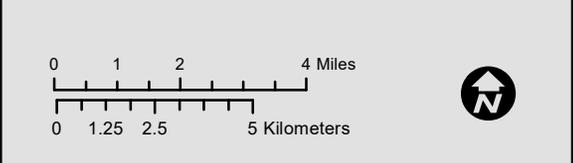



Calif. Dept. of Fish and Wildlife
 Office of Spill Prevention and Response
 Data Source: OSPR GIS
 Requestor: C. Shinn
 Author: G. Ewing
 Date Created: 3/25/2022

ACP 2 - GRA 9 Environmental Site Overview

Sacramento County



ACP 2 – South Delta

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9822 South Delta (GRA 9)

9822.1 Geographic Response Strategies for Environmental Sensitive Sites

9822.1.1 GRA 9 Site Index

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County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 38.071855 -121.572358**Site Description:**

Site is from intersection of Old River and Deep Water Channel at R53 to Frank's Tract. This one mile long section of Old River is wide and deep with berm islands paralleling rip-rapped levees. The berm islands are vegetated with emergent freshwater marsh and scrub habitat. Waves and currents may be strong here.

Resources at Risk:*ESI andHabitat:* 6B Riprap

9B Vegetated low banks

8B Sheltered solid man-made structures

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Fish	delta smelt	FT, SE		Mar-May
Fish	longfin smelt	ST		Nov-May
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

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E	/Manager	Central Delta Water Agency	(209) 969-7755
E	/Dispatch, 24-hr	Contra Costa Water District	(925) 688-8374
E	/Office	Mandeville Island Reclamation District	(209) 946-0268
E	/Office	Webb Tract Reclamation District	(209) 943-5551
O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	Contra Costa County Office of the Sheriff	(925) 468-4421
S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
T	/Environmental Program Manager	CA Dept. of Fish & Wildlife, Bay Delta Region	(707) 576-2837
T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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Additional Site Summary Comments:

This area is designated as a significant natural area by CDFW. There area several sensitive plant species that occur here also.

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marsh islands and margins will be oiled. These marsh rich areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into sediments.

Hazard and Restrictions:

Aerial traffic beware of powerlines. Shallows at margins.

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

Strategy: 2-900.1 Objective: Exclusion booming Old River at the mouth. Wind wash and strong currents can be a problem.

Strategy: A) Set an exclusion-diversion boom across the mouth at a diagonal to land oil on the Mandeville levee. Anchor one end near the Webb Tract tip and set 1500' of 1500' of 9X9 Hboom diagonally to anchor the other end near the Mandeville levee. Leave a trailing boom length to maintain seal during tidal vacillations.

B) Set 200' of 6X6 Sboom across mouth of slough parallel to the above boom. Anchor one end near the unnamed tule island tip and anchor the other near the Mandeville levee. Back with sorbent.

C) Multiple layers may be necessary to brake the wave chop: repeat (step 1) as necessary.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		2000	feet	
Boom	Swamp	6x6 inch		200	feet	
Boom	Sorbent			200	feet	
Anchor	Danforth	22 lb		11		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Logistics:

Directions: Key access to site is by boat, from Stockton Deep Water Channel at R53 from marinas at Mokelumne. Vehicle access is very restricted: private levee roads via convoluted routes: Hwy 4 to Jersey Island Rd to private ferry to Webb Tract and Hwy 4 to Bacon Island Rd to Bacon Island to Mandeville Island.

Land Access: Access via levee roads when they are dry, stay off when saturated.

On-Water Limitations: Deep draft, except near shore. Nearest boat launch and marine service is at the mouth of the Mokelumne. Additional marine facilities are at Bethel Island or 8-mile road.

Facilities, Staging Areas, Command Posts, Available Equipment: Good deployment sites and facilities are at marinas above: rental boats, fuel, restaurants, water, and some camping and lodging. Consider the Mokelumne mouth as an area deployment site.

Communications Problems: Cell reception varies.



County: Contra Costa **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 38.044411 -121.603692**Site Description:**

Franks Tract is a submerged 3,507 acre island managed under Ca Dept of Parks and Recreation as a State Recreational Area. It is located at the intersection of Piper Slough to west, False River to north, Old River to east, Sand Mound Slough to south. The flooded island is surrounded by broken levee remnants and berm islands of bordering waterways. Some of the tract can be seen from the levee road on Bethel Island and the Holland Tract.

Resources at Risk:

ESI and Habitat: 10B Freshwater marshes
9B Vegetated low banks
8C Sheltered riprap

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	delta smelt	FT, SE		Mar-May
Fish	longfin smelt	ST		Nov-May
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Plants	Mason's lilaeopsis	SR		Apr-Nov
Plants	Suisun marsh aster	SSSP		May-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

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E	/Dispatch, 24-hr	Contra Costa Water District	(925) 688-8374
E	/Office	Mandeville Island Reclamation District	(209) 946-0268
E	/Office	Webb Tract Reclamation District	(209) 943-5551
O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	Contra Costa County Office of the Sheriff	(925) 468-4421
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T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
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Additional Site Summary Comments:

Submerged obstacles likely, transit slowly with caution.

Concerns and Advice to Responders:

No Strategy has been developed. This site has many resources, including emerging marsh islands around the perimeter, and is a part of the path for potential spread of oil.

Hazard and Restrictions:

Vessels beware of submerged objects and shallows at margins. Aircraft beware of powerlines.

Site Strategies:

Site Validation Level: 0

Strategy: 2-905.1 Objective:

Strategy: Execute adjacent strategies to exclude flow into and out of the site.

Table of Response Resources

Last Page Update

Logistics:

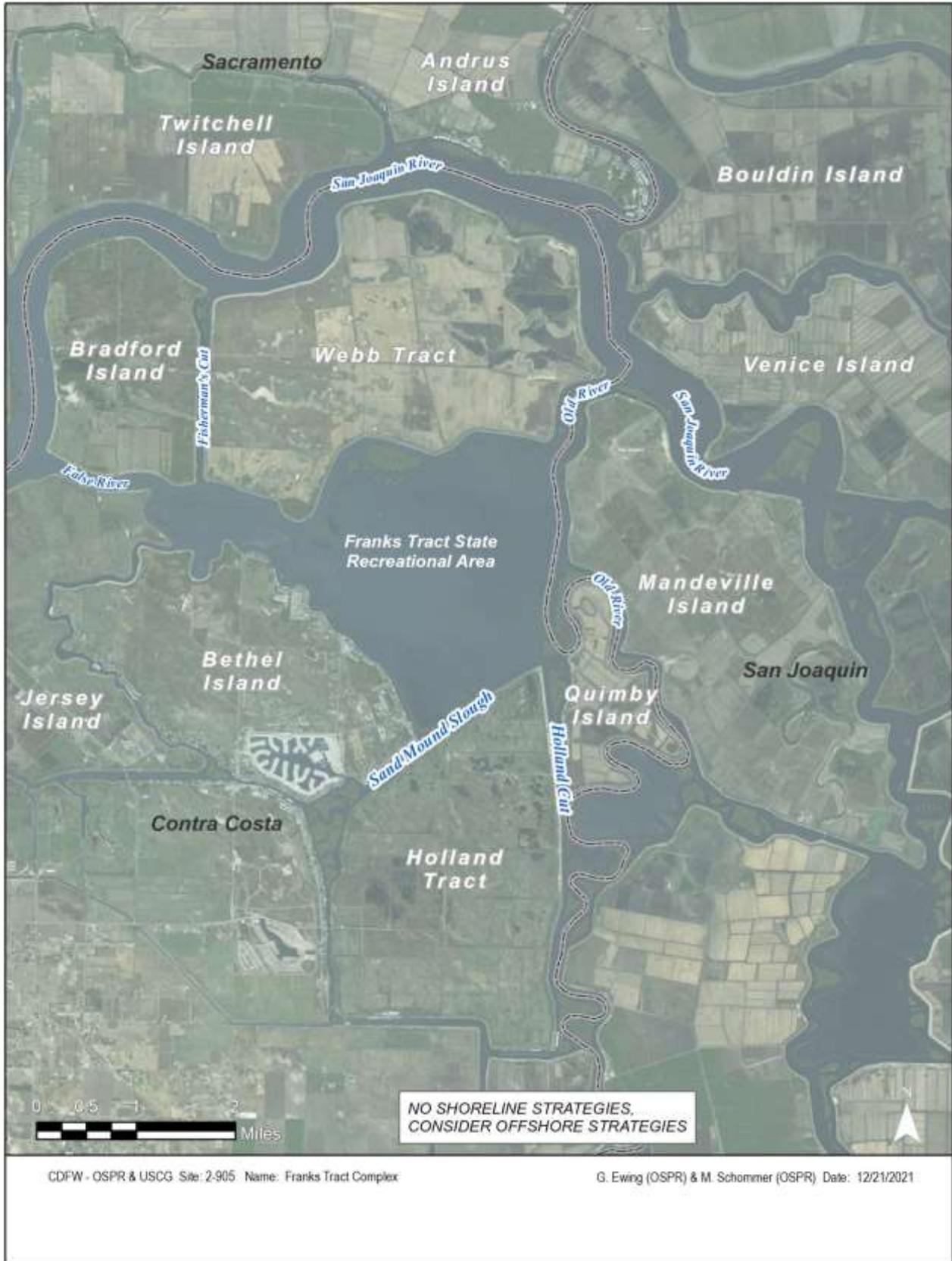
Directions: Highway 4 to Bethel Island area. Closest launch ramp is Sugar Barge Resort or Russo's Marina.

Land Access: No limitations to Bethel Island.

On-Water Limitations: There are a few shallows and obstructions. Bethel Island marinas. Closest launch ramp is Delta Resort.

Facilities, Staging Areas, Command Posts, Available Equipment: Staging at fire station in Bethel Island.

Communications Problems: Cell reception may vary.



County: Contra Costa **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 38.014794 -121.610916**Site Description:**

Bounded by Franks Tract on the north, Dutch Slough on the west, Rock Slough on the south, and the levee of Holland Tract on the east. The slough has extensive mid-channel marsh islands and emergent vegetation. West side levees of Bethel Island are developed with residences and marinas. East side levees of Holland Tract are undeveloped and covered with rip-rap.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

8B Sheltered solid man-made structures

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	California black rail	FP, ST		Mar-Aug
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	longfin smelt	ST		Nov-May
Fish	delta smelt	FT, SE		Mar-May
Fish	chinook salmon - Winter-run	FE, SE		
Plants	Mason's lilaeopsis	SR		Apr-Nov
Plants	Suisun marsh aster	SSSP		May-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct

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E	/Dispatch, 24-hr	Contra Costa Water District	(925) 688-8374
E	/Office	Hotchkiss Tract Reclamation District	(925) 684-2398
E	/Office	Mandeville Island Reclamation District	(209) 946-0268
E	/Office	Webb Tract Reclamation District	(209) 943-5551
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C – Cultural, Historic, Archaeological; E – Entry/Owner/Access; O – Other; S – Safety; T – Trustee; X – Exclusion or Security

Additional Site Summary Comments:

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marsh islands and margins will be oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

Hazard and Restrictions:

Hazards are shallow water throughout the site. Be aware of overhead powerlines southwest of slough.

Site Strategies:**Site Validation Level: 0****Strategy: 2-908.1 Objective:** Exclude Oil

Strategy: Deploy strategies for False River, Taylor Slough, Franks Tract (2-905-A), and Dutch Slough.

Table of Response Resources

Last Page Update**Strategy: 2-908.2 Objective:** Exclude Oil

Strategy: Recover oil by on-water skimming or deflect it to a levee for shoreline cleanup. Calm water marinas may also be used as recovery areas provided adequate exclusion and containment booms can be deployed. Line marsh islands with 4x4 boom or sorbent boom. Avoid trampling of marsh and mudflats and avoid in-channel activity from October 15 through May 31 due to the presence of salmon.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Swamp	6x6 inch		3000	feet	
Anchor	Danforth		22 lb	7		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Logistics:

Directions: Take Hwy 4 east to Oakley, to Cypress Road east to Bethel Island Road. Follow to Bethel island or turn right on Sand Mound Slough Road.

Land Access: All types on Bethel. Private levee roads on Holland Tract.

On-Water Limitations: Several launch facilities and marinas throughout slough and Bethel Island.

Facilities, Staging Areas, Command Posts, Available Equipment: Several on Bethel Island and also levee of Holland Tract.

Communications Problems: Cell reception may vary.



County: San Joaquin ACP Division/Segment:

NOAA Chart: 18661 Sacramento & San Joaquin River Map Book: SF Bay and Delta Decimal Degrees: 38.043397 -121.57642

Site Description:

This area is a complex of reclaimed and emerging freshwater marsh islands bordered by Mandeville Island, Franks Tract, Holland Tract, Palm Tract and Bacon Island. It includes Connection Slough, Old River, Sheep Cut, Holland Cut and other various unnamed side channels. This complex of islands has a diverse mix of upland habitat, productive agricultural tracts and riparian woodlands.

Resources at Risk:

- ESI and Habitat: 6B Riprap
- 9B Vegetated low banks
- 8B Sheltered solid man-made structures

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	California black rail	FP, ST		Mar-Aug
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	longfin smelt	ST		Nov-May
Fish	delta smelt	FT, SE		Mar-May
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct
Reptiles	Western pond turtle	SSC		

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

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

Additional Site Summary Comments:

There are a number of sensitive plant species that occur in this area.

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marsh islands and margins will be oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marsh sediments.

Hazard and Restrictions:

Vessels beware of submerged objects and shallows at margins.

Site Strategies:

Site Validation Level: II

Strategy: 2-910.1 Objective: Exclude oil from moving downstream (northerly) into this reach of Old River using exclusion boom.

Strategy: At the southern end of the site at Old River and Railroad Cut:

A) Deploy exclusion boom across the two channels of Old River which flow downstream (northward) with 400-500 ft. of harbor boom. In the west side channel, deflect to the western shore for collection in the pocket.

B) Deploy 250 ft of 9X9 harbor boom across the north channel of Railroad Cut. Deflect oil to the levee of Bacon Island.

C) Boom the two small channels north and west of Railroad Bridge (next to house) with 100 ft. each of harbor boom. The current flow is slow here and mainly wind effects are present.

Use 50 ft of Oil Snare (OS), 100 ft of sorbent boom to collect any oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1000	feet	
Boom	Oil Snare (pom-pom)			50	feet	
Boom	Sorbent			100		
Anchor	Danforth	25 lb		10		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-910.2 Objective: Exclude/collect oil from moving upstream (southward) with the tide into Old River from Frank's Tract.

Strategy: At the north end of the site at the confluence of Old River and Frank's Tract:

A) Deflect oil to the Holland Tract levee for collection at the north tip of the Holland Tract where Old River meets Frank's Tract. Use 9X9 Hboom to take advantage of local eddies and direct oil to for collection from the levee road:

- Deploy 200 ft of boom from the dock inside the Old River channel, and 200 ft in Sandmound Slough near the point of land at the confluence with Old River.

B) Use 18+' deflection boom in each of three channels near this confluence: one channel is a little north of confluence, the other two are on east side of confluence. Each channel will require 200-500 ft. of boom. Deflect to sandy shores, levees, or collection as appropriate. Do not deflect to marshes. Currents in this area are complex and will require site specific observations prior to deployment to determine optimum placement. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect any oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1900	feet	
Boom	Oil Snare (pom-pom)			50	feet	
Boom	Sorbent			100	feet	
Anchor	Danforth	25 lb		8		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-910.3 Objective: Oil Recovery by Shoreside skimming

Strategy: Deploy skimmers when oil accumulates in skimmable quantities. Consult IC prior to the initiation of this strategy.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
skimmer	self propelled			1		
Staff				3		

Logistics:

Directions: Key access to the site is from Highway 4 to Knightsen Road in Knightsen, to Holland Tract Road, to Holland Riverside Marina where the launching facilities are located. Shoreline access Highway 4 to Trapper Rd. on Upper Jones Tract to Bacon Island Rd. across bridge to Bacon Island's levee Rd.

Land Access: Levee roads support all types of transport.

On-Water Limitations: Boat launching facilities are available in and around Frank's Tract and at Sandmound Slough.

Facilities, Staging Areas, Command Posts, Available Equipment: Facilities and deployment sites can be found at Frank's Tract Marinas.

Communications Problems: Cell reception varies.



2-915-A Site Summary - Rock Slough**2-915-A****County:** Contra Costa **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.971906 -121.58098**Site Description:**

This site contains all of Rock Slough from the confluence with Old River at the southeastern tip of Holland Tract to the Railroad bridge to the south, approx 5 river miles. This slough contains berm islands throughout its length with emergent freshwater marsh vegetation and riparian growth along the banks.

Resources at Risk:*ESI and Habitat:* 6B Riprap

10B Freshwater marshes

9B Vegetated low banks

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Birds	California black rail	FP, ST		Mar-Aug
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Fish	delta smelt	FT, SE		Mar-May
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	giant qarter snake	FT, ST		Jul-Oct
Reptiles	Western pond turtle	SSC		

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

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Additional Site Summary Comments:

Numerous sensitive plants occur in the area.

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported through this site to other parts of the delta; and second, that marsh islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

Hazard and Restrictions:

Vessels beware of submerged objects and shallows at margins.

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

Strategy: 2-915.1 Objective: Exclude oil from Rock Slough at the confluence with Old River near Holland Riverside Marina.

Strategy: Deflect and exclude oil from Rock Slough. Deploy Harbor boom of varying length across all channels to Rock Slough and parallel to the current of Old River (see diagram). Any collection/recovery would best be set up in Old River before oil reaches Rock Slough though there are opportunities within Rock Slough.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1000	feet	
Anchor	Danforth	25 lb		4		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Logistics:

Directions: Key access is from Highway 4 east to Oakley. Turn left (east) on Delta Road, Right on Holland Tract Road out to Holland Riverside Marina.

Land Access: All transportation on paved levels. Limitations on some levees.

On-Water Limitations: Good boat launching ramps are available at the Holland Riverside Marina adjacent to the confluence of Rock slough and Old River.

Facilities, Staging Areas, Command Posts, Available Equipment: Facilities and deployment sites can be found/located at the Holland Riverside Marina.

Communications Problems: Cell reception varies.



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.93996 -121.5477**Site Description:**

This site is a pair of artificial channels (that resulted from the construction of an elevated railroad berm) on each side of the Union Pacific Railroad track. These sloughs are located between Bacon (to North) and Woodward (to South) Islands and connect Middle River and Old River. At this site shallow waters combine with emergent freshwater marsh habitat.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	delta smelt	FT, SE		Mar-May
Fish	longfin smelt	ST		Nov-May
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

Additional Site Summary Comments:

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marsh islands and margins will be come oiled. These freshwater marsh areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and sediments.

Hazard and Restrictions:

Vessels beware of submerged objects and shallows at margins.

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

Strategy: 2-917.1 Objective: Exclude / Collect oil at west ends (Old River) and deflect to collection at island levee.

Strategy: Depending on the oil trajectory, set deflections with 250 ft each of 9X9 Harbor boom from the railroad marsh out to the island levees north and south of the railroad. Collect oil with 50ft Oil Snare (OS), 100ft sorbent boom from the levees of Bacon or Woodward Island. Contact IC if oil accumulates in skimmable quantities.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		500	feet	
Boom	Oil Snare (pom-pom)			50	feet	
Boom	Sorbent			100	feet	
Anchor	Danforth	25 lb		5		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-917.2 Objective: Exclude oil at east ends (Middle River)

Strategy: Deploy 400 ft of exclusionary 6X6 swamp boom across north canal, and 400 ft of exclusionary 6X6 swamp boom across south canal. Due to the strong current in Middle River, boom can be laid out at almost a 90 degree angle from the RR, straight across the canal, but parallel to the river current.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Swamp	6x6 inch		800	feet	
Anchor	Danforth	25 lb		5		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-917.3 Objective: Protection booming of marshy entire margin of railroad grade both sides

Strategy: Boom marsh on both sides of railroad in each canal, effectively encircling the railroad island and fringing marsh. Place swamp boom (6X6) or sorbent boom along the marshfront edge.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Swamp	6x6 inch		15000	feet	
Anchor	Danforth	22 lb		31		
Vessel	Boom Boat			5		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			16		

Strategy: 2-917.4 Objective: Oil Recovery by Shoreside skimming

Strategy: Collect oil with a Shoreside Skimming System from the levees of Bacon or Woodward Island if oil accumulates in skimmable quantities. Consult IC prior to the initiation of this strategy.

Table of Response Resources

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

Logistics:

Directions: This site accessible by water by proceeding south from Frank's Tract vicinity down Old River to the Union Pacific railroad crossing, the west mouth of Railroad Cut. The adjacent levee of Bacon Island provides the nearest land access.

Land Access: Adjacent levees can support vehicles when dry.

On-Water Limitations: Small punts can be put in from the levees. Boat launching facilities for larger boats can be found at Franks Tract and Discovery Bay.

Facilities, Staging Areas, Command Posts, Available Equipment: Staging areas can possibly be located along the south levee of Bacon Island or near the junction with Middle River.

Communications Problems: Cell reception varies.



