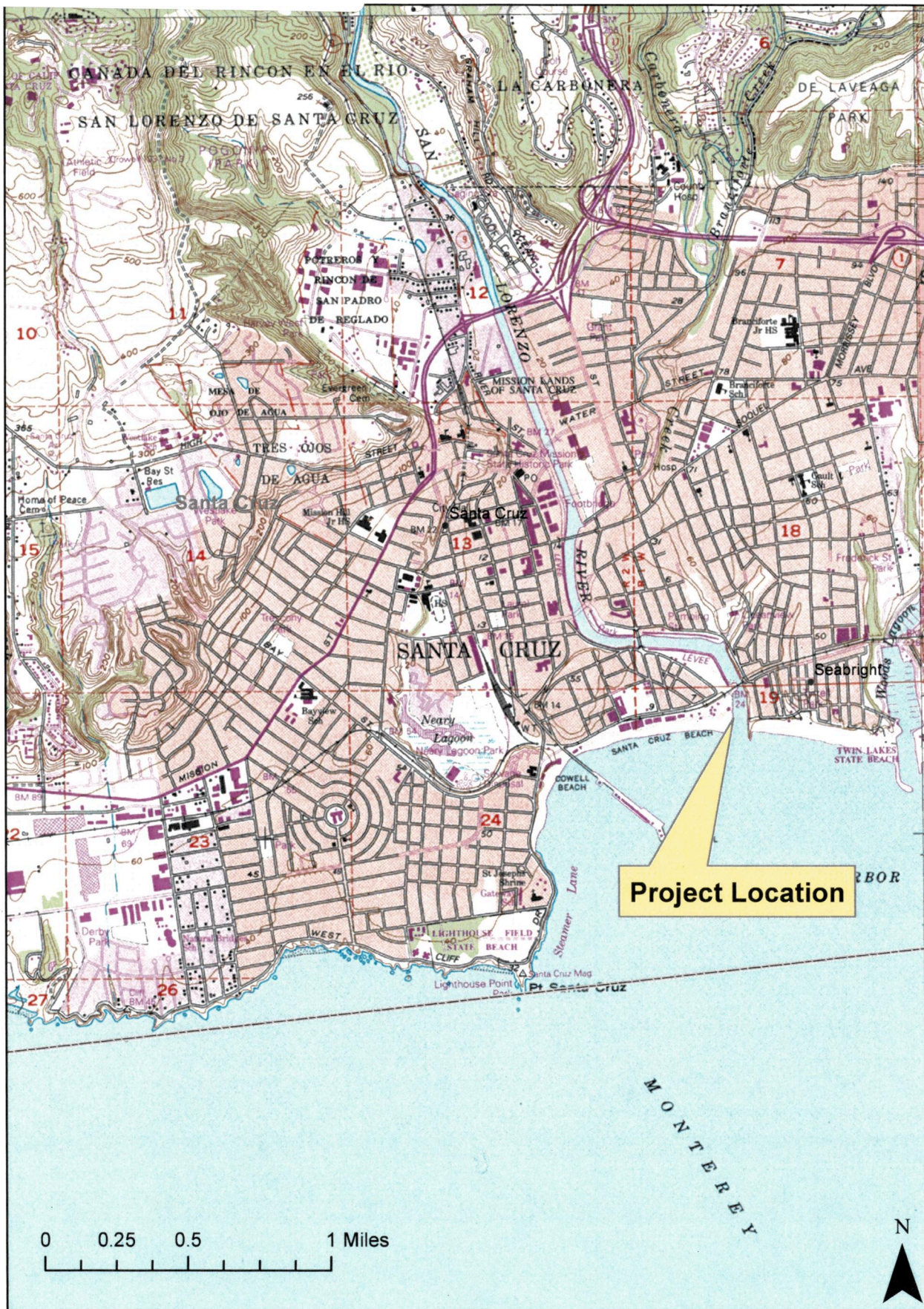
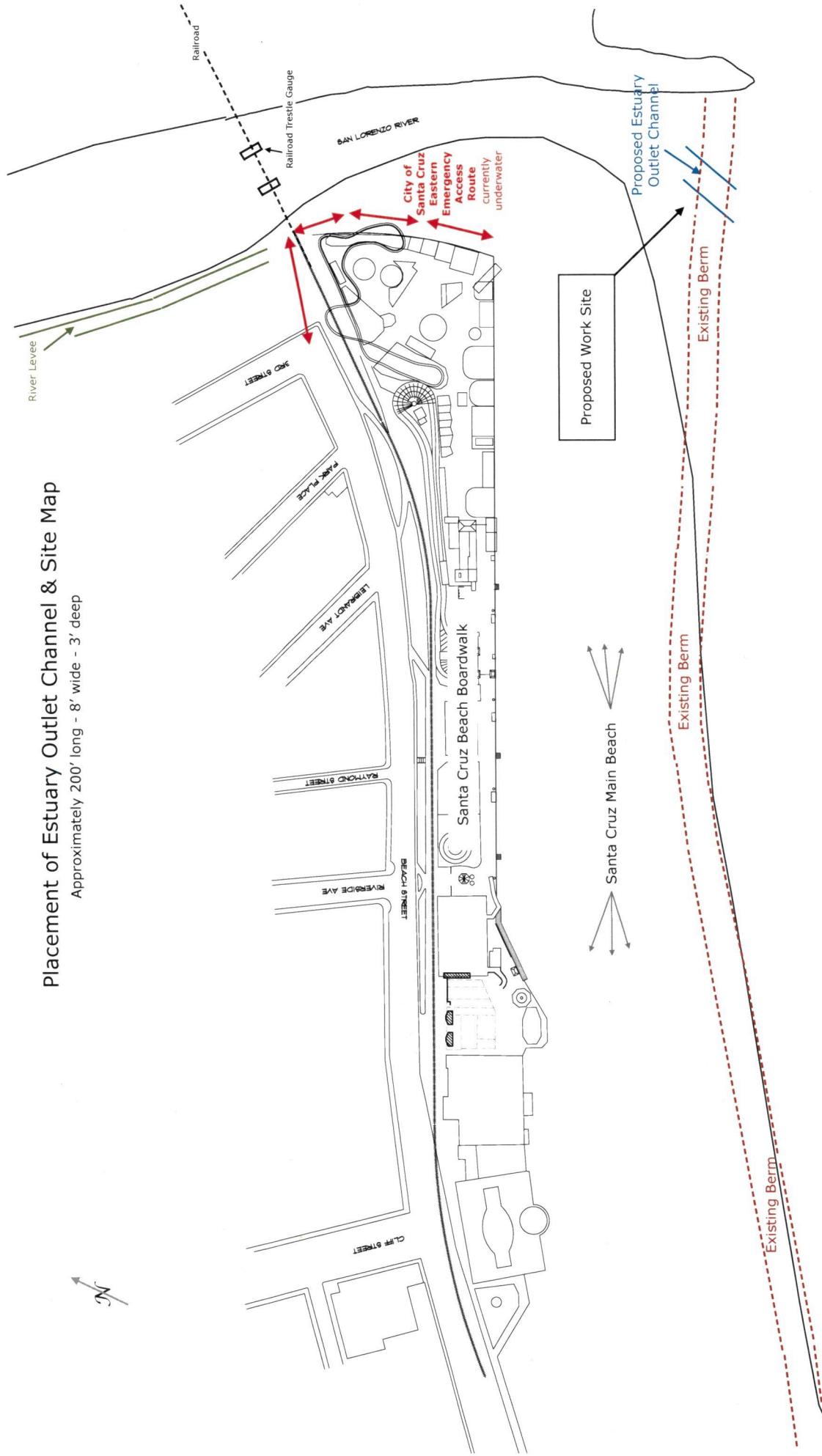


