

2-158-A Site Summary - Estero de San Antonio**2-158-A****County:** Marin **ACP Division/Segment:** MR - A - S003**NOAA Chart:** Bodega and Tomales Bays **Map Book:** Marin County 18643**Decimal Degrees:** 38.269321 -122.977282**Site Description:**

Located within Greater Farallones National Marine Sanctuary near the Marin-Sonoma County line. The waterway from the rivermouth and approximately two miles upstream is the Estero de San Antonio State Marine Recreational Management Area. Site is associated with BLM Ca Coastal National Monument resources. Estuary is open to the ocean seasonally. Subject to strong flood currents near the mouth. South spit is wide and sparsely vegetated with a moderately steep coarse-grained beach. The inlet has been deflected to the north side of the canyon. Gravel beaches and cliffs are present along the north bank. Brackish water marshes are present along banks inside estuary.

Resources at Risk:*ESI and Habitat:* 4 Coarse-grained sand beaches

1A Exposed Rocky Shore

2A Exposed wave-cut platforms in bedrock, mud, or clay

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Amphibians	California red-legged frog	FT, SSC	Year-round	Nov-Apr
Birds	Western snowy plover	FT, SSC	Year-round	Mar-Oct
Birds	California brown pelican	FP, SP	Year-round	
Birds	Northern harrier	FP, SSC	Year-round	Jun-Jul
Fish	tidewater goby	FE, SSC	Year-round	
Insects	Myrtle's silverspot butterfly	FE	Year-round	
Plants	eelgrass		Year-round	

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
O	/Agency Representative, 24-hr	California Coastal Commission	(415) 693-8375
O	/Emergency Service Coordinator	Marin County Office of Emergency Services	(415) 250-0267
O	/Dispatch, 24-hr	Marin County Sheriff's Department	(415) 479-2311
T	/Natural Resources Specialist	BLM, CA Coastal National Monument	(831) 582-2200
T	/Agency Representative, 24-hr	Greater Farallones National Marine Sanctuary	(650) 678-4943
T	/Agency Representative, 24-hr	Greater Farallones National Marine Sanctuary	(650) 479-5311

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

Additional Site Summary Comments:

An array of shorebirds, seabirds and waterfowl utilize this site year-round.

Concerns and Advice to Responders:

The concerns are oil contamination and response activity impacts to wetlands, rare and endangered species, and other vulnerable plants and wildlife which are present throughout the year. The primary objective is to minimize the exposure of oil to plants, animals and habitats present at this site. Other concerns are the impacts resulting from response activities. Avoid trampling wetlands, sensitive plants and animals, and soft mudflats, causing penetration of oil into the sediments and further injury to the environment.

Hazard and Restrictions:

Shallow water in the estuary and heavy surf along the coastal beach.

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

Strategy: 2-158.1 Objective: Exclude oil from entering the estuary.

Strategy: In addition to on-water recovery efforts, the following site-specific protection measures should be taken:

Under conditions where the estuary is isolated from the ocean by a small sand berm but a potential for overwash into the estuary exists, construct a sediment dike. Sediment should be taken from the beach face south of the river mouth. The washover terrace may be 100 meters (300 feet) wide. It is recommended that a ditch be constructed on the backside of the dike (a runnel) near the top to catch any oil that washes over the top of the dike.

Options for getting heavy equipment to the estuary mouth: a) drive to beach from the road on south shore of estero, or b) transport via shallow draft vessel from a ranch up the estuary, or c) using landing craft when seas are calm, land heavy equipment on beach.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Heavy Equip	Bobcat w/ tracks			1		
culvert				3		
Staff	Staff to Deploy			5		

Strategy: 2-158.2 Objective: Exclude oil from entering the estuary.

Strategy: Boom will be necessary when it is expected that seawater may flow into the estuary during the flood tide. Up to 1,500 feet of boom having a minimum freeboard/floatation of 6" and a minimum draft/skirt of 6" may be needed. Consider wind direction, expected current velocity and oil recovery logistics when selecting which shoreline to deflect oil to. There is a mixed sand and gravel beach on the north shore and a sand beach on the south shore of the estuary.

a) Deploy 1,500 feet of boom from the north end of the high berm on the south side of the estuary mouth to a gravel beach on the north shore of the estuary stranding oil along the north bank. Alternatively, deploy boom from the bluff on the north side of the estuary mouth to the sand beach on the back (east) side of the spit, stranding oil along the south bank.

Two skiffs capable of towing boom & setting anchors will be needed to deploy and tend the boom. It is recommended that a small shallow draft barge be launched at the Pozzi or Fanning ranches up the estero. Such a barge could be towed out to the ranch when the water reaches maximum depth in the fall. The other option is to repair the dirt road leading to the estero mouth from the south. Boom will be necessary when it is expected that seawater may flow into the estuary during the flood tide. Up to 1,500 feet of boom having a minimum freeboard of 6 inches and a minimum draft of 6 inches may be needed. Use 50ft of Oil Snare, 100ft of sorbent boom to recover any oil that may accumulate. If oil accumulates in skimmable quantities, contact IC prior to skimmer deployment.

b) Place 300 feet of shoreline protection fabric along the shoreline to which the oil is deflected to minimize the amount of shoreline clean-up required.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1500	feet	
Boom	Oil Snare (pom-pom)			50	feet	
Boom	Sorbent			100		
Anchor	Danforth	25 lb		8		
Staff	Staff to Deploy			5		

Strategy: 2-158.3 Objective: Oil Recovery by skimming

Strategy: If oil accumulates in skimmable quantities as a result of strategy .2, use of 2 portable skimmers and portable oil storage facilities will be needed to recover the oil as it accumulates. Contact IC prior to deploying skimmers.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
skimmer	shoreside			1		
Staff	Staff to Deploy			3		

Logistics:

Directions: From Hwy 1 at Valley Ford, take the Valley Ford Franklin School Road southbound. Near Whitacker Bluff Road it will cross the upper end of the Estero. Small boats (skiffs) can be hand launched here. The site is bounded by private property and it is unknown whether there are farm roads which lead to the Estero mouth.

Land Access: Dirt road leads to Estero mouth from the south-needs repair.

On-Water Limitations: Sandbar sometimes isolates estuary from sea. The Pozzi and Fanning Ranches are located upstream the Estero.

Facilities, Staging Areas, Command Posts, Available Equipment: The mixed sand and gravel north shoreline just inside the estuary mouth has good shoreline access there for the support of recovery equipment and is the preferred containment site. An alternate site is the sandy shore of the estuary behind the spit but is not preferred because access for support equipment is difficult at best.

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Communications Problems: Cell reception varies on outer coast.

Additional Operational Comments: Strategy has not been deployed or tested.

