# Site Summary- Joice Island, Suisun Slough, and Montezuma Slough



| Thomas Guide Location | Latitude N | Longitude W |
|---|---|---|
| | 3 8 08 | 122 04 |

**County:** Solano

**USGS Quad:** Fairfield South, Vine Hill

**NOAA Chart:** 18656 Suisun Bay

**Last Page Update :** 1/1/1994

**SITE DESCRIPTION:**

This site includes the mouth of Suisun Slough and Montezuma Slough and the marshy tip of Joice Island at the northeast corner of Grizzly Bay. Joice Island lies between the mouths of the Montezuma Slough and Suisun Slough. The southern tip of Joice Island is undiked marshland with numerous small channels connecting it with Grizzly Bay. While the marshy tip is a large natural wetland, the greater concern is the strategic importance of these two great tidel sloughs. These two sloughs are the main tidal avenue for all of Suisun Marsh, the largest wetland of California. These two waterways could become conduits for oil conveyance to the extremes of Suisun Marsh. There are miles of branching channels between the diked marshes and at times when tide gates are open (particularly in the fall and winter) to the vast acres of duck club and wildflife refuge marshes behind the island levees. Most of Suisun Marsh is owned by duck clubs or is part of the Californian Deptment of Fish and Wildlife, Grizzly Island Wildlife Refuge system. Lower Joice Island has become a public property and is being operated for marsh research.

**SEASONAL and SPECIAL RESOURCE CONCERN**

The marsh is "A" priority all year. The area supports endangered species and is very important to migratory waterfowl.

**RESOURCES OF PRIMARY CONCERN**

Primary habitats at risk are those up-channel which would be threatened if oil were to enter the sloughs. The marsh at the tips of Joice and Grizzly Islands is unleveed and in a near natural state. The margins of Montezuma and Suisun Slough are emergent marsh.

The area is of major importance to migratory waterfowl and to marsh bird and waterbird breeding. Special Status Species include: endangered California clapper rail, threatened black rail, Suisun song sparrow, and saltmarsh common yellowthroat. An even wider variety of waterfowl, waterbirds, shorebirds, passerines, raptors, and other birdlife winter here.

The saltmarsh harvest mouse is found throughout these marshes. Semiaquitic species like mink, otter, beaver, etc., occur thoughout the area.

Endangered fish including: delta smelt and winter run chinook pass though these waters.

Several rare plants are also found here: delta tule-pea, (Lathyrus jepsonii spp jepsonii), soft bird's beak (Cordylanthus mollis ssp. mollis), and Suisum aster (Aster chilensis var. lentus)

**CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES**

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Bryan Much, Sonoma State College (707) 332-1117) for specific information on historic or cultural resources in this area.

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

| Type | Name / Title | Organization | Phone |
|---|---|---|---|
| BTEL | Grizzly Isl W/L Refuge | CA Dept. of Fish & Wildlife | (707) 425-3828 |
| | John Henderson F/W Biologist | US Fish & Wildlife Service, Environmental Contam | (916) 414-6595 |
| | Eric Larson | CA Dept. of Fish & Wildlife, Bay/Delta | (707) 944-5528 |
| | Staff Office | Suisun Resource Conservation District | (707) 425-9302 |

**ADDITIONAL SITE SUMMARY COMMENTS:**

| County and Thomas Guide Location | NOAA CHART | Latitude N | Longitude W |
|---|---|---|---|
| Solano | 18656 Suisun Bay | 3 8 08 | 122 04 |

Last Page Update : 2/25/2011

**CONCERNS and ADVICE to RESPONDERS:**

This site is the mouths of Suisun Slough and Montezuma Slough where oil entry would result in exposure to miles of marsh. Between these two slough mouths is sensitive marsh with small tidal channels leading into the unleveed marsh. The objectives in order of importance are: 1) are to exclude oil from entering the major sloughs, 2) to close the small tidal sloughs near the mouths of the big channels, and 3) to protect exposed margins from oiling. Responders should avoid trampling marsh vegetation and tracking oil into marsh and sediments.

