

County: **Contra Costa**

Thomas Guide Location

Latitude N

Longitude W

USGS Quad: **Vine Hill**

3 8 03

122 03

NOAA Chart: **18656 Suisun Bay**

Last Page Update : 7/1/2005

SITE DESCRIPTION:

Site extends from the Tosco Avon terminal wharf west to Hastings Slough and includes all the marshes tributary to Hastings Slough including those south of Waterfront Road. Marshes from Pt Edith to the Avon Wharf are property of Department of Fish and Wildlife (700+ acres), but the marshes around Hastings Slough and much of the tributary marshland (2000+ acres) is military property and entry is prohibited without prior clearance. This marshes have a large tidal exchange volume, particularly Hastings Slough marshes. The DFW marshes drain directly to the bay via 10 tidal sloughs. Hastings Slough is very sinuous and has many tributary channels including Mt. Diablo Creek. Throughout the marsh there is an extensive network of mosquito abatement channels which connect the freshwater and brackish marshes between. Most of the marsh is pickleweed, but there are large stands of tules and standing ponds. Portions of the property south of Waterfront Rd and just east of the Avon refinery are refinery property.

SEASONAL and SPECIAL RESOURCE CONCERN

The marshes are an "A"-priority all year. The area is important to migratory birds in the spring and fall. Endangered species are present year-round.

RESOURCES OF PRIMARY CONCERN

Emergent and tidal channel marshes are of highest concern because of immediate vulnerability to spills and opportunity to spread oil extensively though the marsh because of large tidal prism. Some of the internal marshes are connected by flood control structures and can be closed to exclude oil conveyance to interior marsh. Marsh types include emergent, high saltgrass, pickleweed, tule, brackish ponds, and pockets of freshwater marsh.

The endangered California clapper rail, threatened California black rail, saltmarsh common yellowthroat, and Suisun song sparrow are found here.

The marshes are inhabited by the endangered salt marsh harvest mouse.

Several rare plants occur in this site. Mason's lilaeopsis is found in the splash zone along the marsh front. The marshes also contain the rare plant species soft bird's beak, and Delta tule pea occurs on the Seal Islands.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Bryan Much, Sonoma State College (707) 332-1117) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
B		NOAA, National Marine Fisheries Service	(562) 980-3232
	Region 3 DFW Office	CA Dept. of Fish & Wildlife	(707) 944-5500
B	John Henderson F/W Biologist	US Fish & Wildlife Service, Environmental Contam	(916) 414-6595

ADDITIONAL SITE SUMMARY COMMENTS:

2-605 -A Site Strategy - Hastings Slough & Point Edith Marshes

County and Thomas Guide Location

Contra Costa

NOAA CHART

18656 Suisun Bay

2-605 -A

Latitude N

3 8 03

Longitude W

122 03

Last Page Update : 10/1/2005

CONCERNS and ADVICE to RESPONDERS:

The prime concerns are oil penetrating the marsh up tidal sloughs on tidal currents, particularly Hastings Slough, and oil saturating marsh vegetation on exposed marsh fronts and margins. Exclusion is first priority: to Hastings Slough and small channels. Next priority is to deflect oil away from these inaccessible marshy shores. During response be aware that there are very small rare plants and mammals at the shoreline. So, minimize foot traffic. Avoid trampling vegetation and avoid trampling oil into mud.

HAZARDS and RESTRICTIONS:

Some of the waterfront has very shallow mudflats. There are submerged obstructions in Hastings Slough for about 50 yds south of bridge overcrossing.

SITE STRATEGIES

Flood currents in tidal channels are too great to exclude oil once it has entered the channels. Exclusions must be set to keep oil from being pulled into the mouths of channels using chevron exclusions anchored well away (both to each side and in front) from channel openings. Waters are very shallow throughout except at Point Edith and within tidal channels.

Strategy 2-605.1 Objective: Exclude oil from Hastings Slough and tidal channels to prevent oil from being carried into marsh on flood tides. Revised 011305.

