

From Skeve Moore. SFB RWACB 2005.
 Peyton Slough Remediation -

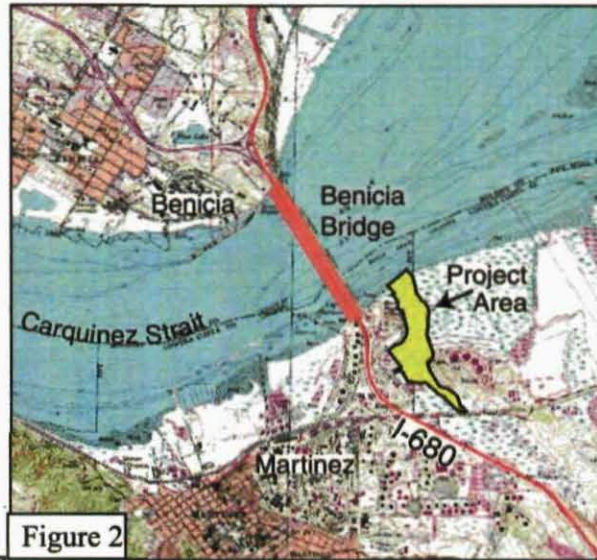
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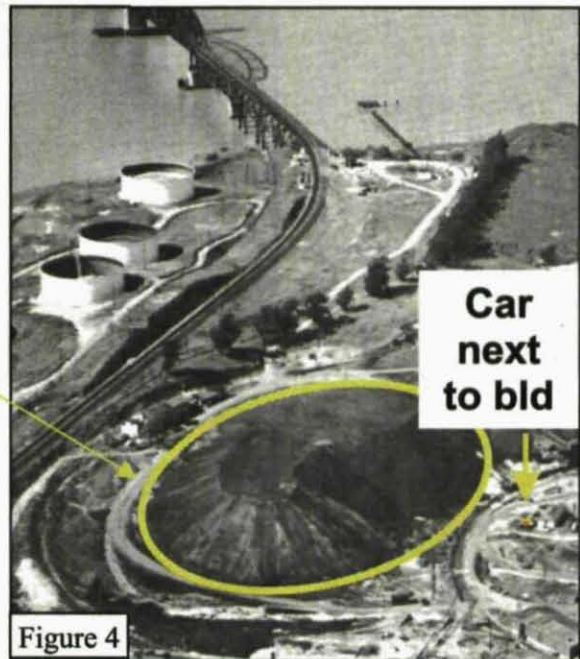


On Monday, December 6, 2004 Rhodia Inc. completed excavation of a new alignment for Peyton Slough, opening the channel to tidal influence from the Carquinez Strait. This event marked completion of the first phase of the Peyton Slough Remediation Project, located southeast of the Benicia Bridge in Martinez (Figs 1 & 2). Construction for the two to three year project began in May 2004, and once completed, will address one of the Bay Area's most significant Toxic Hot Spots.

The contamination of Peyton Slough occurred decades ago. From the turn of the century to 1958, the Mountain Copper Company (MOCOCO) operated a copper smelter on the property now owned by Rhodia. As part of the smelting activities, large piles of copper and zinc bearing ore, as well as slag and cinder material, were stockpiled throughout the property (Figs 3 & 4). Due to the placement of slag and cinders at the site, as well as direct industrial discharge to Peyton Slough, slough sediments contain extremely high concentrations of copper and zinc. Historic



flood and mosquito-control dredging of Peyton Slough resulted in placement of contaminated sediment along the side of the Slough (dredge piles), thereby also impacting the adjacent wetlands in Peyton Marsh.



In 1997, the Water Board's Bay Protection and Toxic Cleanup Program proposed to include Peyton Slough among sites named as Bay Area Toxic Hot Spots. In August 2001, the Water Board issued Site Cleanup Requirements to Rhodia to remediate Peyton Slough and the impacted wetlands. This initiated a multi-party effort to develop a long-term environmental cleanup plan.

