

Stormwater Treatment and Habitat Creation
through Reconstruction of SF Natural
Wetland Landscapes at Hunters Point Parcel
E/E2

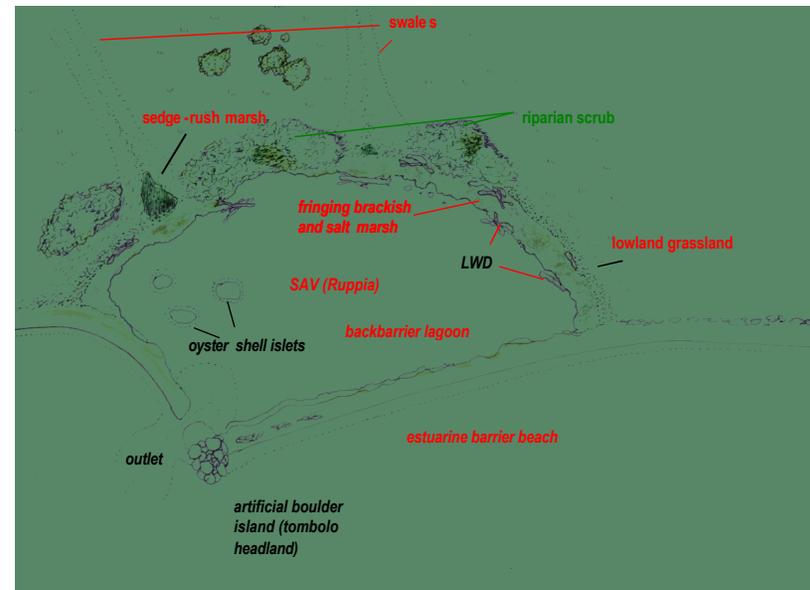
November xx, 2010

Roger Leventhal, P.E.