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.926523 -121.558682**Site Description:**

This site is the reach of Old River south from the Union Pacific Rail Bridge to Hwy 4, approx 5 river miles. Although this site is heavily rip-rapped and levied, this reach contains fragile tule berm islands with emergent freshwater marsh habitat and riparian vegetation.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	California black rail	FP, ST		Mar-Aug
Fish	longfin smelt	ST		Nov-May
Fish	delta smelt	FT, SE		Mar-May
Fish	chinook salmon - Winter-run	FE, SE		
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct
Reptiles	Western pond turtle	SSC		

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	/Manager	Central Delta Water Agency	(209) 969-7755
E	/Dispatch, 24-hr	Contra Costa Water District	(925) 688-8374
O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	Contra Costa County Office of the Sheriff	(925) 468-4421
S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
T	/Environmental Program Manager	CA Dept. of Fish & Wildlife, Bay Delta Region	(707) 576-2837
T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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

Additional Site Summary Comments:

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marsh islands and margins will be come oiled. These marsh areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats. These island shores are eroding and fragile.

Hazard and Restrictions:

There are shallows and submerged hazards throughout the Delta.

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

Strategy: 2-920.1 Objective: Deflection booming: Protect in-channel marsh islands from oil either coming up river or down river.

Strategy: Deploy 9X9 harbor boom in a "V" shape at either end of the several in-channel islands. Boom legs should be 50 to 100 ft. each to deflect oil away from shore and into the current.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		500	feet	
Anchor	Danforth	25 lb		9		
Vessel	Boom Boat			1		
Staff	Staff to Deploy			3		

Strategy: 2-920.2 Objective: Deflection booming: Protect in-channel marsh islands from oil. Recover oil in channel north of Indian Slough.

Strategy: a) Place 600 ft of harbor boom and skimmer in west channel adjacent to the largest island at the river bend north of Indian Slough.

b) Deploy 600 ft. of harbor boom to deflect oil from across channel to the west shore.

c) Use another 600 ft to exclude oil from the largest island by "wrapping" the exposed shoreline.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1200	feet	
Anchor	Danforth	22 lb		5		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Logistics:

Directions: BY ROAD: take Hwy 4 east to Brentwood, turn left (east) on Chestnut Street, turn left on Byron Hwy, Turn right (east) on Orwood Road, proceed to river at Cruiser Haven Marina. Can also access through Discovery Bay off Hwy 4 south of Brentwood. BY BOAT: From Frank's Tract area proceed south down Old River to Railroad Cut; or from Discovery Bay follow Indian Slough to Old River and Orwood Tract.

Land Access: Access via levees.

On-Water Limitations: Boat launching facilities are available at Discovery Bay and at a small marina located near the Railroad Bridge.

Facilities, Staging Areas, Command Posts, Available Equipment: Levee roads on the Orwood Tract can be used as deployment sites.

Communications Problems: Cell reception varies.



County: Contra Costa **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.915884 -121.566809**Site Description:**

This site consists of Indian Slough from the confluence with Old River to Bixler Road, including Werner Dredger Cut to the Union Pacific Railroad. The site includes a few in-channel "islands" and areas of emergent freshwater marsh and riparian vegetation. Discovery Bay, a residential complex with numerous private docks, is located near its terminus.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

8B Sheltered solid man-made structures

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	delta smelt	FT, SE		Mar-May
Reptiles	giant garter snake	FT, ST		Jul-Oct

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	/Manager	Central Delta Water Agency	(209) 969-7755
E	/Office	Discovery Bay Marina	(925) 634-5928
O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	Contra Costa County Office of the Sheriff	(925) 468-4421
T	/Environmental Program Manager	CA Dept. of Fish & Wildlife, Bay Delta Region	(707) 576-2837
T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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

Additional Site Summary Comments:

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marsh islands and margins will be come oiled. These marsh areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

Hazard and Restrictions:

Vessels beware of submerged objects and shallows at margins.

Site Strategies:**Site Validation Level: III**

Strategy: 2-922.1 Objective: Deflection booming - Protect slough by deflecting oil coming down Old River.

Strategy: Keep oil in Old River by deploying 300-500 ft. sections of 9X9 Hboom from either the north or south point at the confluence, deflecting oil away from Indian Slough and back into the main current of Old River.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		500	feet	<i>Strategy Updated:</i>
Anchor	Danforth	25 lb		3		<i>Last Test:</i>
Vessel	Boom Boat			1		
Staff	Staff to Deploy			3		

Strategy: 2-922.2 Objective: Exclude oil from entering Island Slough from Old River. Recover oil near the confluence.

Strategy: On Old River, above the confluence of Indian Slough, use three 400ft legs of Hboom, set up a cascading configuration from east to west. Add extra anchors to middle leg of boom. Use the remaining 400ft Hboom to create a collection pocket on the south side of Indian Slough. Collect oil with the skimmer and/or vacuum truck from the levee.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1600	feet	<i>Strategy Updated: 12/11/2017</i>
Anchor	Danforth	25 lb		18		<i>Last Test: 12/11/2017</i>
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
skimmer	shoreside			1		
Staff	Staff to Deploy			8		

Strategy: 2-922.3 Objective: Exclude oil from impacting in-channel tule marsh islands.

Strategy: If oil is present in Indian Slough or coming from Discovery Bay, deploy 6X6 swamp boom to exclude and deflect oil away from the islands. Depending on currents and winds, sorbent boom may be satisfactory.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Swamp	6x6 inch		3000	feet	
Anchor	Danforth	25 lb		15		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-922.4 Objective: Exclude oil from entering Discovery Bay and channel west of Discovery Bay
Strategy: Deploy 9X9 Harbor boom across east and west channel entrances to Discovery Bay. Use 300 ft at east entrance. Use 200 ft at west entrance. Deploy 800 ft from west entrance across slough channel and tule island to "Point of Timber."

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1300	feet	
Anchor	Danforth	25 lb		8		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Logistics:

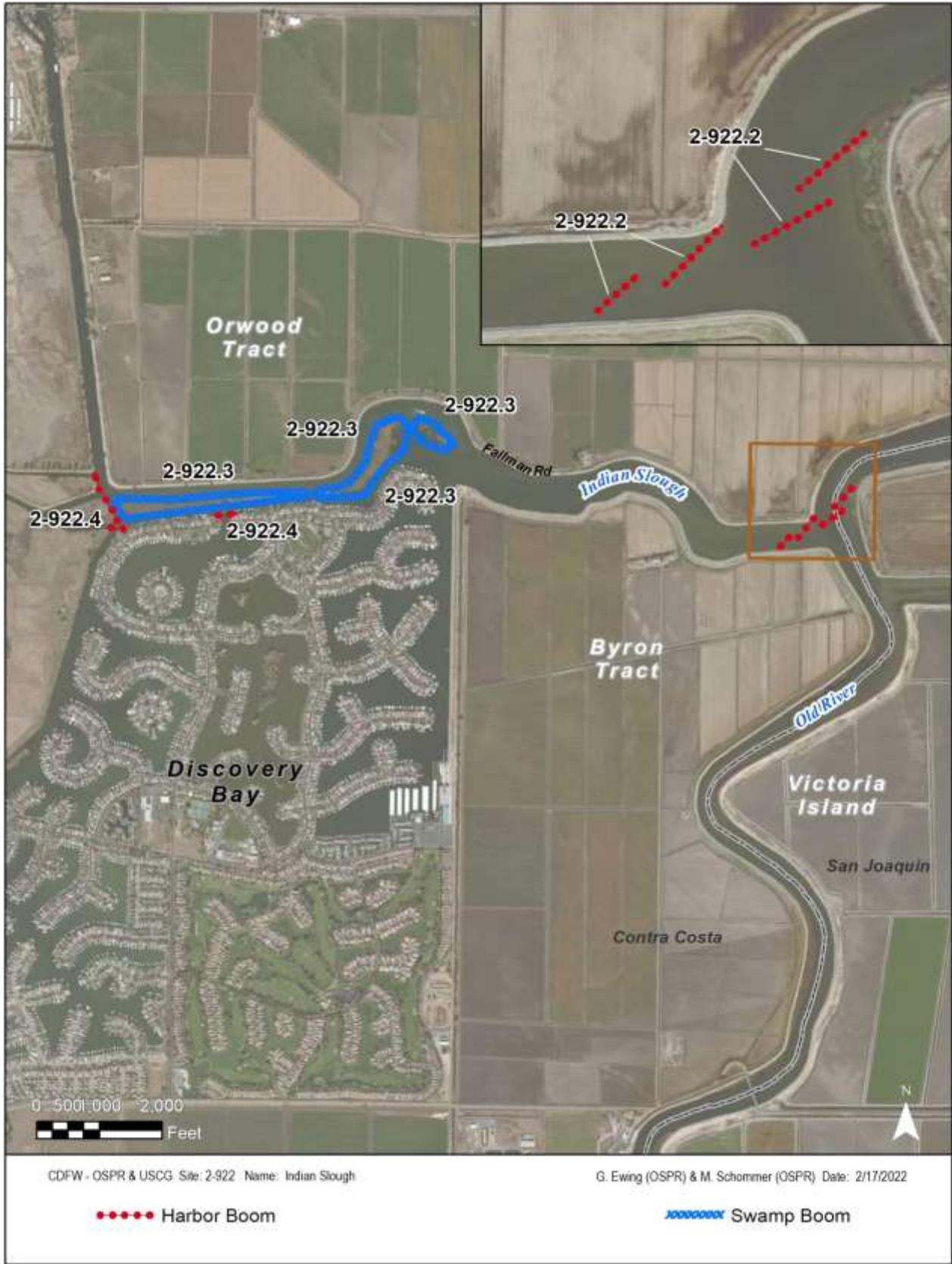
Directions: Key access to the site is from Highway 4 east to Discovery Bay Blvd. Turn right on Willow Lane Road, then right on Marina Road, and left on Channel Drive to launch ramp.

Land Access: Good access from local levees.

On-Water Limitations: Low clearance on Dredger Cut. Boat launching facilities are available at Discovery Bay.

Facilities, Staging Areas, Command Posts, Available Equipment: Facilities and deployment sites can possibly be found/located along the levees of the Orwood Tract and Byron Tract or at the Discovery Bay launch ramp.

Communications Problems: Cell reception varies.



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.913451 -121.540654**Site Description:**

This canal runs between Old River and Middle River and is situated between Woodward (to North) and Victoria (to South) Islands. This canal is a man-made waterway consisting of two parallel channels with tule island berms in the middle of the canal. Levees are rip-rapped. However, emergent freshwater marsh vegetation are present along the margins.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Fish	delta smelt	FT, SE		Mar-May
Fish	chinook salmon - Winter-run	FE, SE		
Fish	longfin smelt	ST		Nov-May
Plants	Mason's lilaepsis	SR		Apr-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct

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
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C	/Coordinator	Northwest Information Center	(707) 588-8455
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S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
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T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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

Additional Site Summary Comments:

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marsh islands and margins will be come oiled. These marsh areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

Hazard and Restrictions:

Shallow water near the middle of the canal is potentially hazardous.

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

Strategy: 2-924.1 Objective: Exclude oil from entering the canal and impacting marsh islands.

Strategy: Very little current flows into this canal. The main current flows past the canal down river. Position 9X9 Harbor Boom straight across the canal entrance at both ends (i.e., Old and Middle River) to prevent oil from entering the canal. Deploy 600 ft. at both ends, and anchor into the rip-rapped shore. (Total boom 1200 ft.)

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1200	feet	
Anchor	Danforth	22 lb		5		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Logistics:

Directions: Key access is by boat from Highway 4 up Old or Middle Rivers approximately 3.5 miles to Woodward Canal. Take Hwy 4 east to Discovery Bay or to the levee roads on Victoria Island.

Land Access: Levee roads may be impassible when wet, stay off when saturated.

On-Water Limitations: No limitations. # Boat launching facilities are available at Discovery Bay or Cruiser Haven Harbor at Old River near Railroad Cut.

Facilities, Staging Areas, Command Posts, Available Equipment: Facilities and deployment sites can be located at Discovery Bay in the west or on the levees of Upper Jones Tract to the east.

Communications Problems: Cell reception varies.



County: Contra Costa **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:****Decimal Degrees:** 37.856871 -121.5622**Site Description:**

Site is the reach of Old River from Hwy 4 to the Delta Mendota Canal intake (at the tip of Pescadero Island) and includes Old River around the east side of Coney Island and West Canal on the west side. Rip-rapped lined levees with many large tule berm island in Old River: islands include marsh, riparian and terrestrial habitats. West Canal is a straight channel of rip-rap with small patches of freshwater marsh habitat.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	longfin smelt	ST		Nov-May
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Plants	Mason's lilaeopsis	SR		Apr-Nov
Plants	Delta mudwort	SSSP		Apr
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

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T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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

Additional Site Summary Comments:

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marsh islands and margins will be come oiled. These marsh areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

Hazard and Restrictions:

Regarding boat handling, beware of shallows, snags and mud bars. Poison Oak.

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

Strategy: 2-925.1 Objective: Exclusion to collection at shore

Strategy: Depending on direction of on-coming oil; deploy Harbor boom across confluence(s) from Old River and West Canal and/or Victoria Canal to exclude oil. Deflect oil to collection areas operating from levees on surrounding islands. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

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			100	feet	
Anchor	Danforth	25 lb				
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-925.2 Objective: Exclude oil from entering Clifton Court Forebay.

Strategy: Exclude oil from water intake pumps at the south end of West Canal. Deploy 300 ft of 9X9 harbor boom straight across intake cove outside debris fence. Notify facility of oil spill and instruct to shut down pumps to minimize flow of water and oil through canal.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		300	feet	
Anchor	Danforth	25 lb		2		
Vessel	Boom Boat			1		
Staff	Staff to Deploy			3		

Strategy: 2-925.3 Objective: Oil Recovery by Shoreside skimming

Strategy: Deploy skimmers if oil accumulates in skimmable quantities. Consult with IC prior to the initiation of this strategy.

Table of Response Resources

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

Logistics:

Directions: Hwy 4 east to town of Byron. Take Byron-Bethany Road south. Left on Herdlyn Rd along levee to West Canal.

Land Access: Levees may not be passable when wet.

On-Water Limitations: Launching facilities for small boats at Dell's Boat Harbor.

Facilities, Staging Areas, Command Posts, Available Equipment: Stage from levees on surrounding islands. Dell's Boat Harbor.

Communications Problems: Cell reception varies.



County: San Joaquin ACP Division/Segment:

NOAA Chart: 18661 Sacramento & San Joaquin River Map Book: SF Bay and Delta Decimal Degrees: 37.85998 -121.5742

Site Description:

Site includes the three islands: Widdows, Eucalyptus & Kings. The flooded interiors and surrounding levees of both Widdows, Eucalyptus, and King Islands. Freshwater habitat is present on the inside and exterior side of the levees. Island interior is shallow, lots of emergent growth. Riparian forest habitat located on upper levees.