pages 2-27 - 2-42
 More data: swrcb.ca.gov/bptcp/docs/dftcpv2.doc

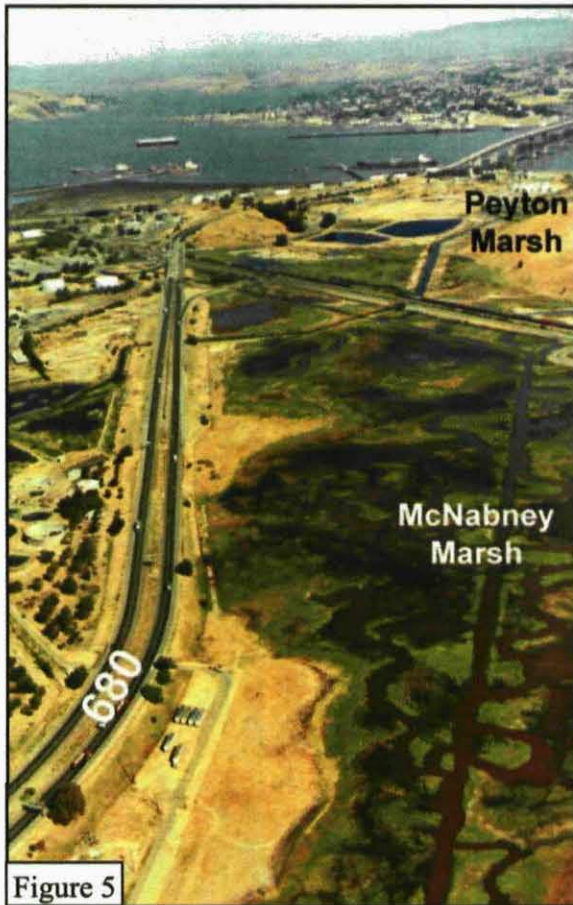


Figure 5

The Remediation Project involves several construction tasks. The first phase of construction, which has been completed, includes re-aligning the Slough to the east of its old alignment (Fig 6). The new channel is now located in relatively uncontaminated wetland habitat. The final moment of channel excavation is shown in Figure 7, where the last “plug” of earth is being removed. Water now enters the new alignment at the transition point, located at the southern boundary of the project site, near Waterfront Road. Water then flows north through the tide gate, eventually discharging at the Carquinez Strait (Figs 6 & 8).

Over the duration of the wet season, both the old and new channels will remain open. In summer 2005, Rhodia will begin the second construction phase of the Project, placing an engineered cap over the old channel (Fig 6). This will effectively contain the contaminated sediments in place so they are no longer

Rhodia, and its consultant URS, worked closely with the Board, other permitting agencies, and interested parties to design a remediation strategy that offers the best feasible solution to avoid future recontamination of this sensitive habitat. In addition, Rhodia’s construction plan includes many innovative design features to avoid and minimize environmental impacts, and a well-designed mitigation package to compensate for unavoidable impacts.

Key members in the Peyton Slough Technical Workgroup include representatives of the McNabney Marsh Management Advisory Committee (MMMAC). Peyton Slough is hydraulically connected to McNabney Marsh (Fig 5), and offers the only route by which fresh water can drain and saline water can flush McNabney Marsh. The MMMAC hopes that many of the compensatory mitigation features included in Rhodia’s mitigation package, such as increasing Peyton Slough’s channel capacity and enhancing the tide gate structure (used to control the upstream and downstream flow of water through the Slough), will ultimately improve the habitat of McNabney marsh.

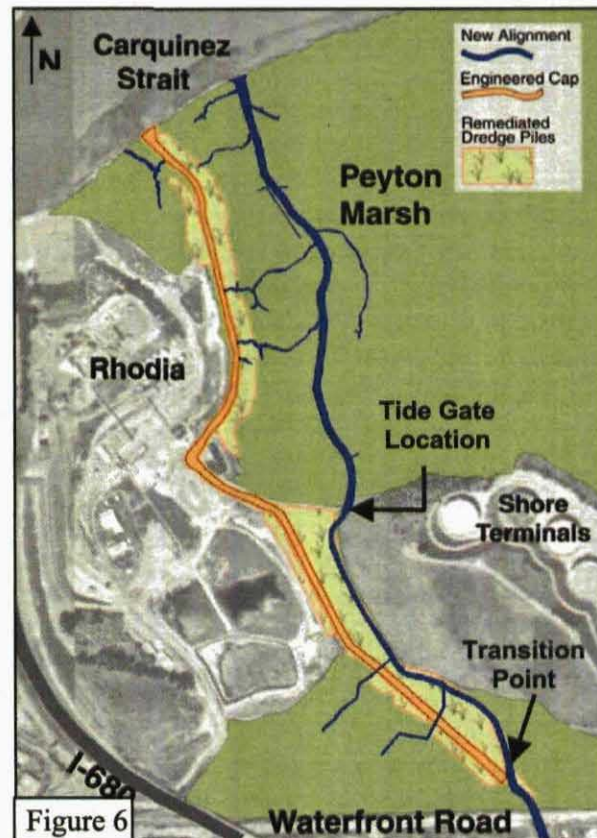


Figure 6

exposed to the environment. Much of the cap will be brought to marsh plain elevation and managed as wetland habitat. The final construction year may involve additional work on the cap, as well as confirming surface elevations necessary to promote the regrowth of native vegetation. Post-remediation monitoring will take place for a ten-year period following the completion of construction.

