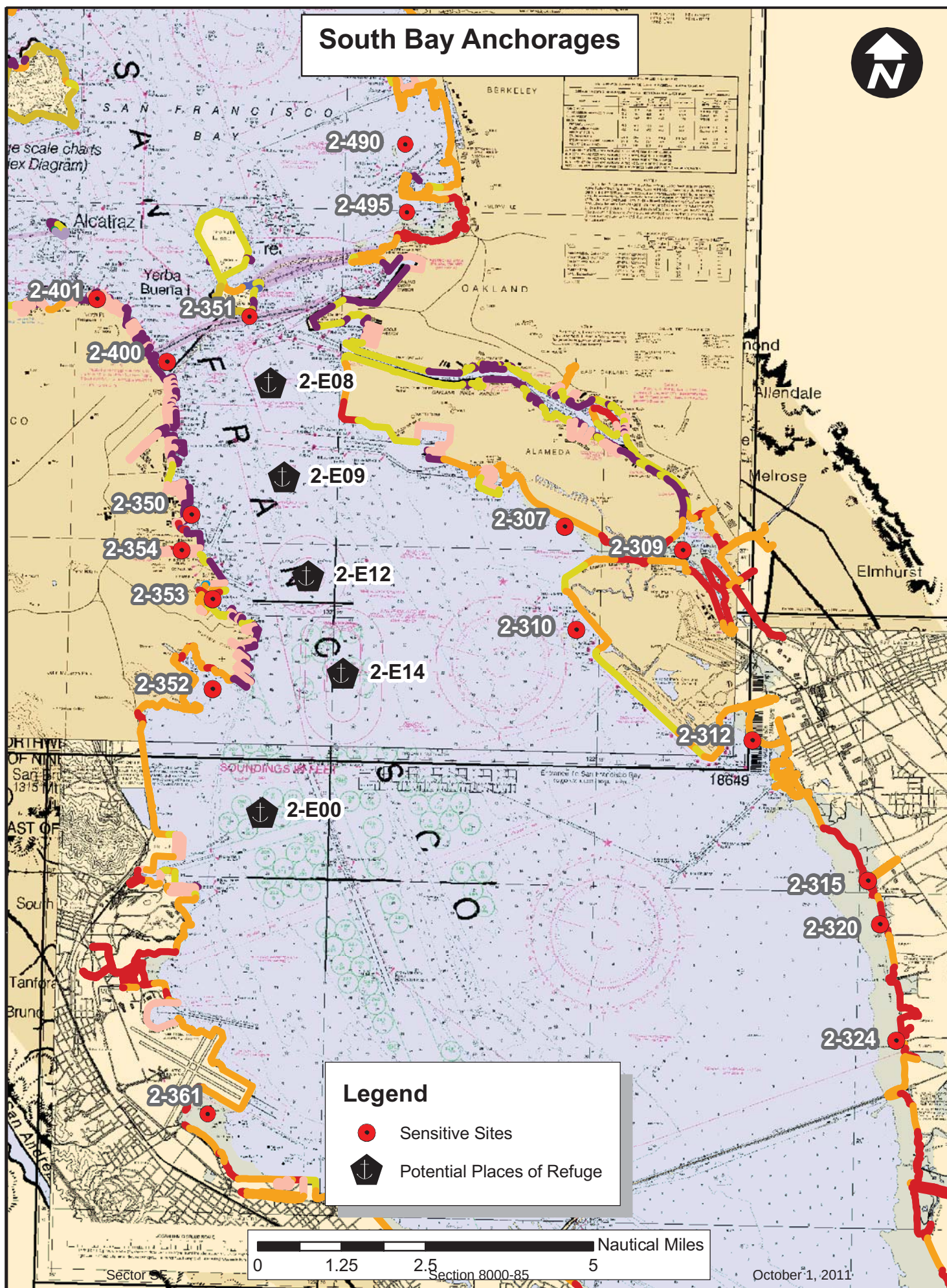