**HAZARDS and RESTRICTIONS:**

Shallows.

## SITE STRATEGIES

Strategy 2-655.1 Objective: Prevent oil from entering Montezuma and Suisun Sloughs, and from entering tidal inlets of Joice Island: Exclusion booming offshore of Sloughs and Joice Island / Prevent oil from entering vast interior wetlands as well as Joice Island.

Outside of Suisun and Montezuma Sloughs: use exclusion booming. Deploy 7,500 ft Hb (9x9+) or Swmpbm (6x6+) (depending on wave chop) from shoreline 400' south of Suisun Slough to 200' west of Montezuma Slough

Strategy 2-655.2 Objective: Exclude from minor and major sloughs: deflect to collection Suisun and Montezuma Slough mouths and chevron exclusion at tidal inlets.

a) At Suisun and Montezuma Slough mouths: exclude oil by deflection to collection. From the shoreline, deploy collection boom arms to collection by stationary floating skimmer (SFS) or self propelled skimmer (SPS) positioned in the channels. About 2000 ft of 9X9+ harbor boom will be needed for Suisun Slough and about 1700' for Montezuma Slough

b) At the tip of Joice Island, there are nine or more tidal inlets to the marsh at the tip of Joice Island between Montezuma and Suisun Sloughs. To exclude oil, deploy swamp boom (4X4+) in a chevron "V" outside the mouth of each opening: using skiffs, anchor the midpoint and stake or anchor the ends at the shoreline outside the channel mouths. 50' lengths will be needed for most openings. About 800 ft of boom will be needed for this deployment.

Strategy 2-655.3 Objective: Protective booming of undiked tip of Joice Island

Protective Booming: If it appears that othe strategies will not keep oil out of the wetlands recommend that exclusion boom be deployed along the face of the marsh where feasible. The portion of Joice Island lying between the entrances to Suisun and Montezuma Sloughs is a high priority for such protection. It is estimated that 8,000 to 9,000 ft of exclusion boom will be required to exclude oil from the undiked wetlands at the south end of Joice Island. A strategy for deployment of exclusion boom is illustrated in Potential Oil-spill Protection Strategies for San Francisco Bay, California (Hayes and Montello, 1994)

**Table of Response Resources**

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-655.1 | 7500 | | | | 25 | 25/22+/danforths + chain | 10 | 2 | | | | | 14 | |
| 2-655.2 | 3700 | 800 | | | 28 | 28/22+/danforths + chain | 6 | 4 | 2 | SPS | | | 12 | 6 |
| 2-655.3 | 9000 | 0 | 0 | 0 | 15 | 15/22+/danfroths + chain | 10 | 2 | 0 | | 0 | | | |

## LOGISTICS

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

Access by water only. Iif launching from Benicia/Martinez, proceed northeast past the Reserve Fleet and into northwest corner of Grizzly Bay. From Pittsburg, go northwest via Suisun Cut to Grizzly Bay and on the Montezuma. From Suisun/Fairfield, travel down Montezuma or Suisun Slough to their mouth on Grizzly Bay. This site includes the mouth of Suisun Slough and Montezuma Slough and the marshy tip of Joice Island at the northeast corner of Grizzly Bay.

