Site Summary- Arroyo Del Corral Creek Inlet and Beach

County:	San Luis Obispo	Thomas Guide Location	Latitude N	Longitude W
USGS Quad:	Piedras Blancas	324 F-5	35.68272	121.28600
		NOAA Chart: Pt. Sur to Pt. Conception 18700		

Last Page Update : 5/1/2014

SITE DESCRIPTION:

See Division A map. Arroyo de Corral is a small intermittent creek that runs in a culvert under HWY 1. Creek mouth meets with Arroyo Del Oso Creek. Beach is State Park property and offshore is within the Monterey Bay National Marine Sanctuary, Sea Otter Game Refuge, and Pierdas Blancas State Marine Reserve MPA, and is governed by special protections established by the DFW Marine Region. Medium to course grained sandy beach fronting creek. Woody debris on beach. Beach fronting creek is a Snowy plover nesting beach.

SEASONAL and SPECIAL RESOURCE CONCERN

Species are present year round. Tidewater goby (critical habitat) peak nesting season is April-May. Steelhead (critical habitat) peak spawning March - July. Red-Legged Frog peak breeding season is Nov-March. Snowy Plovers nest March - September.
Possibly red-legged frogs (federally threatened), and western pond turtles (species of special concern) in this creek.
Throughout Division A, black abalone (endangered) may be present in rocky intertidal habitat (designated critical habitat). Area is also designated critical habitat for leatherback sea turtles which extends from shore out to 100 miles offshore; most commonly observed Aug - Nov.
Sea otters (pup Jan. - March) are common offshore.
Peak bird nesting is from March-September.

RESOURCES OF PRIMARY CONCERN

Western snowy plovers (threatened) nest on this beach. Snowy plovers may have active nests, or chicks may be actively moving about the area. Care should be given to minimize disturbance and avoid injury to either nests, or chicks. Snowy plovers are small, white and tan colored shore birds. Beach Bird-Nesting sites are shallow depressions scratched out from the sand surface on sandy beaches above the highest tide line. The nest sites are typically very well disguised and difficult to see, even for trained eyes. Nest sites may contain either eggs, or chicks which are potentially vulnerable to trampling by vehicles or foot traffic. Snowy plover adults and chicks are known to move between the nest sites and the active water line. Over-wintering snowy plover adults may be foraging throughout the response area.

Shorebirds include western gulls, willets, sandpipers, black oyster catchers (on rocky intertidal); sea birds include brown pelicans, pelagic cormorants, grebes, loons, scoters, common murres.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact SHPO and Native American Heritage Commission

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
E/T	District Office	State Parks & Recreation Dept.	(805) 927-2065
T	Melissa Boggs Environmental Scientist	CDFW-OSPR	(805) 558-1005
C	Lynn Gamble Historic Info Center	SHPO/UCSB	(805) 893-7341
T	Mike Harris Sea otter expert	CDFW-OSPR	(805) 772-1135
O	Brian Hatfield Marine mammal expert	Bio Res Div. USGS	(805) 927-3893
T	Scott Kathey Regulatory Coordinator	Monterey Bay National Marine Sanctuary	(831) 647-4251
T	Jenny Marrek Biologist	U.S. Fish and Wildlife Service	(805) 644-1766
C	Larry Meyer	Native American Heritage Commission	(916) 373-3712
T	Becky Ota	CDFW for MPAs	(650) 631-6789
T	Elizabeth Petras Biologist	National Marine Fisheries Service	(562) 980-3238
C	SHPO	State Office of Historic Preservation	(916) 445-7000
T	Carolyn Skinder Biologist	Monterey Bay National Marine Sanctuary	(805) 927-2145
E/T	Dispatch State Parks	State Dept. Parks and Recreation	(951) 443-2969
T	Steve Wertz	CDFW for MPAs	(562) 342-7184

ADDITIONAL SITE SUMMARY COMMENTS:

County and Thomas Guide Location	NOAA CHART	Latitude N	Longitude W
324 F-5 San Luis Obispo	Pt. Sur to Pt. Conception 18700	35.6827	121.28600

Last Page Update : 5/1/2014

CONCERNS and ADVICE to RESPONDERS:

Fish Disturbance - This is designated critical habitat for tidewater gobies and steelhead. Avoid disturbing bottom lagoon sediments to protect tidewater gobies especially April-July, nesting season. Equipment and foot traffic entering wetted areas should be avoided to the maximum extent practical to prevent crushing tidewater gobies, their burrows, and eggs. Any anchors deployed in water should be placed in waters greater than 4 feet deep to avoid crushing tidewater goby burrows. If supplemental water is used to flush recommend gradually increasing the intensity/volume during the flush. March - July peak spawning for steelhead. Nov-April, minimize trampling estuary/creek vegetation due to frog breeding. If creek conditions allow, boom deployment and recovery to be done by only having one person slowly walk across the creek to position the boom (and fence posts on the bank) to reduce disturbance.

Wetland/riparian Habitat – Mud flats, marshlands, and creeks contain fragile habitat subject to damage from human activities such as walking and vehicle use. Oil can be trampled into sediments by responders where it will not be recoverable. Avoid walking in mudflats, marshy areas, and riparian habitat/waterways whenever possible. When crews must walk in soft bottom wetland areas to access cleanup sites, restrict the number and size of pathways. Mark authorized pathways with flagging or tape. Place temporary ramps (e.g. plywood sheets) in sensitive marshy areas where heavy use is expected.

PRIMARY PLOVER PROTECTION STRATEGY: During nesting season March - September, to aid in avoiding damage to nests, consider delineation of nesting areas and designate responder "pathways" with flagging or tape. Nests and critical habitat protection areas will require oversight by natural resource specialist prior to response effort execution. All responders should be briefed on procedures for avoiding birds and nest sites. Oil spill response and cleanup activity should be limited to locations below high tide line unless otherwise authorized by trustee agency specialist, or designee (biological monitor). The area to be protected will be monitored by an assigned biological monitor. Oil removal should be conducted by hand crews unless other methods are recommended by the biological monitor. Pre-clean the beach and stockpile kelp and surfgrass rack in designated areas for re-distribution after response efforts are completed. A staging area will be determined as most suitable for response and natural resource protection. Travel on beach should be restricted to the wet sand as much as possible; Vehicle traffic should be operated at slow enough speeds to avoid/minimize impacts to wildlife (15 MPH); if possible avoid driving over wrack.

SECONDARY PLOVER PROTECTION STRAGEGY: At the discretion of the biological monitor, in consultation with the U.S. Fish and Wildlife Service, snowy plover or least tern eggs may be removed from nest's by authorized and qualified personnel to an approved facility to avoid injury. This determination will be made on-site utilizing oil trajectory and oil impact timing information.

OTHER ENVIRONMENTAL CONCERNS:
Black abalone may be present on nearby rocky intertidal habitat.

Nearshore waters include sensitive rafting areas for birds, sea otters, and other marine mammals. To protect seabirds, limit spill response activities within 1,000 feet of nesting seabirds. Try to remain at least 100 yards away from marine mammals and sea turtles and if approached closely by a marine mammal or turtle while motoring, reduce speed and shift to neutral; do not engage props until the animals are observed at the surface, clear of the vessel.

Potential for oil burial or penetration in course grained sand.

SHORELINE PRE-CLEANING may be warranted before oil reaches the beach when the shoreline is covered with kelp, driftwood, etc which could become oiled and create more oiled waste. Consult with trustees prior to engaging in activities on shoreline. Move unoiled vegetation, driftwood, etc. above the high tide line. When the shoreline is narrow, un-oiled debris may need to be stockpiled elsewhere. It is suggested that photos be taken to document distribution of beach debris prior to collection so that it can be replaced to its pre-spill distribution when spill cleanup is complete. Pre-cleaning of shorelines should be conducted by hand crews to the greatest practical extent to minimize disturbance to wildlife and their habitats.

HAZARDS and RESTRICTIONS:
Beach is Hearst San Simeon State Park property and offshore is within the Monterey Bay National Marine Sanctuary, Sea Otter Game Refuge, and Pierdas Blancas State Marine Reserve MPA.

SITE STRATEGIES

Strategy 4-030.1 Objective: Exclude oil from creek by berming or sand bags.