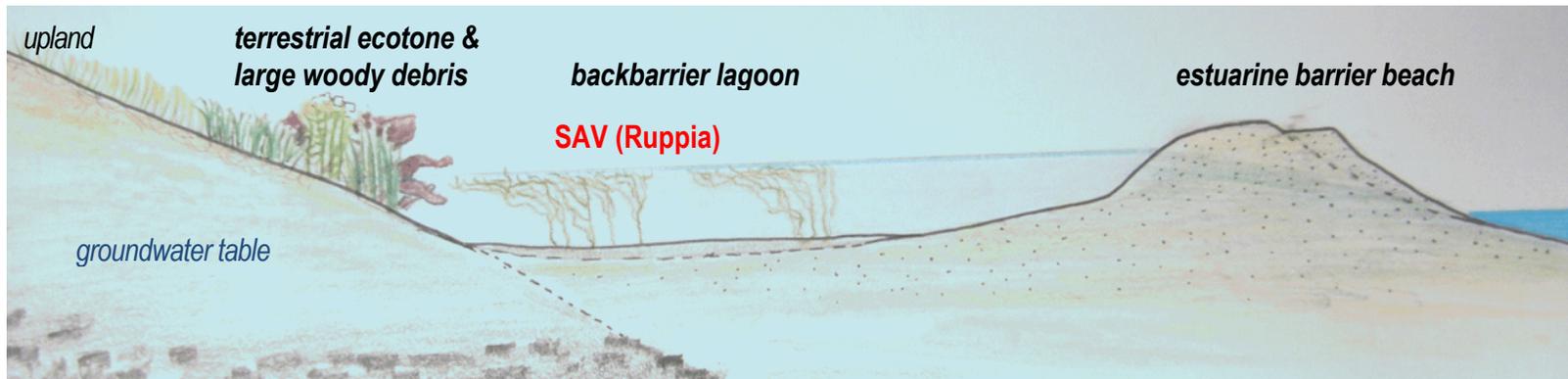
Peter Baye, PhD

Coastal Lagoon and beach

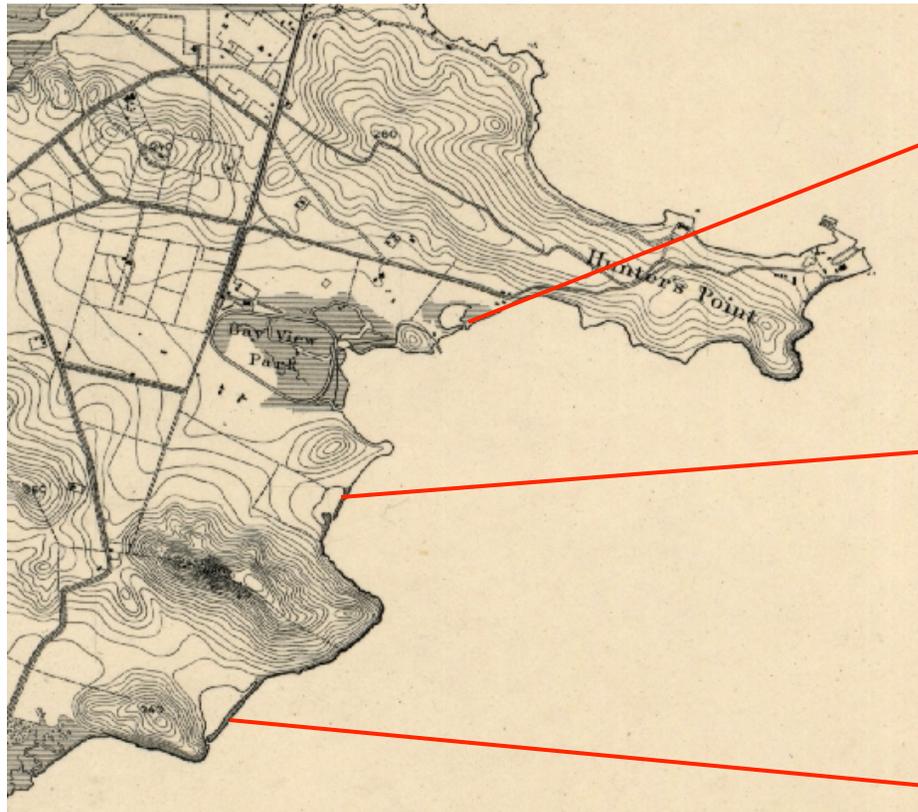
- Coastal lagoon with backbarrier beach (designated wetland type)
- Wildlife viewing habitat
- Ruppia (native submerged salt tolerant aquatic plant) lagoon
- Adjust to wave energy and slr



Section through lagoon and beach



historic evidence – US coast survey 1869





Parcel E2 existing beach



Site 3 beach near to proposed site



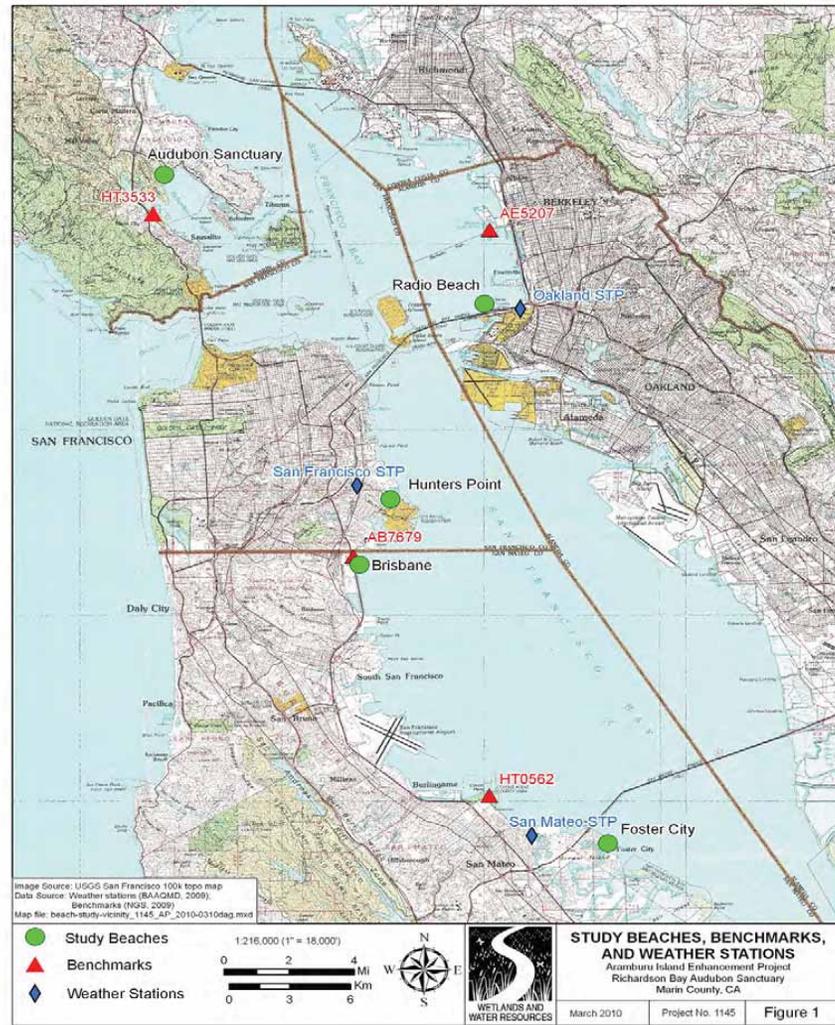
existing beach at
Site 3 - note
beach face
profile

