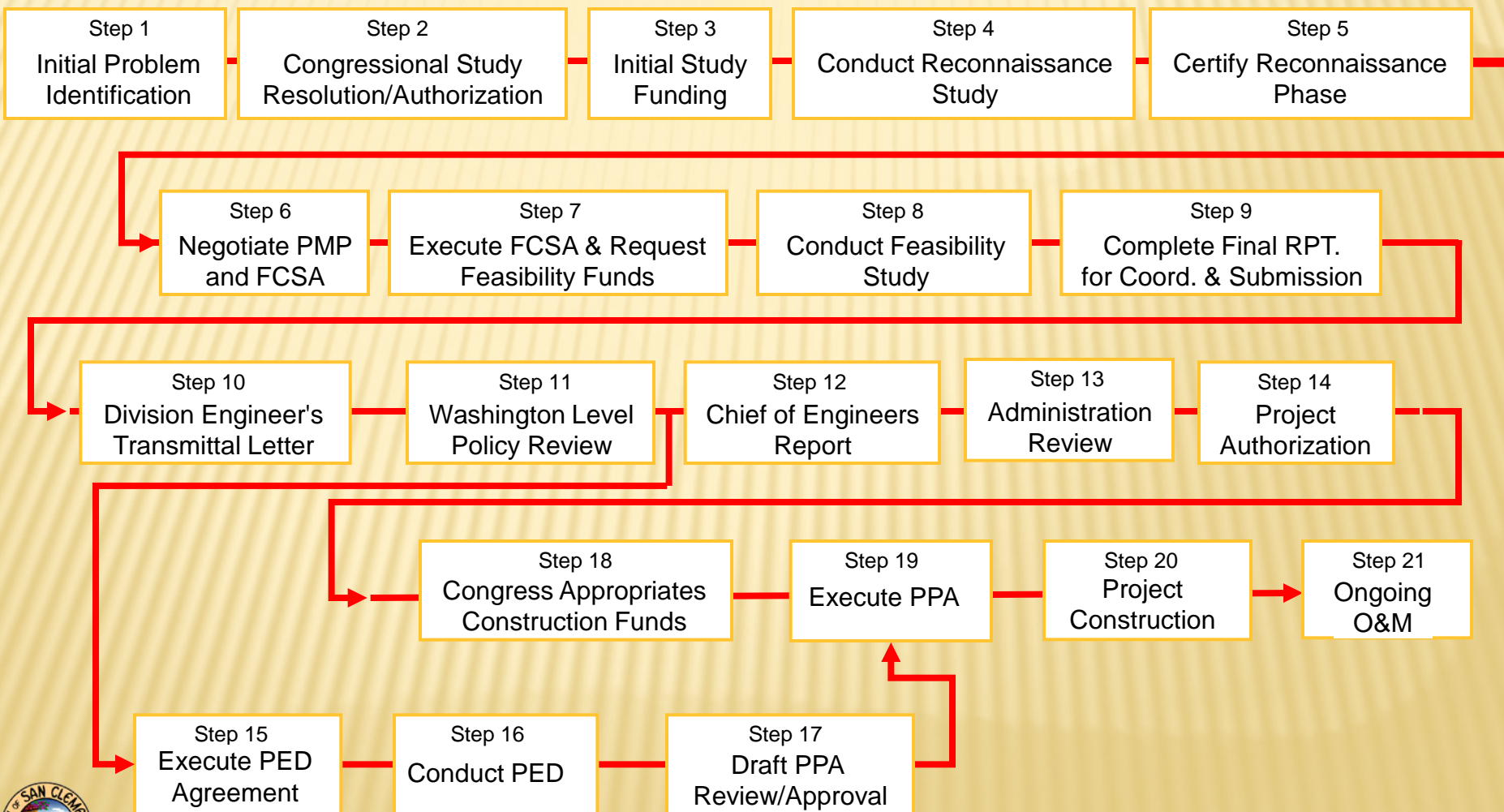
July 28, 2011

VISION

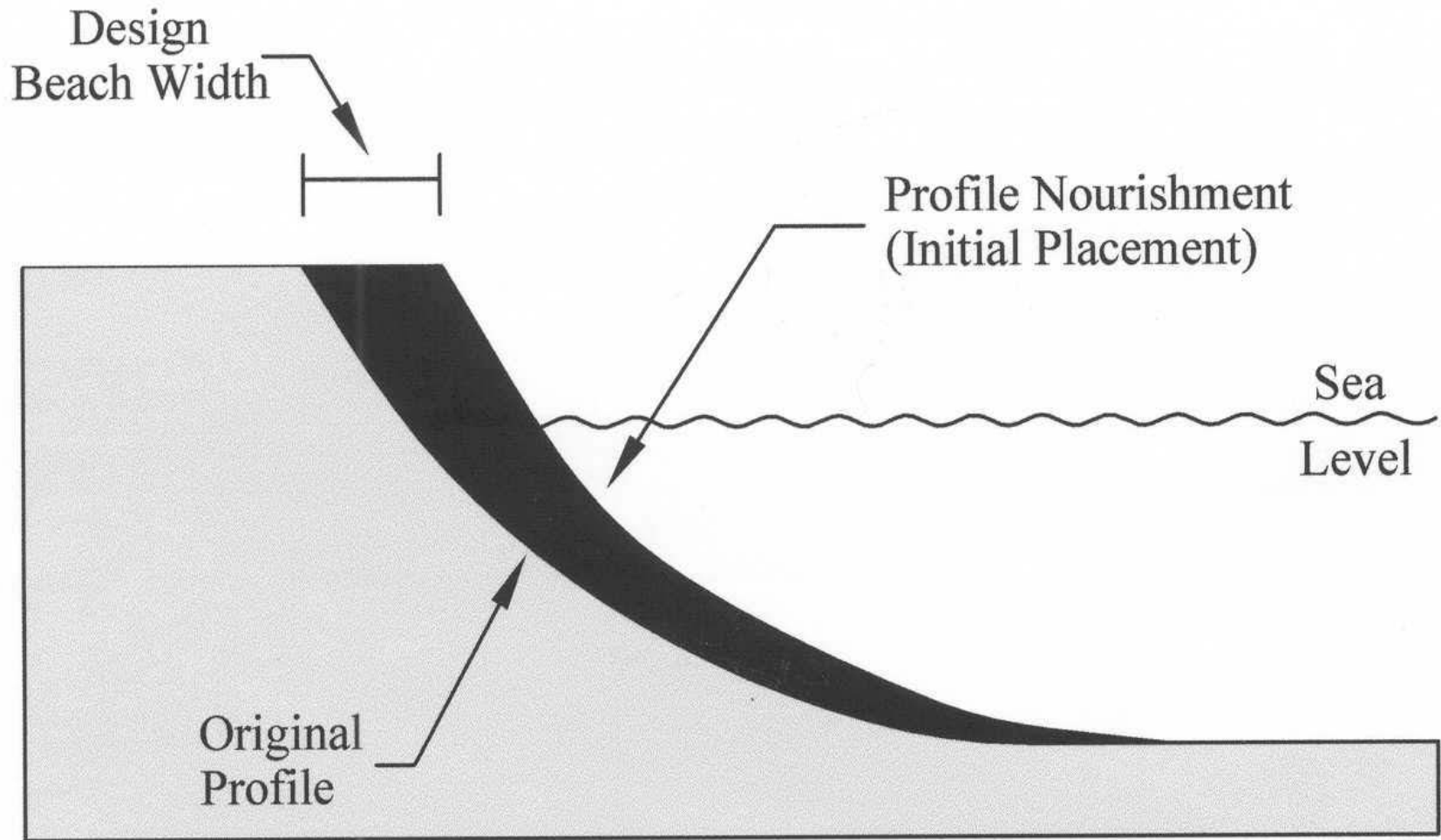


QUEST

U.S. Army Corps of Engineers Civil Works Project Delivery Process



BEACH NOURISHMENT



Project Area

- “Reach 6”
- 3,412 feet
- Linda Lane
to South T-
Street



Recommended Plan

- 15 m (50 ft) width
- 251,000 cubic yards
- 6-year fill cycle
- B/C ratio = 1.4



BORROW SITE



WHAT WILL THE BEACH LOOK LIKE?

View: T-Street Overpass north toward the Pier



AFTER

WHAT WILL THE BEACH LOOK LIKE?