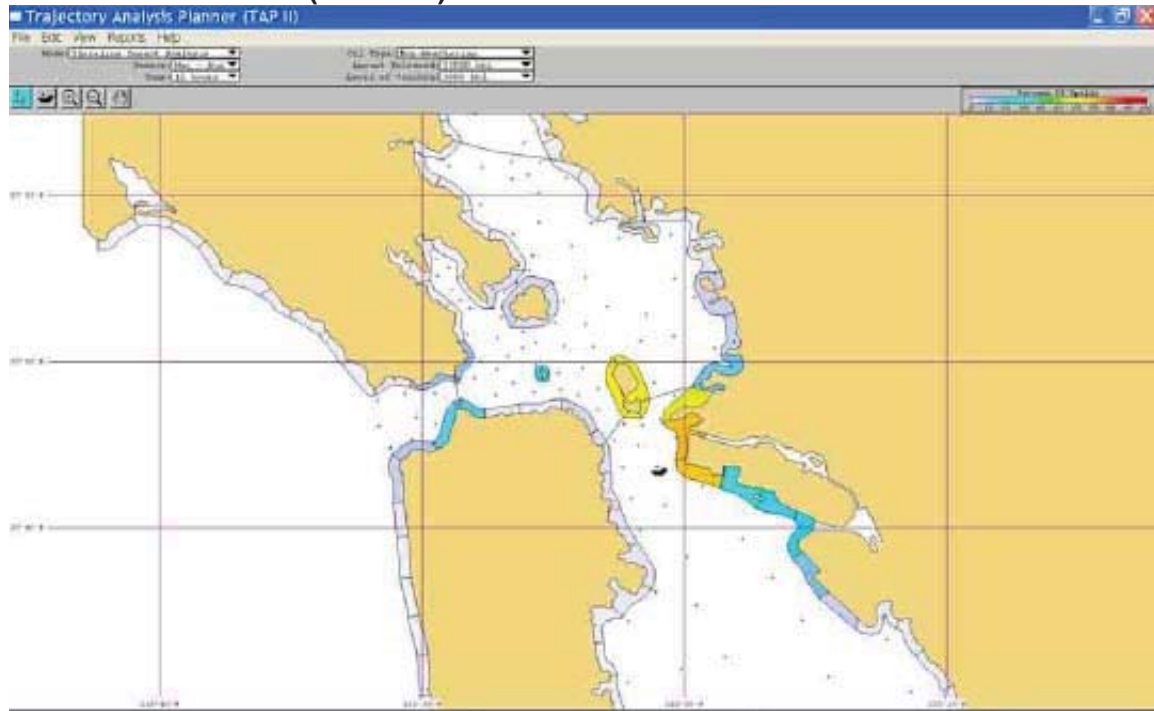


South Bay Anchorages

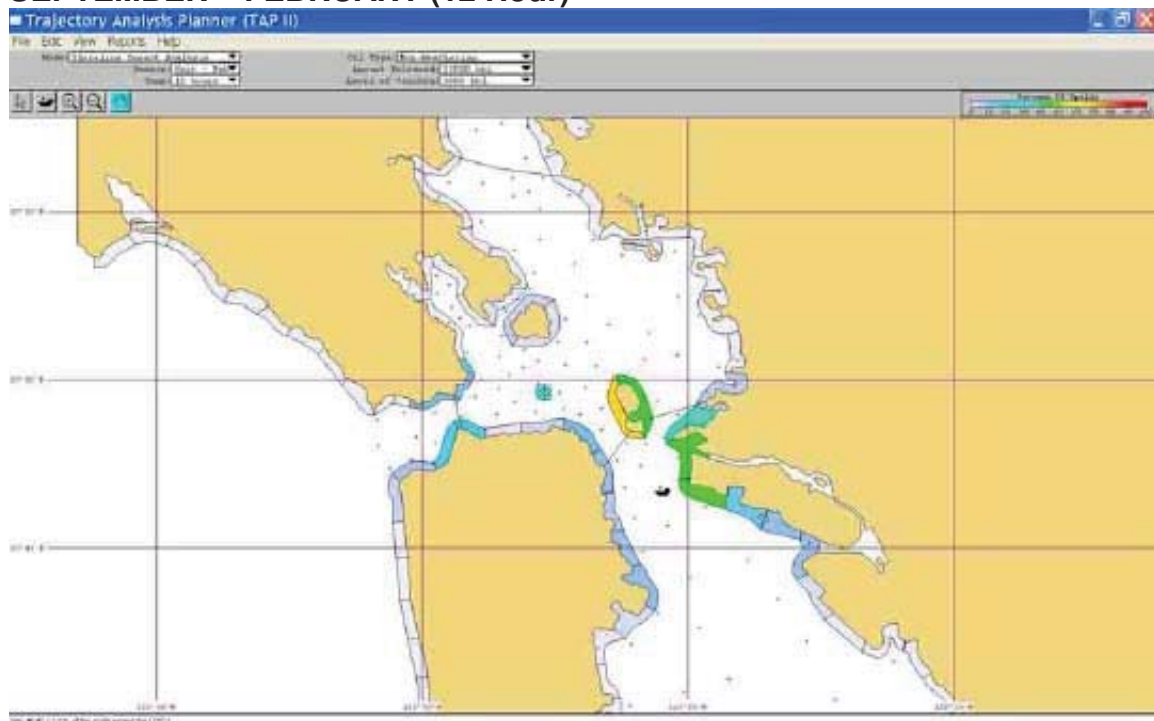


TRAJECTORY ANALYSIS PLANNER (TAP Model)
Location: 2-E09 (Anchorage 9)

MARCH – AUGUST (12 Hour)



SEPTEMBER – FEBRUARY (12 Hour)



PPOR Pre-Incident Information Summary South Bay Anchorages: Anchorage 9

Latitude 37° 46' 122.4 Longitude 122° 2 122.35

County San Francisco-Alameda

2-E09

Type:
Anchorage

Location Description:

Anchorage No. 9. In San Francisco Bay bounded on the east by the eastern shore of San Francisco Bay and on the north by the southern shore of Alameda Island and a line beginning at 37°46'21.5" N, 122°19'07" W; thence westerly to 37°46'30" N, 122°21'56" W; thence south-southeasterly to 37°41'45" N, 122°20'22" W (San Bruno Channel Light 1); thence south-southeasterly to 37°38'38.5" N, 122°18'48.5" W (San Bruno Channel Light 5); thence southeasterly to 37°36'05" N, 122°14'18" W; thence northeasterly to shore at 37°37'38.5" N, 122°09'06.5" W (NAD 83).

Marshes in this area support large populations of endangered California clapper rails and salt marsh harvest mice, and managed ponds support the largest population of Western snowy plovers in San Francisco Bay. The Bair Island Restoration Project and the South Bay Salt Pond Restoration Project (the largest tidal marsh restoration project on the west coast of the United States) are being implemented within this area by the USFWS and the California Department of Fish and Game. Almost 20,000 acres of former commercial salt ponds are targeted for restoration in the South Bay.

Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

(East Shoreline)

Alameda NAS-(S/F E/E) California least tern, present Apr-Aug, nest May-Aug, restoration area.

San Leandro Bay/Arrowhead Marsh-(S/F E/E) California clapper rail present year-round and nests Mar-Jul, (S-T) black rail nests Mar-May,(S/F E/E) salt marsh harvest mouse, (S/F T/T) salt marsh wandering shrew present year-round, (SSC) salt marsh common yellowthroat present year-round. Also, (S/F-E/E) California least tern forage.

Bay Farm Island (F/T) Western snowy plover present Feb-Sep, also rare plant alkali milk-vetch present year-round.

Oyster Bay Marshes-(F/T) Western snowy plover nest present from Feb-Sep; (S/F T/T) salt marsh wandering shrew present year-round.

San Lorenzo Creek/Bunker & North marshes - (S/F E/E) California clapper rail present year-round and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest mouse present year-round. (S/F E/E) California least tern forage.

Oro Loma, Frank's Dump West & Triangle marshes - (S/F E/E) California clapper rail and (S-T) black rail forage and nest, (S/F E/E) salt marsh

Critical Habitat for TAES:

Arrowhead Marsh supports a number of listed/sensitive species and currently has the highest density of breeding California clapper rails in San Francisco Bay. Emeryville lagoon/mudflat provides pickleweed habitat for listed species. East Bay Regional Park District shoreline salt marshes support number of listed species.

Heron's Head Park/India Basin and Islais Creek/Pier 94 have high value as salt marsh habitat on industrialized SF Peninsula. Also suitable habitat for presence of (S/F-E/E) salt marsh harvest mouse.

PPOR Pre-Incident Information Summary South Bay Anchorages: Anchorage 9

Latitude 37° 46' **Longitude** 122° 2' 122.35

County San Francisco-Alameda

2-E09

Type:
Anchorage

harvest mouse present year-round. S/F E/E California least tern and (F/T) western snowy plover forage.

Cogswell, Hayward & HARD marshes – (S/F E/E) California clapper rail present year-round, forage and nest; (S/F E/E) salt marsh harvest mouse present year-round; (S/F E/E) California least tern present Apr-Aug, nests May-Aug; (F/T) western snowy plover forage/nest in salt-pond area.

Emeryville Lagoon/Mudflat (S/F-E) California clapper rail, (S/F-E) salt marsh harvest mouse present year-round, also North Coast bird's beak (rare plant).

(West Shoreline)

YBI-(S/F E/E) peregrine falcon present year-round, nest Mar-Aug.

Heron's Head Park/India Basin and Islais Creek/Pier 94: (F/E) California seablite plant present year-round at HHP. Both potential suitable habitat for (S/F-E/E) salt marsh harvest mouse.

Colma Creek area marshes – (S/F E/E) California clapper rail present year-round, nesting Mar-Jul.

Airport Mudflat – (S/F E/E) California clapper rail present year-round in marsh in back of cove, nesting Mar-Jul.

(S/F E/E) California clapper rail present year-round in several small strip marshes between Colma Creek and Bair/Greco area, nesting Mar-Jul.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:307C/A,309A,310C/A,312A,315A,320A,324A,350E/X,351A/B,352B,353A,354A,361A,400C/X,401B,490A,495A; ESI/SFB-Maps 16,17,18,19,20, 21,22

(East Bay Shoreline) Alameda NAS eelgrass, harbor seal haulout area. Alameda eelgrass beds support herring spawning in winter, seabirds/shorebirds utilize area year-round, brown pelican May-Nov. San Leandro Bay/Arrowhead Marsh supports listed species,

Critical Habitat for Non-protected (Non-TAES) Species:

East Bay Regional Park District shoreline salt marshes have extensive cordgrass and mudflats which support listed and non-listed species.

In general, extensive mudflats on both east and west bay shorelines support heavy use by variety of shorebirds (e.g., herons and egrets), wading and diving birds, and harbor seals. Open waters support heavy use by migratory waterfowl. Sloughs, mudflats support fish, shellfish, infauna.

PPOR Pre-Incident Information Summary South Bay Anchorages: Anchorage 9

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rare/sensitive plants, wading birds, shorebirds, waterfowl, brown pelican forage. Bay Farm Island eelgrass beds support herring spawning in winter, seabirds/shorebirds utilize area year-round. Oyster Bay marshes and mudflats support migratory waterfowl, shorebirds. San Lorenzo Creek/Bunker & North marshes and Oro Loma, Frank's Dump West & Triangle marshes and Cogswell, Hayward, HARD marshes support heavy use by migratory waterfowl, shorebirds, wading (e.g., heron, egret nesting), and diving (Caspian terns) birds. East span Bay Bridge supports large double-crested cormorant colony. Emeryville Lagoon/Mudflat important habitat for seabirds, shorebirds, migratory waterfowl for roost/forage, listed species, rare plants.

(West Bay Shoreline) SF South Collection-herring spawn in winter, seabirds and fish present year-round. YBI-Small cobble pocket beaches south side island are pinniped haulout/rookery Mar-Jun, bird roosting (double-crested cormorant) year-round, nesting. South Basin/Hunters Point important fringe marshes, tidal mudflats, eelgrass, concentrations waterfowl/shorebirds present year-round, higher numbers (1000s) in winter, brown pelican May-Nov. Heron's Head Park/India Basin and Islais Creek/Pier 94 wetland restoration sites with high ground vegetation, pickleweed marsh, saltmarsh ponds/lagoons, mudflats supporting variety water birds, shorebirds, upland songbirds. Airport Mudflat and cove serve as feeding/resting area for waterfowl, wading birds, shorebirds, highest use in winter. SF Waterfront herring spawning in winter, birds roost/forage year-round. Pier 39 sea lion haulout year-round, highest numbers Aug-Mar.

Subsistence-use Species:

Essential Fish Habitat:

Bay fish species move in/out of channels and ponds in these areas.

Commercial Fisheries / Species:

Commercial fishing from TI/YBI. Herring spawning in shorelines of Berkeley and Emeryville eelgrass beds.

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Cultural/historic resources likely present in/around Arrowhead Marsh and Bay Farm Island. EBRPD shoreline Ohlone cultural sites in area. Hayward Landing is historic site.

Recreational Species and Habitat:

Elsie Roemer Bird Sanctuary located southeast end of Crown Beach.

Human Health / Safety Concerns and Economic Issues for this Place / Site

PPOR Pre-Incident Information Summary South Bay Anchorages: Anchorage 9

Latitude 37° 46' 122.4 **Longitude** 122° 2' 122.35
County San Francisco-Alameda

Human Health and Safety

Anchorage 9 are near population centers of San Francisco (764,976), Oakland (420,183) and Alameda (72,259)--population are provided in parenthesis.

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing.

Economic Impact on Recreational Fishing and Marine Tourism:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing. Marine Tourism might be affected.

Stakeholder List for this Place / Site

Name / Title	Organization	Phone	more details
Park Supervisor	EBRPD-Hayward Regional Shoreline Park	(510) 544-3082	
Park Supervisor	EBRPD-Martin Luther King Shoreline Park	(510) 544-3115	
Park Supervisor	EBRPD-Crown Memorial State Beach	(510) 544-3171	
Shoreline Unit Manager	East Bay Regional Park District	(510) 544-3172	
Dispatch	East Bay Regional Park District	(510) 881-1833	
City of Alameda, Parks	City of Alameda Dept. of Parks and Recreation	(510) 748-4565	
Joy Albertson	US Fish & Wildlife Service, SF Bay (NWR)	(510) 792-0222	
Carol Bach	Port of San Francisco	(415) 274-0568	
Baylands Nature Pres Office	Baylands Nature Preserve	(650) 329-2506	
John Bradley Refuge Manager	SF Bay National Wildlife Refuge Complex	(510) 792-0222	
Dispatch GGNRA	US National Park Service, Golden Gate (NRA)	(415) 561-5505	
John Krause	CA Dept. of Fish & Game, Region 3	(415) 454-8050	
Clif Marceetti Marina Manager	Berkeley, City of, Dept. of Parks	(510) 981-6737	
Butch Paredes	Cargill Salt	(510) 790-8165	
City of San Francisco	San Francisco, City and County of	(415) 556-8371	
Linda Scourtis	SF Bay Conservation and Development Commission	(415) 352-3644	
Operations State Water Project	CA Department of Water Resources	(916) 574-2714	

Sector SF

Section 8000-102

October 1, 2011

2-E09

Type:
Anchorage

Economic Impact on Maritime Commerce and Shipping:

May affect shipping lanes to Alameda Point, Entrance to Oakland Inner Harbor Channel and the Port of Redwood City. Redundant piers and accommodations exist to counter problems that may arise as a result of a Placer of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Nothing significant other than onward movements of cargoes from ships that may be stuck at anchorages

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitan areas due to a fear factor.

PPOR Pre-Incident Information SummarySouth Bay Anchorages: Anchorage 9

Latitude 37° 46' 122.4 Longitude 122° 2 122.35
County San Francisco-Alameda

2-E09
Type: Anchorage

Characteristics and Tactical Considerations

Primary Jurisdictional Contact: USCG Sector SF Marine Fire Fighting Resources SF PIER 24: 37-47.42, 122-23.24

Approximate Tug Response Time 30 MINUTES

List of Nearby Environmentally Sensitive Sites SFACP2: 307C/A,309A,310C/A,312A,315A,320A,324A,350E/X,351A/B,352B,353A Is Containment Possible?

Coast Pilot and Navigation Chart Information

Prevailing Winds	Tidal Range	Bottom Type	Max Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
W	6	MUD	60	0			SEASONAL	NO		☒

Specific Site Details

Site ID	Site Name	Vessel Capacities			Site Capacities and Facilities		Containment Possibilities:
		Max Size	Mini Size	Max Draft	Swing Room or Dock Face	Facilities, capabilities, and any other issues or concern	
09	Anchorage 9	1500	Deep	55		SWING ROOM OR DOCK FACE: 1 / 2 MILE SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN AND PHOENIX SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN AND PHOENIX: OTHER FIREFIGHTING RESOURCES COME FROM FOSS/CHEVRON/OAKLAND AND RICHMOND.	Potential for successful primary containment increases the further south one goes in the Bay because currents significantly diminish to the south. Anchorage 8 is not likely to have good primary containment. Potential for secondary confinement of oil escaping primary containment is minimal because the only opportunity is the openwater which is problematic due to spreading even if there is no current exceeding 0.7 knt.

Site Contact /Leasee/Owner: VTS ON CHANNEL 14