- When creek mouth is open, under low flow conditions block entrance with sediment berm or sandbag berm (fine to medium grained sand), and install flow through pipes as necessary to prevent flooding. To create protective berm; take sand from active unvegetated beach face to prevent damage to dune habitat. When erosion from waves or overflows could erode berm, armor berm and banks by covering with plastic sheeting anchored by sand bags. When overflow could occur due to accumulation of water behind the containment berm install underflow piping and/or a spillway in the berm. When overwash could bring oil into inlet over berm back exclusion/containment berm with containment and/or sorbent booms and/or snare. Regular monitoring and maintenance will be necessary (2 staff twice daily). Check for berm effectiveness and integrity, overwash, and

leakage problems, boom position and security, and sorbent replacement as necessary.

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Strategy 4-030.2 Objective: Exclude oil from creek by booming.

When creek mouth is open block entrance with a short skirted containment boom at appropriate angle for swift currents and changing tidal influences. When suitable berm materials are unavailable and/or when tidal flows, waterflows, or water depths are too great for berming, install exclusion booms at mouth of Inlet/lagoon using short skirted boom and snare boom. Install boom in a configuration/angle which blocks channel and diverts oil to a collection point. If needed, line river/stream bank within lagoon, seaward of the exclusion/containment booms to restrict oil to open water area of main channel to protect vegetated banks and sensitive areas within the inlet/estuary. Use swamp boom backed by sorbent booms, if waters are shallower, and use harbor boom backed by sorbent booms, when water depths are greater. Check/maintain boom for effectiveness and integrity, overwash, and leakage problems, boom positioning and security, and sorbent replacement as necessary.

Strategy 4-030.3 Objective: Exclude oil from creek with fencing.

When creek mouth is closed install excelsior fencing along top of natural berm to capture oil when there is a potential for high tidal washover.

When creek mouth is open use a filter barrier for exclusion/containment – Use this method when the cross-section of the watercourse does not exceed 20 feet in width, water flow volume is low, the channel bottom is capable of receiving and holding metal stakes, the spill consists of heavy petroleum, and berming or booming methods are not feasible due to lack of materials or accessibility. Construct a filter barrier across the channel using two parallel rows of metal stakes, upon which construction fencing is fastened. Place permeable sorbent materials such as snare or excelsior, between the two lines of fencing to capture oil. Re-adjust sorbent materials as necessary minimize entrainment and/or leakage and to accommodate flow, tidal, oceanic, and meteorological changes. Replace sorbent materials as necessary to maintain sorbent quality.

Strategy 4-030.4 Objective: Exclude/deflect oil from this area.

Offshore containment and recovery (OCR) is the preferred option although heavy surf may hinder these operations. No specific response equipment listed due to the many variables associated with each spill regarding OCR. Early consideration should be given to the use of applied response technologies.

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no	Anchoring type and gear	Boom boat	Skiffs punts	Skimmers No	Skimmers Type	Special Equipment or comment No	Special Equipment or comment and kinds	staff deploy	Staff tend
4-030.1								1	SSS			Backhoe or sandbags, piping, plastic sheeting	4-6	
4-030.2		200			2			1	SSS				2-4	
4-030.3			200 FF					1	SSS			Excelsior fencing, metal stakes	2-4	
4-030.4		0		0	0		0			0		Offshore containment & recovery		

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

From the south: Take HWY 101 N to Hwy 1 Morro Bay exit in San Luis Obispo. Creek is 1 mile north of Piedras Blancas Lighthouse.
From the nort: Take HWY 101 S to Hwy 46 W to Hwy 1 N or (Hwy 5 S to Hwy 41W to Hwy 46 W to Hwy 1 N).

LAND ACCESS: Foot access only.

WATER LOGISTICS:

Limitations: depth, obstruction

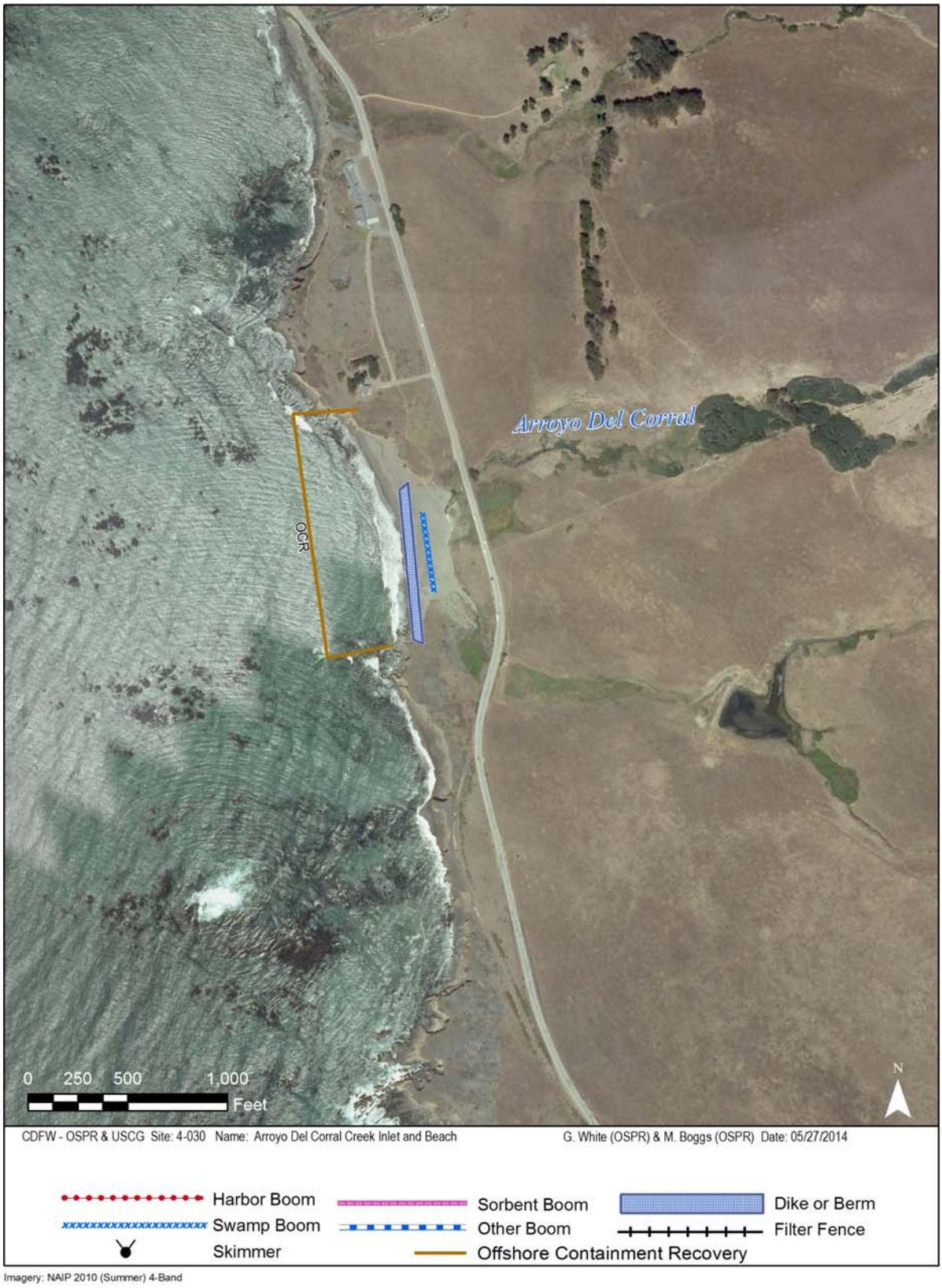
Launching, Loading, Docking and Services Available: Morro Bay boat launch is approx. 40 miles south.

FACLITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Command post and Staging area: U.S. Geological Survey research facility is located at the Piedras Blancas Lighthouse; staging, parking, water, and phones are available. State Parks office at Hearst Castle.
Airports: SLO County Airport, approx. 1 hour south. Paso Robles Airport approx. 45 min. inland. Private Landing strip for small planes north of Hearst castle Visitors center, approx. 15 min. south.

COMMUNICATIONS PROBLEMS:

ADDITIONAL OPERATIONAL COMMENTS:


Arroyo Del Corral
OCR
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Feet
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CDFW - OSPR & USCG Site: 4-030 Name: Arroyo Del Corral Creek Inlet and Beach
G. White (OSPR) & M. Boggs (OSPR) Date: 05/27/2014
Harbor Boom
Swamp Boom
Skimmer
Sorbent Boom
Other Boom
Offshore Containment Recovery
Dike or Berm
Filter Fence
Imagery: NAIP 2010 (Summer) 4-Band