Baye - Leventhal built
beach restoration project
at Pier 94

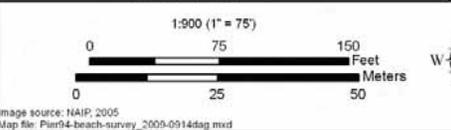
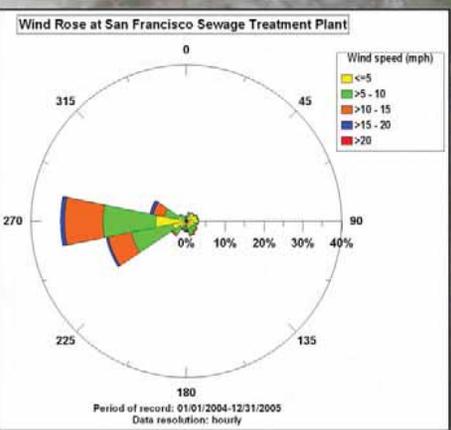
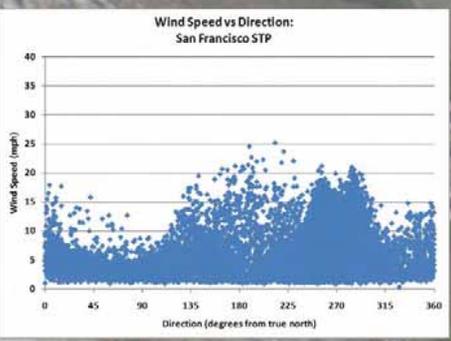
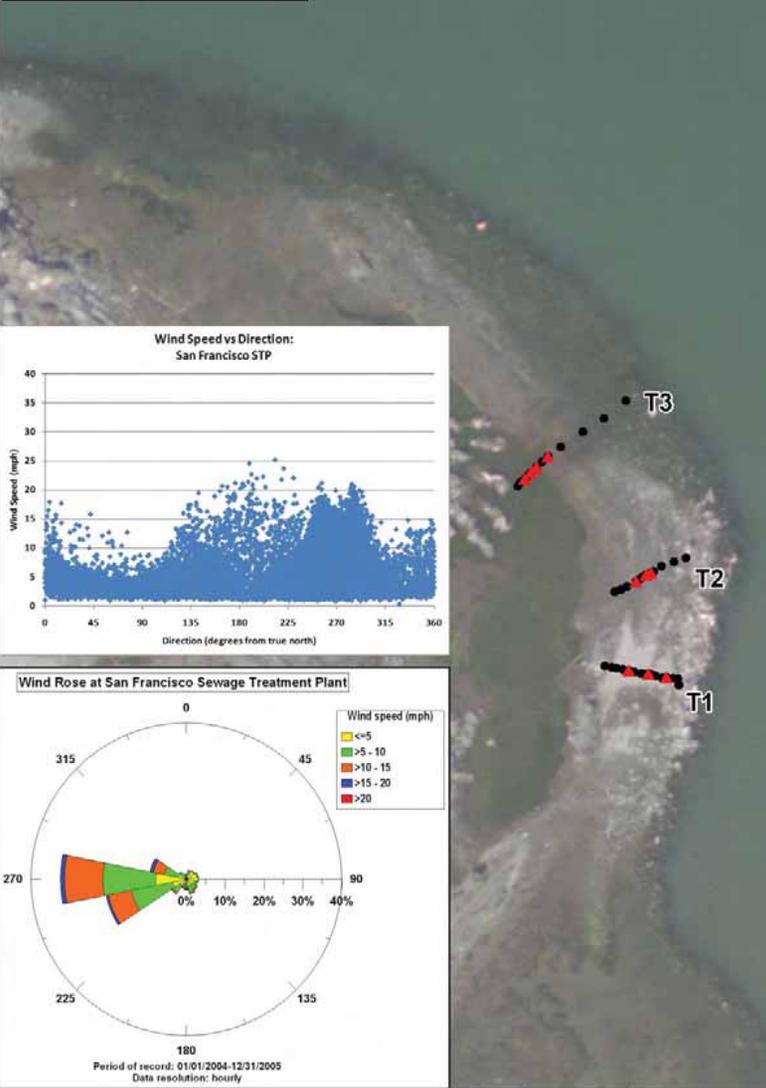