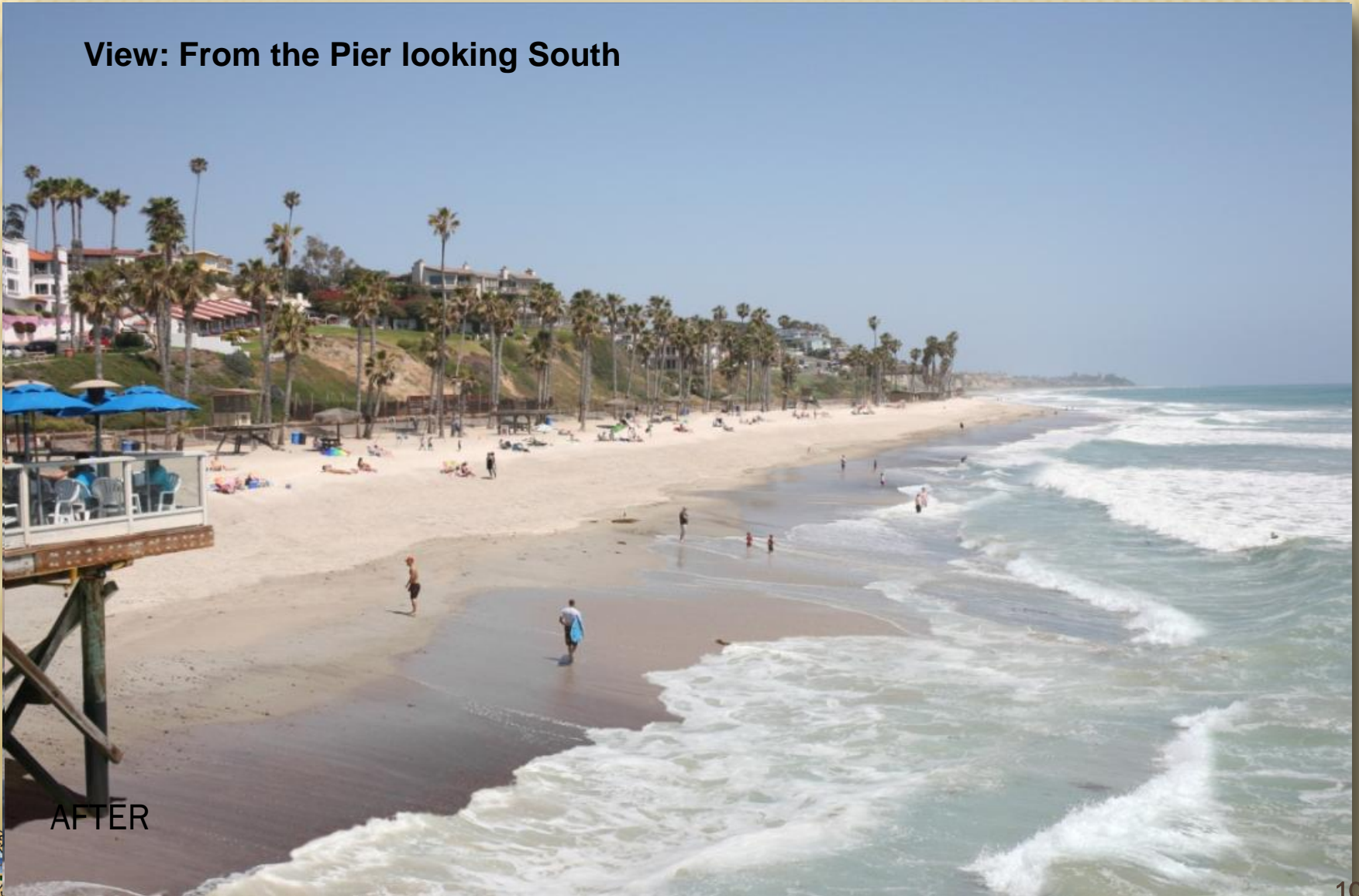
View: T-Street Restroom north toward the Pier



AFTER

WHAT WILL THE BEACH LOOK LIKE?

View: From the Pier looking South



AFTER

WHAT WILL THE BEACH LOOK LIKE?

View: Looking South from South of the Marine Safety Bldg



AFTER

ENVIRONMENTAL MONITORING

- Compare rocky reef in Project Area (T-Street reef) with control reef outside of the Project Area (Mariposa Point)
- 2 years prior to construction and 2 years post construction
- Parameters
 - Surfgrass density
 - % cover surfgrass, sand and rock
 - Sand depth



PHYSICAL MONITORING

- Beach Width Measurements – monthly surveys
- Topography and Bathymetry – twice per year
- Video Based Photogrammetry