Figure 1. Project Location
Mouth of San Lorenzo River
City of Santa Cruz, Santa Cruz County, California
PUBLIC NOTICE NUMBER: 2012-00092S



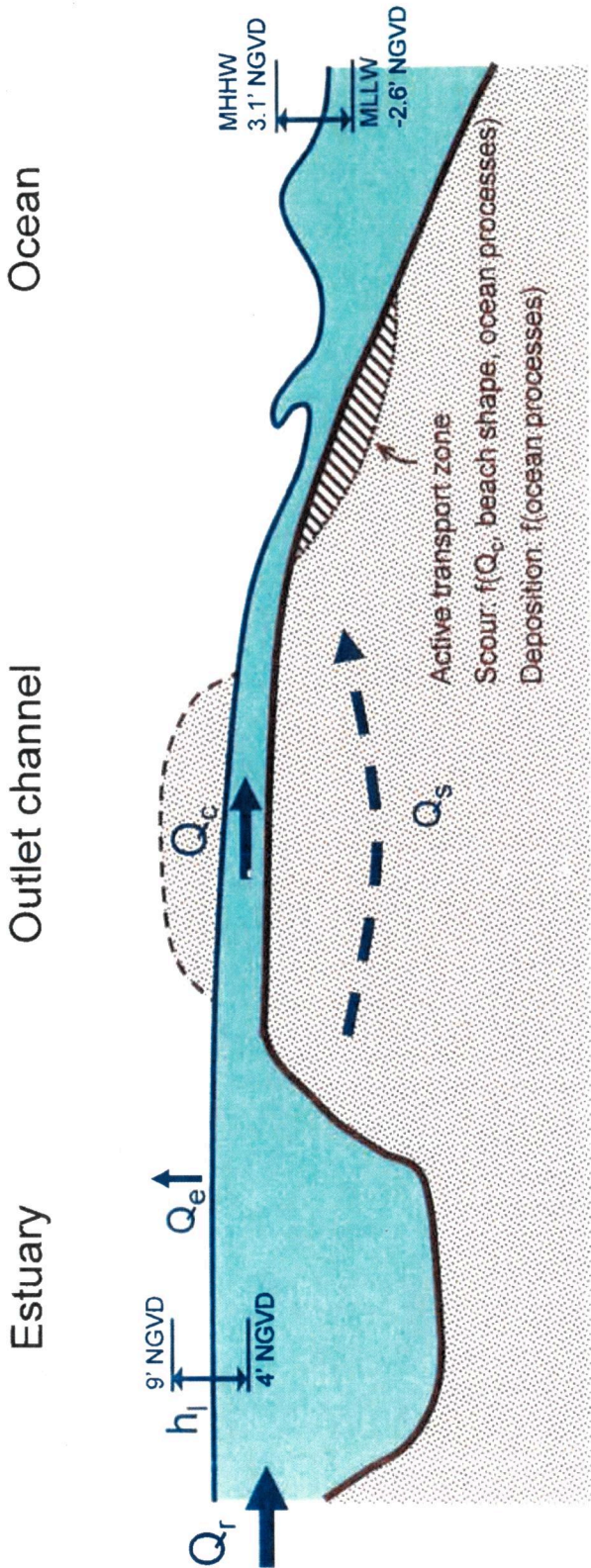
Placement of Estuary Outlet Channel & Site Map