Bay beach reference site surveys

- Pier 94
- Radio Beach
- Sanctuary beach
- Brisbane
- Foster City



- Topographic survey points
- ▲ Grain size samples

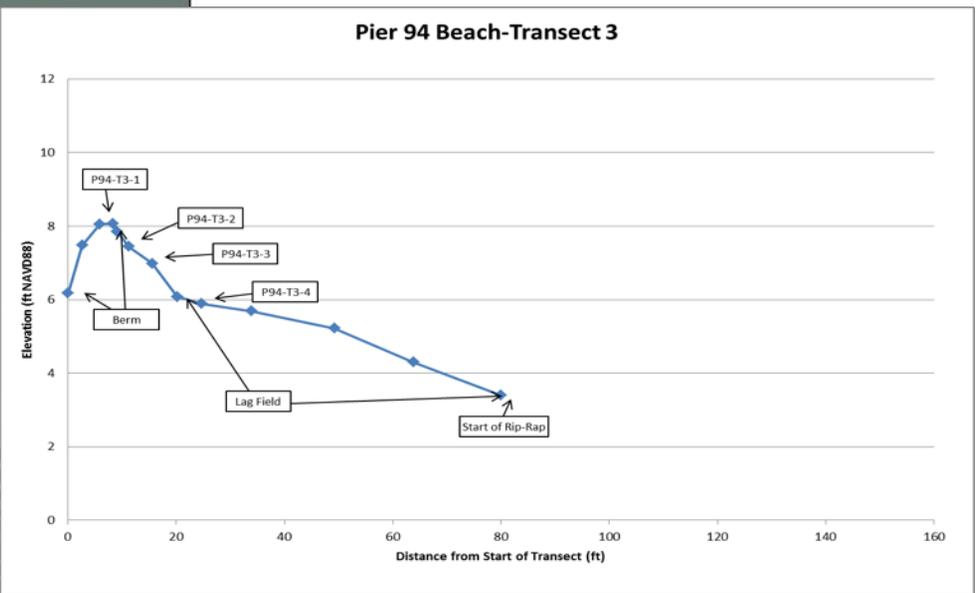
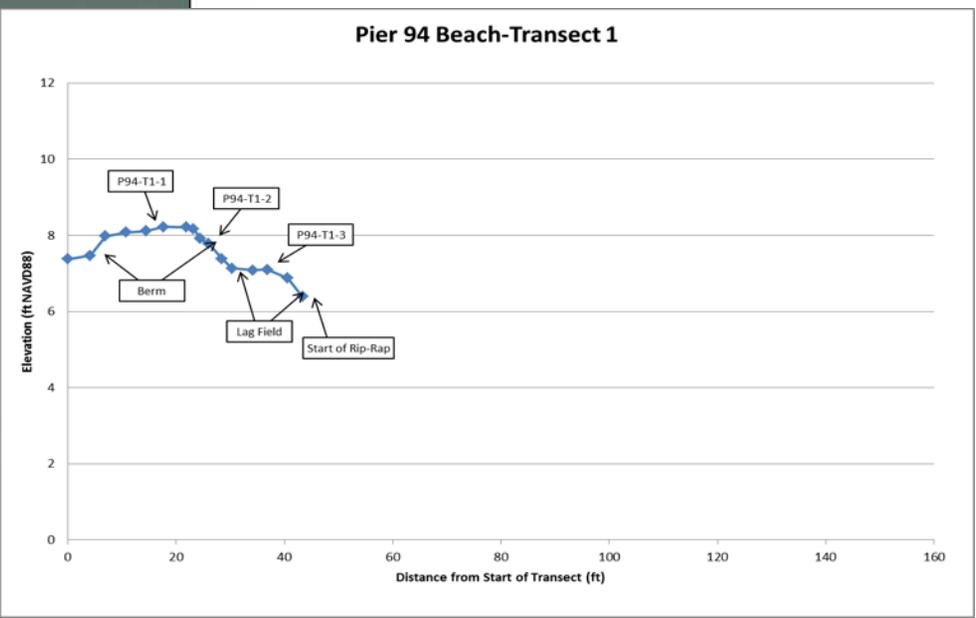