Resources at Risk:

- ESI and Habitat: 8C Sheltered riprap
- 10B Freshwater marshes
- 9B Vegetated low banks

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	chinook salmon - Winter-run	FE, SE		Oct-May
Fish	delta smelt	FT, SE		Mar-May
Fish	longfin smelt	ST		Nov-May
Plants	Mason's lilaeopsis	SR		Apr-Nov

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

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

Additional Site Summary Comments:

Concerns and Advice to Responders:

There are many important ecological resources in this reach of river and upstream sites where oil may be carried on tides and currents. The intent is to limit the free movement of oil into and through this site by exclusion and collection booming. Oil issues within the site are oiling of marsh vegetation and penetration into rip-rap. Minimize disturbance of vegetation and wildlife. Avoid trampling of marsh and riparian habitats. Avoid disturbance to nesting hawks, egrets, and herons. Do not anchor boom to trees on the levee.

Hazard and Restrictions:

Vessels beware of shallow water and submerged tree snags.

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

Strategy: 2-927.1 Objective: Exclude oil from entering Widdows Island.

Strategy: At Widdows Island there is a levee breach along Old River - deploy 6X6 swamp boom (800 ft) across breach and parallel with river current. Back boom with sorbent boom if necessary.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Swamp	6x6 inch		800	feet	
Boom	Sorbent			800	feet	
Anchor	Danforth	22 lb		4		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-927.2 Objective: Prevent oil from reaching both islands.

Strategy: Deploy 2 layers of 600 ft of harbor boom across Old River Channel up or down current from islands.

a) Deflect at angle to Byron Tract or Victoria Island levees. Recover accumulated oil against levee. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect accumulated oil. Contact IC if oil accumulates in skimmable quantities.

b) Deploy deflection boom across confluence with Italian Slough (300 ft.)

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			100	feet	
Anchor	Danforth	25 lb		7		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-927.3 Objective: Prevent oil from entering Eucalyptus Island

Strategy: a) At Eucalyptus Island, the levee breeches are primarily along the south and SE levees. Breeches are less than 50 ft wide. Block with 6X6 swamp boom as needed. Back boom with sorbent boom if necessary.

b) Block entrance channels (4) around Eucalyptus and King Islands to Old River with 6X6 swamp boom (300 ft)

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Swamp	6x6 inch		550	feet	
Boom	Sorbent			250	feet	
Anchor	Danforth	22 lb		4		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-927.4 Objective: Oil Recovery by Shoreside skimming

Strategy: Deploy skimmer if oil accumulates in skimmable quantities. Consult with IC prior to the initiation of this strategy.

Table of Response Resources

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

Logistics:

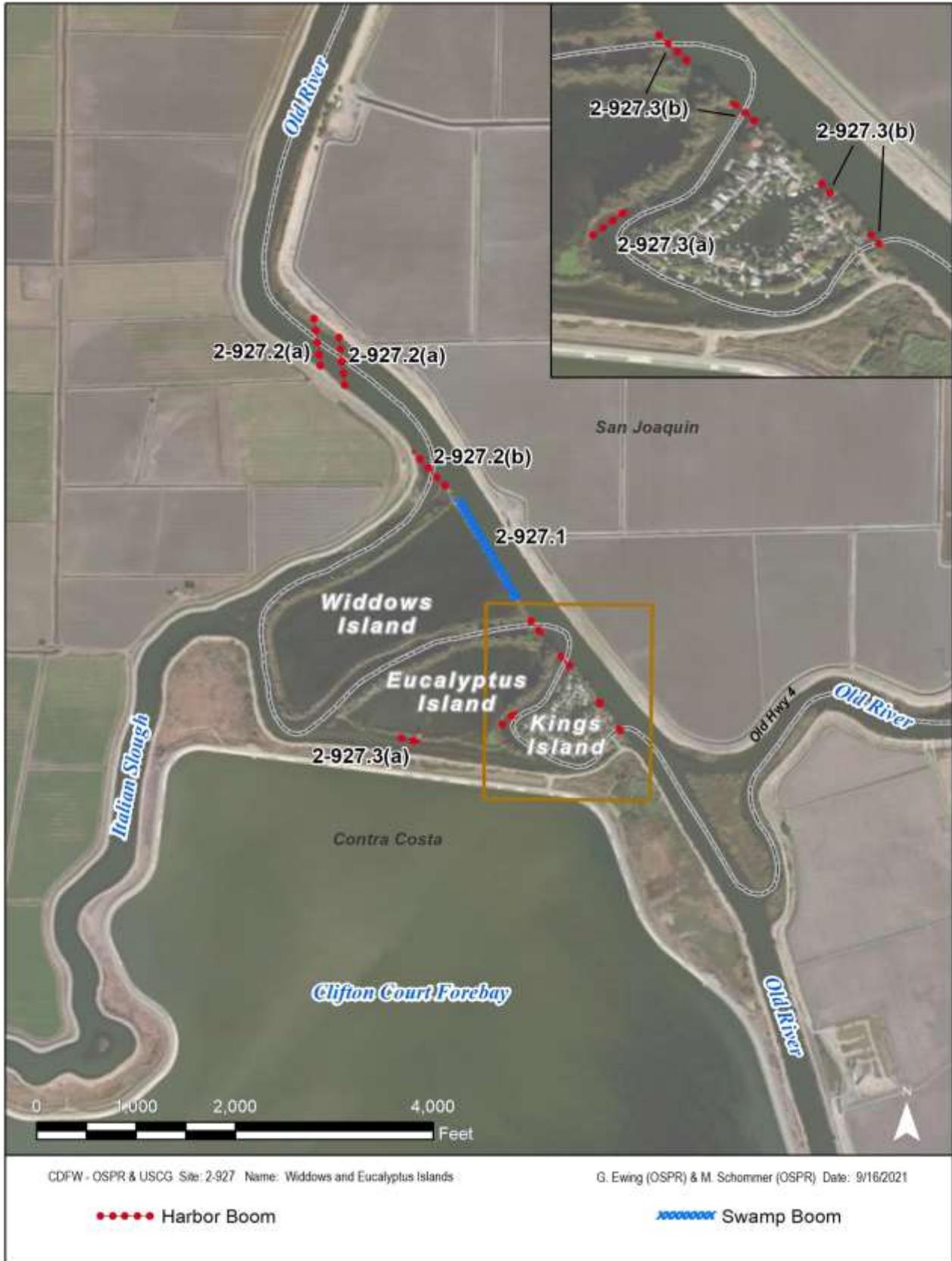
Directions: Key access is from Highway 4 east to Byron. Take Byron Highway south, turn left (east) on Clifton Court Rd., follow to north side of forebay.

Land Access: No restrictions to nearby levees.

On-Water Limitations: Margin Shallows; Channel between islands impassable by boat. Facilities for small boats only are available at Del's Boat harbor

Facilities, Staging Areas, Command Posts, Available Equipment: Stage from levees around Clifton Court Forebay.

Communications Problems: Cell reception varies.



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.874119 -121.523509**Site Description:**

A straight line canal located between Victoria and Union Islands, this connects Old River on the west to Middle River on the east, approx 4 linear, river miles. Sensitive resources in the site include tule marshes and berm island down the middle. Bounded on both sides by rip-rapped levees.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	chinook salmon - California coastal	FT		Oct-May
Fish	longfin smelt	ST		Nov-May
Fish	delta smelt	FT, SE		Mar-May
Plants	Delta tule pea	SSSP		May-Jul
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	Western pond turtle	SSC		
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

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E	/Manager	Central Delta Water Agency	(209) 969-7755
O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
T	/Environmental Program Manager	CA Dept. of Fish & Wildlife, Bay Delta Region	(707) 576-2837
T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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

Additional Site Summary Comments:

Concerns and Advice to Responders:

There are many important ecological resources in this reach of river and upstream sites where oil may be carried on tides and currents. The intent is to limit the free movement of oil into and through this site by exclusion and collection booming. Oil issues within the site are oiling of marsh vegetation and penetration into riprap. Minimize disturbance of vegetation and wildlife. Do not anchor boom to trees on the levee.

Hazard and Restrictions:

Vessels be aware of shallow water near middle on canal. Aircraft beware of powerlines at west end.

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

Strategy: 2-929.1 Objective: West end of canal: Keep oil out of marsh areas located in middle of canal.

Strategy: For oil coming from northern reaches of Old River, deploy strategy as described for Widdows and Eucalyptus Islands

(2-927-A) and Old River: Coney Island (2-925-A). Oil may be deflected to levees of Victoria Canal. For resources necessary see the above mentioned strategy.

Table of Response Resources

Last Page Update

Strategy: 2-929.2 Objective: Exclude oil and stop spread when oil threatens from east end of canal.

Strategy: For oil coming from Highway 4 or Middle River, deploy 9X9 harbor boom to deflect oil to either levee in J-hook configuration. Angle boom to fit the best current and wind conditions and shoreside recovery needs. Recover oil with 50ft Oil Snare (OS), 100ft sorbent boom from levees of Union Island or Victoria Island. Contact IC if oil accumulates in skimmable quantities.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		800	feet	
Boom	Oil Snare (pom-pom)			50	feet	
Boom	Sorbent			100	feet	
Anchor	Danforth	22 lb		5		
Vessel	Boom Boat			1		
Staff	Staff to Deploy			3		

Strategy: 2-929.3 Objective: Exclude oil from entering Clifton Court Forebay.

Strategy: Notify facility of oil spill and instruct to shut down pumps to stop or decrease the flow of water and oil through the canal.

Table of Response Resources

Last Page Update

Strategy: 2-929.4 Objective: Oil Recovery by Shoreside skimming

Strategy: Recover oil with skimmers from levees of Union Island or Victoria Island if oil accumulates in skimmable quantities. Consult with IC prior to the initiation of this strategy.

Table of Response Resources

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

Logistics:

Directions: Access is from Highway 4 east to Union Point at confluence with Middle River and Victoria Canal.

Land Access: Access from levees when dry, avoid when saturated.

On-Water Limitations: Larger boats launch from Discovery Bay. Launch skiffs from levees.

Facilities, Staging Areas, Command Posts, Available Equipment: Staging and boat mooring at Union Point.

Communications Problems: Cell reception varies.



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** Bay and River A **Decimal Degrees:** 37.816842 -121.556639**Site Description:**

This reach extends from Old River and side channels along the southern margin of Pescadero Island to Salmon Slough. This reach contains tule berm islands and freshwater marsh, riparian margins with some upland habitat. Water depths range approximately two to three meters in depth.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

8B Sheltered solid man-made structures

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Fish	delta smelt	FT, SE		Mar-May
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	Western pond turtle	SSC		
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

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T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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Additional Site Summary Comments:

Hérons and egrets are known to nest in this area.

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marsh islands and margins will be come oiled. These freshwater, tule marsh areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

Hazard and Restrictions:

Beware of shallow sloughs and submerged objects, and potentially water hyacinth choked water ways.

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

Strategy: 2-930.1 Objective: Divert and collect oil at the river confluence at Hammer Island.

Strategy: Deploy 9X9 harbor boom across channels around Hammer Island to exclude oil from adjoining sloughs and to facilitate collection. Boom off/exclude oil from the two small channels west of Hammer Island. Set deflection boom in Old River channel at Hammer Island. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		500	feet	
Boom	Oil Snare (pom-pom)			50	feet	
Boom	Sorbent			100	feet	
Anchor	Danforth	25 lb		5		
Vessel	Boom Boat			1		
Staff	Staff to Deploy			3		

Strategy: 2-930.2 Objective: Oil Recovery by Shoreside skimming

Strategy: Deploy skimmers across channels around Hammer Island to collect oil if it accumulates in skimmable quantities. Consult IC prior to the 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			2		

Logistics:

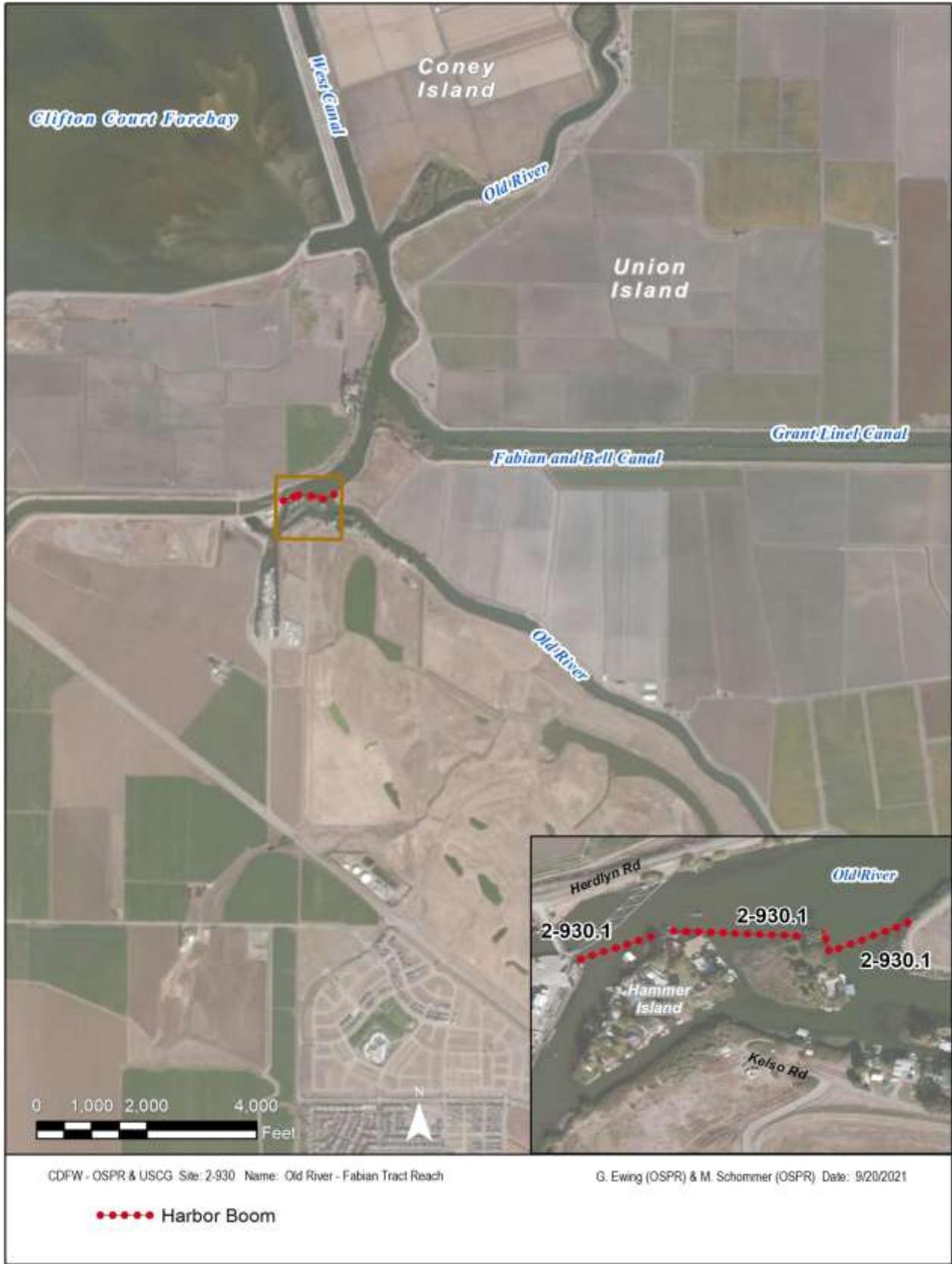
Directions: Key access to site is from highway 4 east to the town of Byron. Take Byron Bethany Road south, and turn left on Lindeman Road to the boat ramp at the river confluence with the Delta Mendota Canal.