**LAND ACCESS:** no land access except by foot.

**WATER LOGISTICS:**
Limitations: depth, obstruction — no limitations except shallow margins.

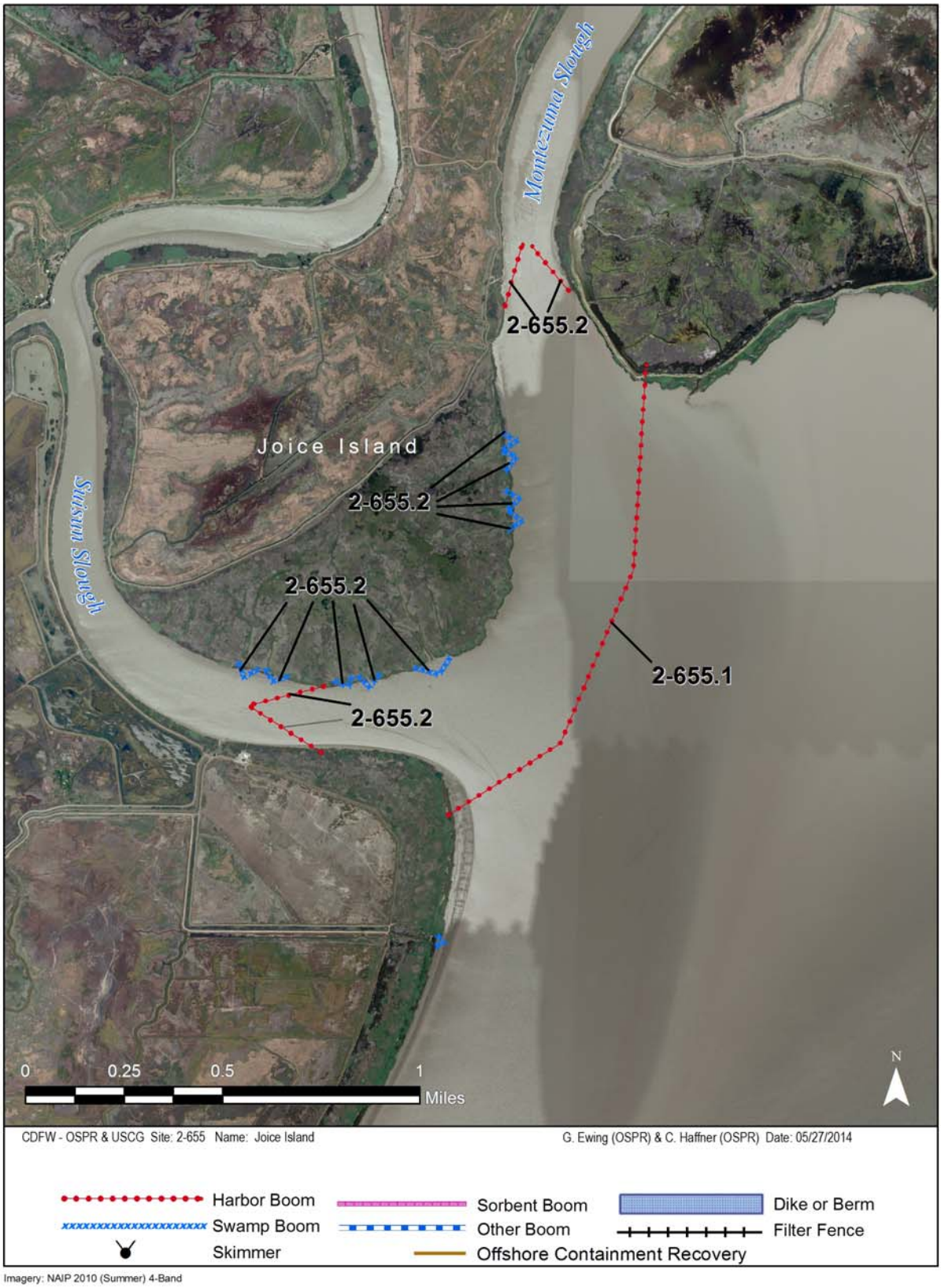
Launching, Loading, Docking and Services Available: launch, fuel, moorage at Benicia & Martinez Marinas and City of Suisun. Also, lauch ramp at nearby Pierce Harbor.

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

Best staging at Martinez or Benicia sites.

**COMMUNICATIONS PROBLEMS:** none known

**ADDITIONAL OPERATIONAL COMMENTS:**


Montezuma Slough
Suisun Slough
Joice Island
2-655.2
2-655.2
2-655.2
2-655.2
2-655.1
0
0.25
0.5
1
Miles
N
CDFW - OSPR & USCG Site: 2-655 Name: Joice Island
G. Ewing (OSPR) & C. Haffner (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