PIER94 BEACH AND V
Aramburu Island
Richardson Bay
Marin

WETLANDS AND WATER RESOURCES

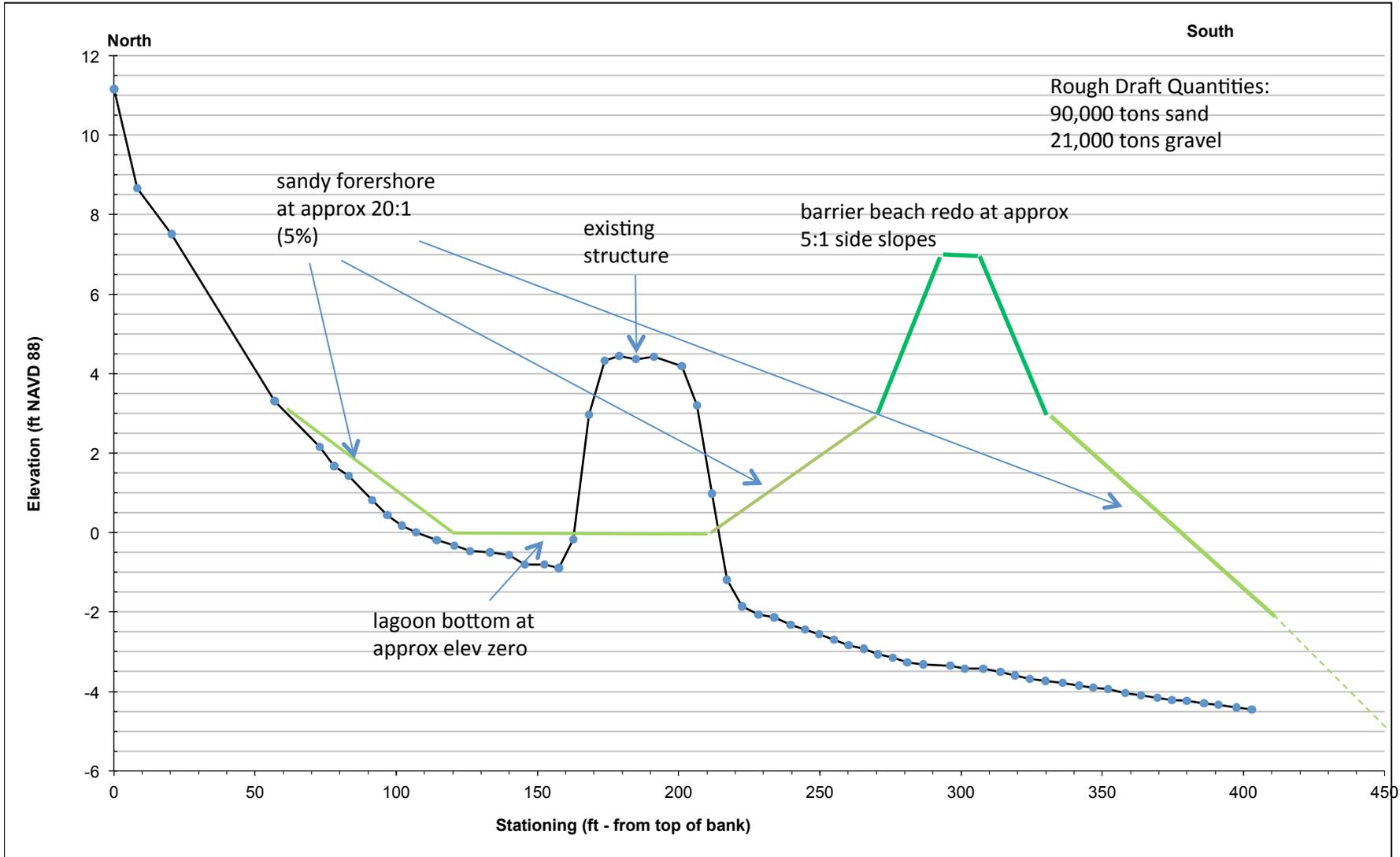
September 2009

Image source: NAIP, 2005
Map file: Pier94-beach-survey_2009-0914dsg.mxd

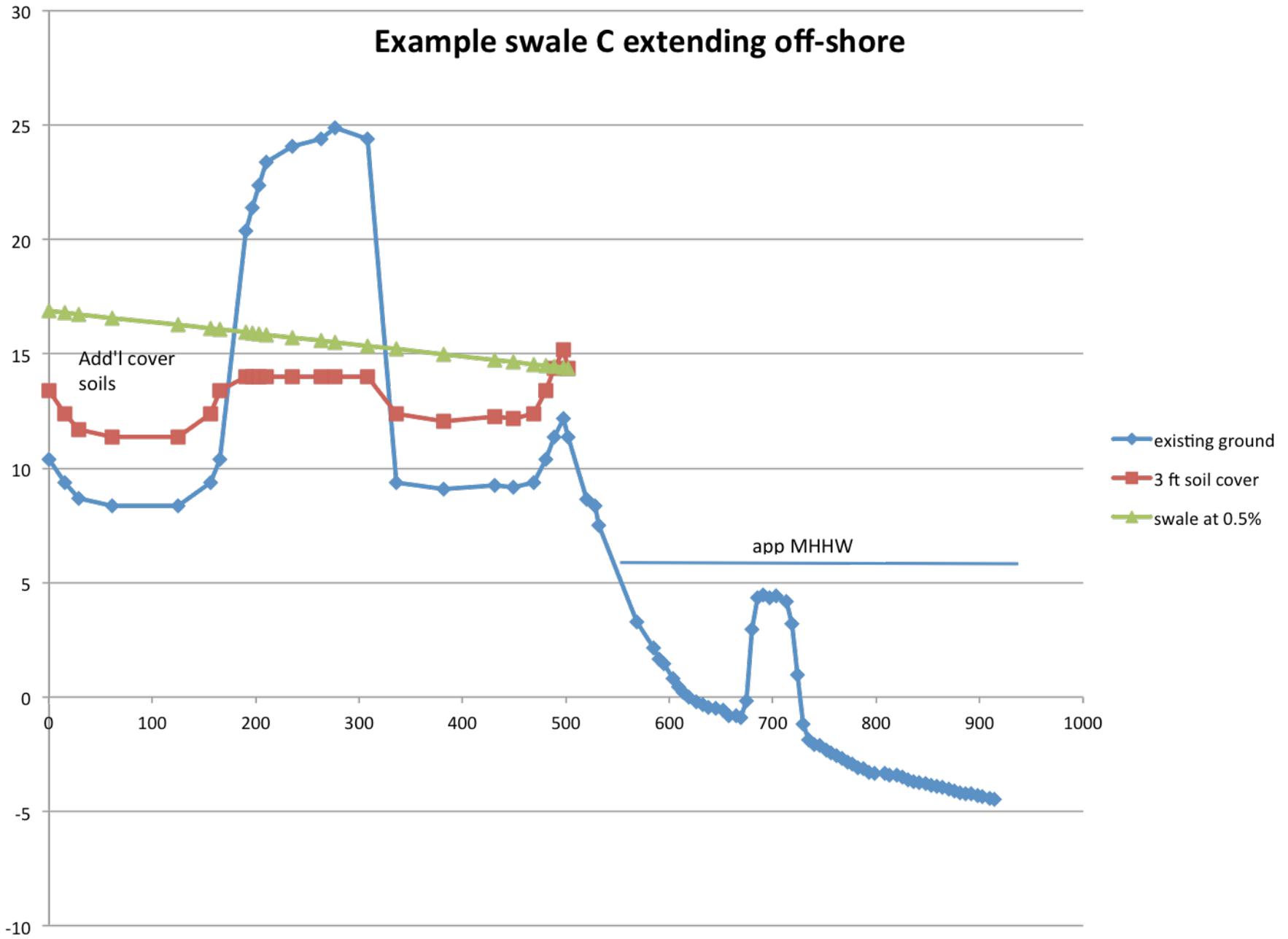


HP Beach and Lagoon Section





Example swale C extending off-shore



Lagoon and beach

- Coastal lagoon protective of Parcel F issues (additive fill design– no excavation)
- Meets goals for “living shoreline”
- Meets MM HY-14 (protection) and HY-12a.2 (slr)
- M-N 2009 report “*Parcels E, E2, and the Candlestick shoreline offer the opportunity of incorporating greater public access and use along the waterfront. The shallow water depths and mudflats fronting these portions of the project shoreline make it possible to incorporate a more eco-friendly approach to shoreline rehabilitation. These can potentially include tidal wetlands, beaches, stormwater treatment wetlands, and softer vegetated banks as opposed to conventional revetments or seawalls.*”