

County: Solano**ACP Division/Segment:** SO - F - S003 SO - F - S005**NOAA Chart:** 18656 Suisun Bay**Map Book:****Decimal Degrees:** 38.08136 -122.012615**Site Description:**

This site includes all of Ryer Island and is a property of the US Navy Military Ocean Terminal Concord (MOTCO). This salt-marsh island in Suisun Bay is divided in two parts by a channel. The western end of the island is a high tidal marsh and supports a rich diversity of native marsh plants. It has never been diked or channelized. The west-most tip is wave eroded and is used occasionally as a haulout by harbor seals. The eastern three-fourths of the island was once diked, and the interior of the island subsided. The dikes are now broken in several places, and because of the subsidence, strong tidal currents fill and empty the interior with every tide cycle. This eastern portion is a flooded maze of tule pockets and channels with a large deep channel running east-west. The outer perimeter of the island has complicated shoreline of small salt-marsh islands and barrow channels. There are mature trees on the levees particularly at the east end.

Resources at Risk:*ESI and Habitat:* 10A Salt - and brackish-water marshes

9B Vegetated low banks

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	California Ridgeway's rail	FE, SE	Year-round	Feb-Aug
Birds	California black rail	FP, ST	Year-round	Mar-Aug
Birds	common yellowthroat	FP, SSC	Year-round	Jun-Aug
Fish	longfin smelt	ST	Year-round	Nov-May
Mammals	salt-marsh harvest mouse	FE, SE	Year-round	
Mammals	harbor seal	FP		
Plants	Mason's lilaeopsis	SR	Year-round	Apr-Nov
Plants	Delta tule pea	SSSP	Year-round	May-Jul

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	/Office	Mandeville Island Reclamation District	(209) 946-0268
E	/Office	Ryer Island Reclamation District	(209) 946-0268
E	/24 hour number	US Army, Concord Military Ocean Terminal	(925) 246-4182
E	/24 hour number	US Army, Concord Military Ocean Terminal	(925) 246-4075
E	/24 hour number	US Army, Concord Military Ocean Terminal	(925) 246-4041
E	/24 hour number	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	/Oil Spill Point of Contact	NOAA National Marine Fisheries Service	(707) 480-3496
T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304

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

Additional Site Summary Comments:

Harbor seals are known to haul out on the westerly side at lower tides. There are extreme shallows and submerged obstructions around these islands.

Concerns and Advice to Responders:

The main concern is the potential for oil to be carried into the interior of the islands particularly eastern Ryer Island: on east Ryer there is a strong flood flow into the island through openings on the north, the south, the east and the west. The north opening and west opening are most likely to have oil entries. Also of concern is the oiling of the emergent vegetation on the margins and surrounding small islands: closing sloughs and openings will reduce the amount of marsh exposed. There are rare plants and threatened species here; so avoid trampling vegetation and trampling oil into sediments.

Hazard and Restrictions:

There are extreme shallows and obstructions around these islands.

Site Strategies:**Site Validation Level: II**

Strategy: 2-632.1 Objective: Exclude oil from entering east section of Island through levee breaks and penetrating the west section interior via tidal inlets.

Strategy: Primary concern is excluding oil from East Ryer Island. West Ryer Island should come after. Most actions require very shallow operations, and at least one very shallow draft boom boat is necessary. Target time is 2 hours for deployment:

On East Ryer Island are four major openings and plus some smaller inlets.

A) - North shoreline on Suisun Cut: Use chevron configuration (600' 9X9+ Hboom with 3 22#+ anchors and stakes) to exclude oil from a large gap in the levee. There are four narrow openings to the east of the break, each requiring 100' of 6X6+ and 1/5#+ anchors and stakes each. Back with sorbent (1000')

- Cross Island channel may need booming at north end: 200' of 9X9 at the north end. 200' sorbent.

B) west shore: All require very shallow operations. Back with sorbent 500.

- Exclude oil from two small opening just east of cross island channel 50' and 100' of 6X6+ each with 1- 5#+ anchor and stakes in a chevron "V" exclusion. Set "V" apex and stakes as far from current opening as possible.

- Exclusion chevron "V" in the larger channel immediately to south, with 350' 9X9+ Hboom with 22#+ anchors & stakes.

- Exclusion boom in three inlets starting at 100 yds south of above channel, boom with 100' ,100' and 50' of 6X6+ swamp boom staked in place. (no sorbent necessary.)

c) South shore: two openings - a wide funnel opening fronted with pilings and submerged pilings: deploy Chevron "V" exclusion with 400' 9X9+ Hboom with anchors to keep boom off the pilings. Back with 200' sorbent. Exclude oil from second opening about 200 yds east: 100' 6X6+ boom. Back with 50' sorbent.

D) East shore: Chevron "V" exclusions of four openings through outer fringe islands: two most easterly opening 350' and 150' 9x9+ (both with 22# danforths), two south easterly side 150' and 150' of 6X6+ boom (both with 5#+ mid channel anchors). Back with 600' sorbent.

On West Ryer Island are four tidal inlets. These require extremely shallow operations.

E) Near the northwest tip just east of Garnett Point is a funnel mouth slough: 200' 6X6+ swamp boom staked in place and 100' sorbent.

F) on the south side, Chevron "V" exclusions using 6X6+ boom - 150' at the cross island cut and slough immediately to the west and further west 100' at each of two other sloughs. Back with sorbent boom.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1850	feet	
Boom	Swamp	6x6 inch		1580	feet	
Boom	Sorbent			2800	feet	
Anchor	Danforth	25 lb		15		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-632.2 Objective: Deflect oil away from seal haulout at northwest tip.

Strategy: Deflect oil past north west tip (Garnett Point) using 400' of 9X9+ Hboom. At least four heavy anchors will be necessary to hold the boom in position in this high wind area.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		400	feet	
Anchor	Danforth	44 lb		4		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-632.3 Objective: Reducing south shore impacts by closing barrow channel inlets.

Strategy: Closing barrow channel inlets can reduce oil exposure to the south margin by about 1/2. If oil is likely to impact south side of Ryer Island, close openings to barrow channels. 3000' 6X6+ Swamp boom with stakes and occasional anchors as needed.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Swamp	6x6 inch		3000	feet	
Anchor	Danforth	25 lb		7		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Logistics:

Directions: There is no land access. By water, Ryer Island is located about a mile north of the Concord Naval Weapons Stations (MOTCO) piers in Suisun Bay. The Island is about six miles northeast from Martinez and about four miles northwest from McAvoy's. North and south margins are deep. Wherever channels cross old levee, there are obstructions. Interior channels are all very shallow but may be traversed with outboards with high tides.

Land Access: Foot traffic only and extremely difficult.

On-Water Limitations: North and south margins deep; channels shallow & obstructions. Nearest launch is McAvoy's (4 miles) or Martinez -Benicia (7 miles). All have good services.

Facilities, Staging Areas, Command Posts, Available Equipment: Either Martinez, Benicia, or McAvoy's (Bay Point) have good facilities for field outposts. All have good support and security potential. Martinez has widest variety of support services.

Communications Problems: None known.

