

**2-155-A Site Summary - Estero Americano****2-155-A****County:** Sonoma **ACP Division/Segment:** SN - E - S017**NOAA Chart:** Bodega and Tomales Bays **Map Book:** Marin County 18643**Decimal Degrees:** 38.296462 -123.001801**Site Description:**

Located within Greater Farallones National Marine Sanctuary on the Marin-Sonoma County line. Site is within the following State Marine Protected Area: ~~Estero~~ American State Marine Recreation Management Area from the mouth extending approx two miles upstream. Site is associated with BLM Ca Coastal National Monument resources. Site is a large estuary, open to the ocean seasonally. Very strong flood currents are present at the mouth of the Estero. Coarse-grained sand is found on the south spit and southern shoreline. Gravel is on the north bank. The inlet currently opens on the north side of the canyon.

**Resources at Risk:***ESI and Habitat:* 3A Fine- to medium-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
Birds	brown pelican	FP, SP	Year-round	
Birds	Western snowy plover	FT, SSC	Year-round	Mar-Oct
Fish	tidewater goby	FE, SSC	Year-round	
Fish	steelhead - Central/Northern California	FT	Year-round	Nov-Apr
Fish	Pacific herring		Year-round	Nov-Apr
Mammals	North American river otter	SSC	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 and waterfowl frequent this site year-round. Western pond turtles and California red-legged frogs may be present in the freshwater marsh habitat, in the inland portion of this location.

**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 areas inside the Estero and heavy surf conditions are possible outside the mouth of the Estero.

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

**Strategy: 2-155.1 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 sand berm but potential exists for tidal washover into the estuary exists, construct a sediment dike. Sediment should be taken from the beach face south of the river mouth. There may be washover terraces requiring reinforcement at both the north and south sides of the estuary mouth. Each may be 100 meters (300 feet) wide. It is recommended that a shallow 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.

Heavy equipment can be safely driven to the beach from road on north shore of Estero or if seas are calm enough use a landing craft to 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: 2-155.2 Objective:** Exclude oil from entering the estuary. Prevent oil from entering seawater intake to aquaculture facility.

**Strategy:** a) 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.

Deploy 500 feet of boom from the north end of the vegetated high berm to a large rock on the north shore of the estuary at the bottom of the road to the water intake for the aquaculture facility, and another 600 feet from the back (east) side of the high berm to a large rock on the north shore of the estuary about 600 feet east of the road. Six skiffs capable of towing boom and setting anchors will be needed to deploy the boom. Two must be left to tend the boom. Use 50ft of Oil Snare, 100ft of sorbent boom to clean up oil that may accumulate. If skimmer is deemed necessary, contact IC prior for possible deployment.

b) Place 200 feet of sorbent boom around the seawater intake for the aquaculture facility. Keep the manager of the aquaculture facility informed of the location of the oil so he may store seawater in tanks at his facility and otherwise prepare to shut down his pumps.

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			300	feet	
Anchor	Danforth	25 lb		10		
Staff	Staff to Deploy			5		

**Strategy: 2-155.3 Objective:** Minimize shoreline cleanup and restoration.

**Strategy:** Place 300 feet of fabric or other material along the north shoreline of the estuary to prevent oil penetration into the sediments and minimize the amount of shoreline cleanup required.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Plastic sheeting	visqueen			300	feet	
Anchor				24		
Staff	Staff to Deploy			5		

**Strategy: 2-155.4 Objective:** Oil Recovery by skimming

**Strategy:** If oil accumulates in skimmable quantities as a result of strategy .2, deploy skimmers in appropriate area. Contact IC prior to initiation of this strategy.

Table of Response Resources

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

### Logistics:

**Directions:** The best access to this site is through an aquaculture facility on the north shore of the Estero. To get there from Hwy 1, take Estero Lane between Valley Ford and Bodega. The aquaculture facility can be reached via 3.2 miles of unpaved road.

**Land Access:** The road is 3.2 miles long, and is unpaved.

**On-Water Limitations:** Skiffs must be able to tow boom and set anchors in 2 ft. Hand launch skiffs across shore on north bank.

**Facilities, Staging Areas, Command Posts, Available Equipment:** Staging area could be established at the aquaculture facility.

*Communications Problems:* Cell reception varies on outer coast.

*Additional Operational Comments:* Sandy shore south of estuary behind spit is alternate containment & recovery site. Not preferred because access for support equipment is difficult at best. Preferred site has good shoreline access there for support of oil recovery equipment.