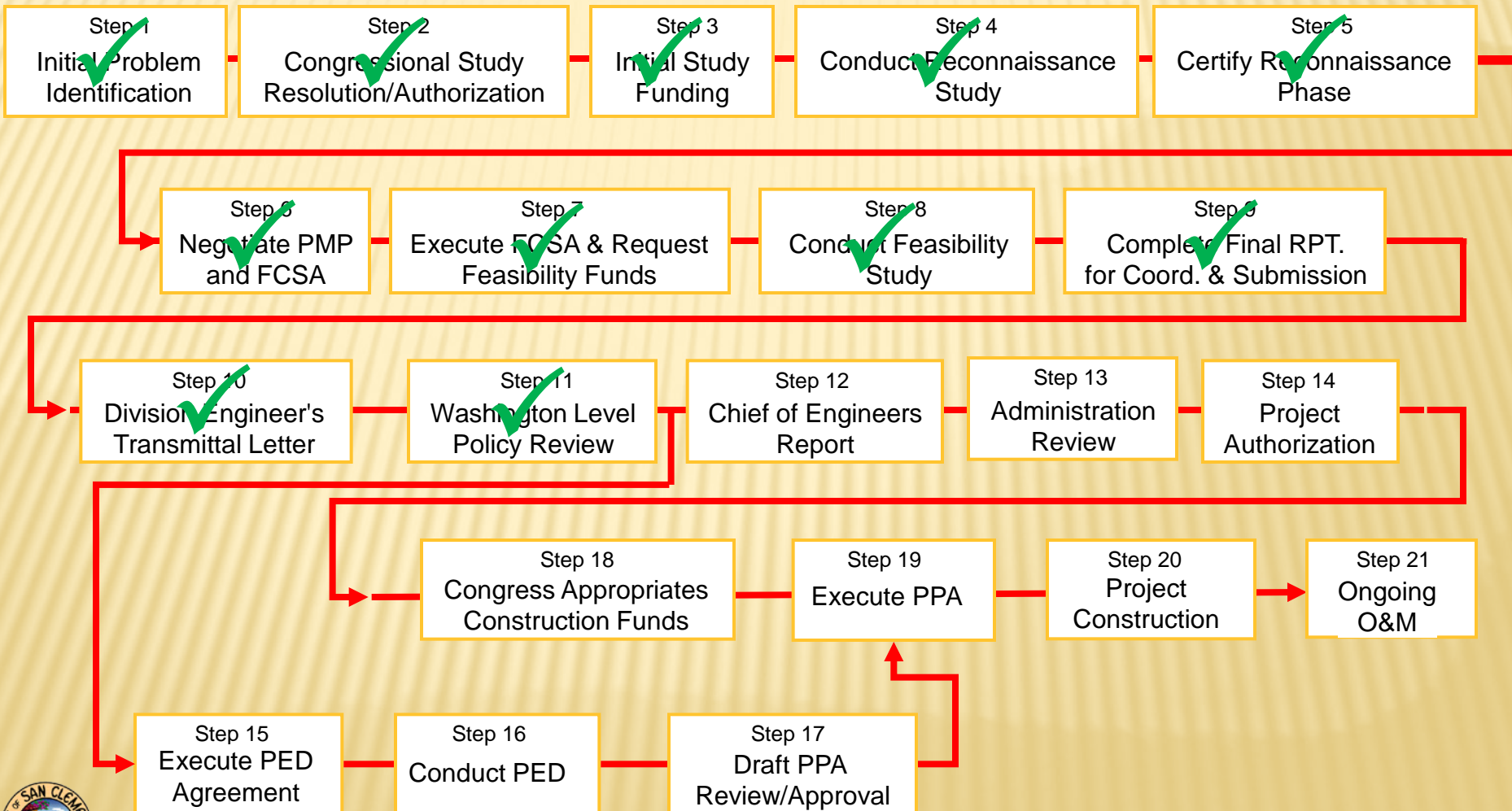
FISCAL SUMMARY

Phase	Cost Share	Federal Share (millions)	City Share (millions)	Total (millions)
Recon Study	100% Federal	\$0.1	\$0	\$0.1
Feasibility Study	50% Federal 50% City	\$1.6	\$1.6	\$3.2

Initial Beach Nourishment	65% Federal 35% City	\$7.3	\$3.9	\$11.2
Ongoing Beach Nourishment	50% Federal 50% City	\$71.2	\$71.2	\$142.4
Total Beach Nourishment		\$78.5	\$75.1	\$153.6



CURRENT STATUS



PROJECT MILESTONES

Recon Study	Mar 2000
F1 Start Feasibility Study	Sep 2001
F2 Public Workshop	Jan 2002
F3 HQ Scoping Meeting	Dec 2004
F4 Alternatives Review Conf.	July 2008
F4A Alt. Formulation Briefing	March 2010
F5 Draft Report Public Review	Aug-Sep 2010
F6 Public Meeting	Aug 2010
F7 Corps HQ Review Board	May 2011



FEASIBILITY STUDY SCOPE

Project Management Plan Date	Estimated Study Cost	Estimated Study Completion
Sep 2001	\$1.7 M	Oct 2004
Aug 2005	\$2.1 M	Dec 2006
July 2006	\$3.2 M	Aug 2008

LESSONS LEARNED (SO FAR)

- Be an **ACTIVE** Local Sponsor
- Engage elected representatives
- Keep stakeholders informed

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