Approximately 200' long - 8' wide - 3' deep



Santa Cruz Seaside Company - Santa Cruz Beach Boardwalk
 400 Beach Street
 Santa Cruz, Ca 95060

Figure 2. Project Plan and Drawing
Construction of Temporary Estuary Channel
Mouth of San Lorenzo River
City of Santa Cruz, Santa Cruz County, California
PUBLIC NOTICE NUMBER: 2012-00092S



Parameters

- h_1 = lagoon water level
- Q_r = river discharge
- Q_c = outlet channel discharge

Processes

- $Q_r = Q_c + Q_e + Q_s$ (averaged over days)
- No sediment transport within outlet channel
- Active sediment transport outside outlet channel

Conceptual model – Target conditions

Figure 3. Project Plan and Drawing
 Construction of Temporary Estuary Channel
 Mouth of San Lorenzo River
 City of Santa Cruz, Santa Cruz County, California
 PUBLIC NOTICE NUMBER: 2012-00092S

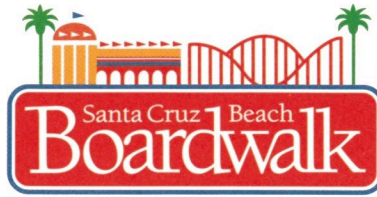


EXHIBIT B.2 Prescribed CDFW Protocol

June 27, 2014
Melissa A. Farinha
California Department of Fish and Wildlife
Environmental Scientist – Santa Cruz County

Following is a list of California Department of Fish and Wildlife (CDFW) recommended minimization measure developed from our initial site visit yesterday morning:

- The channel should be placed at an angle from the shallowest area of the lagoon and should face the appropriate wave-action direction to aid in re-closure.
- Excavation should begin at the ocean side and continue back towards the lagoon.
- Sand bar breaching should be performed during the appropriate period within the daily tide cycle to avoid large differences between lagoon and ocean water surface elevations to keep the lagoon from draining at a pace that would be detrimental to the fishery resource.
- Water quality profile sampling should be done at 0.5-meter intervals in the deepest area (near the train trestle bridge) and should be coordinated with current City of Santa Cruz lagoon monitoring efforts. Samples should be taken immediately prior to breaching and for a period at a frequency appropriate to inform impacts assessment for planning and environmental review documents. Water quality parameters to be monitored include: temperature, dissolved oxygen, salinity, depth and upstream surface flow connectivity.
- A Qualified Fisheries Biologist should be on site during breaching activities to monitor for fish stranding.
- Notify CDFW immediately upon discovery of conditions that precipitate a breaching event. Notification should be via email and addressed to Brenda.Blinn@wildlife.ca.gov and Melissa.Farinha@wildlife.ca.gov.
- Water surface elevation should not be reduced to below the 5-foot mark at the staff place on the train trestle bridge.
- The sandbar at the river mouth should be built up to prevent ocean wave over-topping. Wave overtopping causes increases in lagoon water surface elevation and saltwater intrusion.
- Retaining the greatest amount of water depth within the lagoon should be achieved to the maximum extent feasible.
- The maximum amount of freshwater, which is located in the upper elevations within the water column at current conditions and includes inflow from upstream, should be maintained to the maximum extent feasible. CDFW recommends actively transferring water from the bottom elevation of the lagoon to the ocean in order to control water surface elevation in a manner that precludes conditions which precipitate a breaching event. Intakes would be required to meet NFMS fish screen criteria. This recommendation is not an acceptable solution for any future planning efforts.