Exclude oil from entering all tidal sloughs using chevron booming configurations, including center anchors, and anchor boom ends well outside channel mouths to avoid entrainment and short circuiting around boom ends.

a) Hastings Slough: 1100' 8X8+ deployed in a modified chevron beginning well to the west (200'+) of the mouth. Back with sorbent boom. 3/22+/danforths.

b) The 2 sloughs just east of and one at Pt Edith: (400' 9X9+ and 1/22+ & 2/12+ danforths total.) Back with sorbent boom.

c) The ten tidal openings west of Pt Edith: 100' 4X4+ for each opening except #7 (from west) requires 200' (1100 total). Back each with sorbent.

Strategy 2-605.2 Objective: Deflect oil away from shoreline for sites 2-605 and 2-607 on flood tide.

Deploy 2400' deflection boom from just west of Pt Edith past channel marker R2 and into channel toward channel marker G3.

Strategy 2-605.3 Objective: Back-up of Exclusion booming of .1 strategy for wave conditions: if waves or chop is likely to wash oil over boom.

a) Hastings Slough: deploy a second layer of boom (800' 4X4+) close behind to catch and exclude over wash. 3/12+/danforths.

b) The 2 sloughs just east of and one at Pt Edith: (400' 4X4+ and 2/12+ danforths total.) Back with sorbent boom

c) The ten tidal openings west of Pt Edith: 100' 4X4+ for each opening except #7 (from west) requires 200' (1100 total). Back each with sorbent.

Strategy 2-605.4 Objective: Marsh front protective booming: If there is threat of heavy oiling and saturation of the marsh front, and when such deployment will not preclude defending other sites with Strategic Objectives 5 and 6 (seek concurrence of the trustee stratigist).

Deploy protective boom along the marsh front from the Tosco Wharf to the US Navy piers and linking with existing boom deployments as convenient: an additional 7,000 ft of harbor boom and ten additional anchors will be required in combination with boom already deployed in strategies .1 and .2. (A similar strategy for the deployment of exclusion boom at this site is illustrated in Potential Oil-Spill Protection Strategies for San Francisco Bay, CA (Hayes and Montello, 1994).)

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment and kinds	staff deploy	Staff tend
2-605.1	1500	1100		2300	38 5/22+ & 11/12+ danforth, 22 stakes	2	6		bboat: shallow, strandable. Stakes	18	
2-605.2	2400				6 5/22+/danforths + 20'chain	3	0			9	
2-605.3	0	2300	1000	0	5 12+/danforths	0	0	0	0		
2-605.4	7000				10 10/22+/danforths	4	2		bboats: very shallow, groundable.	14	

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

By boat, the site is east of the Benicia Bridge from the Avon Refinery wharf to the Navey Piers. By vehicle exit Hwy I-680 at Marina Vista (first exit south of Benicia Bridge - Waterfront Rd) and proceed west to Avon Refinery gate; request access and proceed east: Marina Vista (Waterfront) Road is blocked at the Hastings Slough Bridge by a Weapons Station locked gate. Important: Permission to enter eastern portion of the area must be obtained from the U.S. Naval Weapons Station

Concord. By arrangement with Weapons Station Security only, access from Highway 4 to CNWS exit north on Port Chicago Highway to Base Gate to request entry: Contact USCG IMD 415-399-3543. Site extends from the Tosco Avon terminal wharf west to Hastings Slough and includes all the marshes tributary to Hastings Slough including those south of Waterfront Road. Marshes from Pt Edith to the Avon Wharf are property of Department of Fish and Wildlife (700+ acres), but the marshes around Hastings Slough and much of the tributary marshland (2000+ acres) is military property and entry is prohibited without prior clearance.

LAND ACCESS: All types to Waterfront Road. Otherwise foot only.

WATER LOGISTICS: Very shallow water. Exposed mud at low tide.

Limitations: depth, obstruction

Launching, Loading, Docking very poor launch at CNWS tug wharf. Commercial Launching at Martinez, Benicia, and
and Services Available: McAvoy's in Bay Point, all have complete services. Tosco launch is at Pacheco Slough.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Martinez and McAvoy-Harris's are two primary staging areas depending on zone of spill impacts. Both have wide variety of services and access, potential for security control.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:

