2-667-A Site Summary - Freeman & Snag Islands 2-667-A

County: Solano **ACP Division/Segment:** SO - F - S006 SO - F - S008

NOAA Chart: 18656 Suisun Bay/Roe Island & vicinty ***Map Book:*** ***Decimal Degrees:*** 38.075571 -121.979859

Site Description:

This site includes Snag and Freeman Islands which are located just south of Dutton Island and east of Ryer Island in northern central Suisun Bay. Both are properties of Concord Naval Weapons Station (MOTCO). These two islands have emergent salt-marsh margins. Snag Island is a upper marsh with cattails and shrubs. Freeman Island is low salt-marsh. It has an inside channel which goes all the way around the inside of the island and supplies water to the inner salt-marsh with small channels. Tide water is admitted to this inner channel via breaks in its margin: there are four distinct breaks in the southwest shore and two breaks on the north shore of Freeman Island. Both islands have very convoluted salt-marsh shorelines.

Resources at Risk:

ESI and Habitat: 10A Salt - and brackish-water marshes
9B Vegetated low banks
6B Riprap

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	California black rail	FP, ST	Year-round	Mar-Aug
Birds	California Ridgeway's rail	FE, SE	Year-round	Feb-Aug
Fish	longfin smelt	ST	Year-round	Nov-May
Fish	steelhead - Central/Northern California	FT	Year-round	Nov-Apr
Fish	delta smelt	FT, SE	Year-round	Mar-May
Mammals	salt-marsh harvest mouse	FE, SE	Year-round	
Plants	Mason's lilaeopsis	SR	Year-round	Apr-Nov
Reptiles	giant garter snake	FT, ST	Year-round	Jul-Oct

FT-Federally Threatened, FE-Federally Endangered, FP-Federally Protected, SE-State Endangered, ST-State Threatened, SP -State Protected, SR-State Rare, SSC-Species of Special Concern, BGEPA-Bald and Golden Eagle Protection Act, SSSP-State Special Status Species

List of Key Contacts:

Type	Name/Title	Organization	Phone
C	/Coordinator	Native American Heritage Commission	(916) 373-3710
C	/Coordinator	Northwest Information Center	(707) 588-8455
E	/Dispatch, 24-hr	US Army, Concord Military Ocean Terminal	(925) 246-4041
E	/Dispatch, 24-hr	US Army, Concord Military Ocean Terminal	(925) 246-3911
T	/Environmental Program Manager	CA Dept. of Fish & Wildlife, Bay Delta Region	(707) 576-2837
T	/Agency Representative	NOAA National Marine Fisheries Service	(707) 575-6050
T	/Spill Response Coordinator	US Fish and Wildlife Service, Bay-Delta Office	(479) 233-9241

C – Cultural, Historic, Archaeological; E – Entry/Owner/Access; O – Other; S – Safety; T – Trustee; X – Exclusion or Security

Additional Site Summary Comments:

Concerns and Advice to Responders:

These island salt-marshes and the endangered plants and animals living there, are very vulnerable to oil damages. Primary concern is penetration of oil into the salt-marsh via tidal channels and secondarily into emergent marsh fringe. Responders should minimize trampling of marsh vegetation and avoid tracking oil into marshes and sediments. Small endangered plants and animals are present year-round.

Hazard and Restrictions:

There are shallows and obstructions around and inside the island. Suisun bay can have aggressive waves.

Site Strategies: **Site Validation Level: III**

Strategy:* 2-667.1** ***Objective: Exclude oil from entering openings to perimeter barrow channel and interior channels of Freeman Island.

Strategy: There four breaks in the southwest shore and two on the north shore of Freeman Island, all of them open to an inside barrow channel which goes all the way around the inside of the island and supplies water to the inner marsh. On the south side, exclude oil entry by deploying chevron "V" exclusions with about 300' each of 9x9+ boom with mid-point anchors and staking at shoreline in front of the openings. To be sure to stop movement of any oil passing these wave exposed openings, then deploying shore segments of 6X6+ across barrow channel to the left and right of the openings large openings. On the northerly shore, exclude oil from the two openings with short segements of 6X6+ in small chevrons.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit
Boom	Harbor	9x9	inch	1200	feet
Boom	Swamp	6x6	inch	250	feet
Anchor	Danforth	22	lb	8	
Vessel	Boom Boat			1	
Vessel	Skiff or Punt			1	
Staff	Staff to Deploy			5	

Last Page Update

Strategy Updated:
Last Test:

Strategy:* 2-667.2** ***Objective: Divert oil threat from west (Suisun Cut) past windward pockets to minimize shore oiling for Freeman

Strategy: On westerly end of Freeman Island, deploy deflection boom at the best angle to protect windward shore from approaching oil using 1300' of 9x9+. (See diagram 2-668.2A.)

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit
Boom	Harbor	9x9	inch	1300	feet
Anchor	Danforth	22	ls	7	
Vessel	Boom Boat			1	
Vessel	Skiff or Punt			1	
Staff	Staff to Deploy			5	

Last Page Update

Strategy:* 2-667.3 *Objective: Deflection for S & SW winds, divert oil past windward pockets to minimize shore oiling for Freeman and Snag Island.

Strategy: Deployment should be set to the southerly side of the island and a similar deployment will be needed on Snag Isle (2900' of 9x9+ total needed) 1300 Harbor Boom for Freeman & 1600 for Snag chevron (decrease chevron angle as necessary to prevent overtopping boom).

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit
Boom	Harbor	9x9	inch	2900	feet
Anchor	Danforth	22	lb	9	
Vessel	Boom Boat			1	
Vessel	Skiff or Punt			1	
Staff	Staff to Deploy			5	

Last Page Update

Strategy Updated:
Last Test: 6/8/2022

Strategy:* 2-667.4 *Objective: Protective Booming: If there is threat of heavy oiling and saturation of the marsh front, deploy protective boom coverage, when resource use will not preclude defending other sites against SO 5 and 6 impacts.

Strategy: If foregoing strategies are inadequate to keep oil off marshes, deploy exclusion booming around threatened marshfronts: this strategy can be found in Potential Oil-Spill Protection Strategies for San Francisco Bay, California. (Hayes and Montelo, 1994).

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit
Boom	Harbor	9x9	inch	4000	feet
Boom	Swamp	6x6	inch	13000	feet
Anchor	Danforth	22	lb	35	
Vessel	Boom Boat			6	
Vessel	Skiff or Punt			1	
Staff				20	

Last Page Update

Logistics:

Directions: There is no land access. Nearest land access is across channel to Dutton Island. Nearest boat access is 3 miles southeast at McAvoys Marina, Bay Point (8 miles to Martinez, 7 miles to Pittsburg).

Land Access: Access by vessel only. Must coordinate with MOTCO before landing.

On-Water Limitations: VERY SHALLOW DRAFT < 2' NEAR ISLAND. McAvoy/Harris Marina at Bay Point. Pittsburg Marina. Martinez Marina.

Facilities, Staging Areas, Command Posts, Available Equipment: The only alternative to marina facilities are duck clubs at nearby Dutton and Simmons Islands including good docking facilities.

Communications Problems: Cell reception may be spotty.


2-667.2
2-667.1
Freeman Island
Dutton Island
2-667.3
2-667.1
2-667.3
Snag Island
Point Palo Alto
Suisun Bay
0
0.25
0.5
1
Miles
N
CDFW - OSPR & USCG Site: 2-667 Name: Freeman and Snag Islands
G.Ewing (OSPR) & M. Schommer (OSPR) Date: 9/30/2020
Harbor Boom