

2-421-B/X Site Summary - Paradise Cove & Tiburon Peninsula**2-421-B/X****County:** Marin**ACP Division/Segment:** MR - S - S001 MR - S - S004**NOAA Chart:** Entrance to San Francisco Bay 18649**Map Book:** AAA - Mill Vall**Decimal Degrees:** 37.894741 -122.457592**Site Description:**

This site includes the eastern shore of the Tiburon Peninsula from Bluff Point in the south to north of El Campo. The current from the north sweeps past the peninsula so that oil and debris collect here naturally. There are a variety of shoreline types on the Tiburon Peninsula. They vary from rock bluff outcroppings and platforms to gravel/cobble and sand beaches. Most are exposed to moderate and high energy from boat wakes, wind waves, and strong nearshore currents. Eelgrass beds are located nearshore north of El Campo and vary in density from year to year. Public health and safety and birds feeding and resting on the beaches and in nearshore waters are the major concerns. The Tiburon Peninsula is a residential area but includes Paradise Cove County Park. Other than the county park, most shorelines are accessible only by water.

Resources at Risk:

- ESI and Habitat:* 8A Sheltered scarps in bedrock, mud, or clay
 8D Sheltered rocky rubble shores
 8B Sheltered solid man-made structures

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Amphibians	California red-legged frog	FT, SSC	Year-round	Nov - Apr
Fish	longfin smelt	ST	Year-round	Nov - May
Fish	Pacific herring		Year-round	Nov - Apr
Mammals	harbor seal	FP	Year-round	Mar - Jul
Mammals	sea lion	FP	Year-round	Mar - Aug
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
E	/Emergency Contact (24hr)	Marin County Emergency 911	(415) 472-0911
E	/Emergency Service Coordinator	Marin County Office of Emergency Services	(415) 250-0267
E	/Dispatch, 24-hr	Marin County Sheriff's Department	(415) 479-2311
E	/Office	Paradise Cay Yacht Harbor	(415) 435-4292
O	/Office	Audubon Society, Marin County Chapter	(415) 924-6057
O	/Dispatch, 24-hr	The Marine Mammal Center	(415) 289-7350

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

Additional Site Summary Comments:

Seabirds occasion this area for resting and feeding. Harbor seals and sea lions forage here.

Concerns and Advice to Responders:

This is a natural collection zone: oil tends to collect in nearshore eddies, particularly in the southern part of the Paradise Cove adjacent to Pt Chauncey, but little comes ashore. Skimmable quantities of oil can be easily collected by self propelled skimmers due to deep waters. Natural resources of concern such as eelgrass, brown pelicans and waterfowl use this area for feeding and roosting.

Hazard and Restrictions:

Submerged rocks along most beaches, steep cliffs along most shorelines. Avoid eelgrass beds w/ outboard props.

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

Strategy: 2-421.1 Objective: At Paradise cove, deflect to collection during ebb and away from shores during flood

Strategy: Deploy 1000 ft 9X9+ deflection booms at both Point Chauncey and El Campo to deflect/divert oil out of currents into nearshore eddies, on ebb tides. Same boom set will also help keep oil in current. To minimize oiling of Paradise Cove shoreline, use 4,500 ft of swamp boom (6X6+) under most conditions (and 9X9+ when there is wind chop at this protected location).

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		2000	feet	
Boom	Swamp	6x6 inch		4500	feet	
Anchor	Danforth	40 lb		16		
Vessel	Boom Boat			2		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			8		

Strategy: 2-421.2 Objective: At Bluff Point, deflect oil to natural collection sites

Strategy: Deploy boom from the two points north of Bluff Point to deflect oil to natural collection sites: 600 ft of 9X9+ Hboom should be deployed from the shore just north of each point at 40 degree angles into the current to direct eddying oil to shoreline. Depending on oil type, oil snare or sorbents at shore may aid collection and reduce shoreline cleanup.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1200	feet	
Boom	Oil Snare (pom-pom)			600	feet	
Anchor	Danforth	40 lb		7		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt					

Logistics:

Directions: From the Richmond-San Rafael Bridge, take Highway 101 south and exit at Paradise Drive. Proceed to Paradise Beach County Park.

Land Access: Paved to Paradise Cove County Park. Coordinate with Marin Co Open Space Rangers for access.

On-Water Limitations: Generally good. Occasional submerged rocks. Services located at Sausalito and Richmond.

Facilities, Staging Areas, Command Posts, Available Equipment: The Paradise Cove County Park and Tiburon Oceanographic Center may be used as a staging area or field office.

Communications Problems: Cell reception may be spotty near cliff base.