Land Access: Access from levees, contact DWR or RD for gate access.

On-Water Limitations: Boat launching facilities for small boats (<20 ft.) are available at Del's Boat Harbor.

Facilities, Staging Areas, Command Posts, Available Equipment: Facilities and deployment sites can be found/located at Del's Boat Harbor.

Communications Problems: Cell reception varies.



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.82073 -121.550156**Site Description:**

Located at the south side of Union Island, this site includes "Grant Line" and "Fabian and Bell" Canals, approx 7 linear miles. They run parallel from the confluence with Old River on the west end to Salmon Slough on the east end. Tule berm islands and marsh-riparian areas in and along levees bordering Grant Line Canal, Fabian and Bell Canal and Salmon Slough.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Fish	delta smelt	FT, SE		Mar-May
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

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O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
T	/Environmental Program Manager	CA Dept. of Fish & Wildlife, Bay Delta Region	(707) 576-2837
T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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

Additional Site Summary Comments:

Concerns and Advice to Responders:

There are many important ecological resources in this reach of river and upstream sites where oil may be carried on tides and currents. The intent is to limit the free movement of oil into and through this site by exclusion and collection booming. Oil issues within the site are oiling of marsh vegetation and penetration into riprap. Minimize disturbance of vegetation and wildlife. Do not anchor boom to trees on the levee.

Hazard and Restrictions:

Slips, trips and falls on riprap and steep levees. Regarding boat handling, beware of shallows, snags and mud bars. Beware of Poison Oak.

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

Strategy: 2-932.1 Objective: Exclude oil moving up Old River from entering Grant Line Canal.

Strategy: a) Deploy 9X9 500 ft harbor boom in J-hook across Old River above confluence with Grant Line Canal. Begin at gauging station on west shore, deflecting to the east shore at Union Island. Collect oil off of Union Island levee in slow water on east side of channel. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

B) If necessary, deploy similar boom configuration at mouth of Grant Line and Fabian-Bell Canals. Set collection J-hook in slow water on south side of channel.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1000	feet	
Boom	Oil Snare (pom-pom)			50	feet	
Boom	Sorbent			100	feet	
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-932.2 Objective: Oil Recovery by Shoreside skimming

Strategy: Deploy skimmers when oil accumulations in skimmable quantities. Consult IC prior to the initiation of this strategy.

Table of Response Resources

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

Logistics:

Directions: Access is from Highway 4 east to the town of Byron. Take Bryon Highway south. Turn left on Herdlyn Road. Proceed to confluence of Old River and grant Line Canal. Or: left on Lindeman Road to Del's Boat Harbor.

Land Access: Access from levees, contact DWR or RD for gate access.

On-Water Limitations: Shoals and snags possible. Launching facilities for small boats are available at Del's Harbor. Additional facilities are available at Tracy Oasis Marina

Facilities, Staging Areas, Command Posts, Available Equipment: Stage at Del's Boat Harbor and levees, or at Tracy Oasis Marina.

Communications Problems: Cell reception varies.



2-934-B Site Summary - Tom Paine Slough**2-934-B****County:** San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.799803 -121.42358**Site Description:**

Upper Tom Paine Slough, well-developed oak, riparian along steep, rip-rapped banks; oak Savannah remnants in places. Approx 2 mile slough starting just North of Tracy aka "Sugar Cut" and terminates into Old River.

Resources at Risk:

ESI and Habitat: 6B Riprap
 6B Riprap
 9B Vegetated low banks
 10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Birds	tri-colored blackbirds	FP, SSC		Mar-Apr
Fish	delta smelt	FT, SE		Mar-May
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

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E	/Manager	Central Delta Water Agency	(209) 969-7755
O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
T	/Environmental Program Manager	CA Dept. of Fish & Wildlife, Bay Delta Region	(707) 576-2837
T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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

Additional Site Summary Comments:

Archaeological site.

Concerns and Advice to Responders:

Penetration into marsh areas, woody cover, riprap, and animal and invertebrate burrows in levees, islands and uplands. There are many important ecological resources in this reach of river and upstream sites where oil may be carried on tides and currents. The intent is to limit the free movement of oil into and through this site by exclusion and collection booming. Oil issues within the site are oiling of marshy vegetation and penetration into riprap. Minimize disturbance of vegetation and creatures. Do not anchor boom to trees on the levee.

Hazard and Restrictions:

Slips, trips and falls on riprap and steep levees. Regarding boat handling, beware of shallows, snags and mud bars. Beware of Poison Oak.

Site Strategies:

Site Validation Level: 0

Strategy: 2-934.1 Objective:

Strategy:

Table of Response Resources

Last Page Update

Logistics:

Directions: Highway 205 to Tracy Blvd/Central Tracy. Go north on Tracy Blvd. For approximately 5 miles to Grimes Rd. Go left on grimes Rd. for 1/2 mile to Tracy Oasis Marina. Main boundary road in J4 (Byron Highway) which can be reached also from Highway 4.

Land Access:

On-Water Limitations:

Facilities, Staging Areas, Command Posts, Available Equipment:

Communications Problems:



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** Sacramento-San Joaquin **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.800234 -121.370093**Site Description:**

Paradise Cut starts near the junction of Highways 205 & 5 and runs approx 7 river miles NW into Old River. The western end has mature oak riparian woodland. Cottonwood riparian is the habitat on the middle portion of the reach. To the east, the levees are lined with riparian shrub-brush and flanked with walnut orchards.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	delta smelt	FT, SE		Mar-May
Mammals	riparian brush rabbit	FE, SE		Jan-May
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

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Additional Site Summary Comments:

Concerns and Advice to Responders:

Minimize oil spread into, out of, and within this site. This rich habitat would be difficult to clean up. Minimize disturbance of wildlife and vegetation so far as possible.

Hazard and Restrictions:

Slips, trips and falls on riprap and steep levees. Regarding boat handling, beware of shallows, snags and mud bars. Beware of Poison Oak.

Site Strategies:

Site Validation Level: 0

Strategy: 2-935.1 Objective:

Strategy: No strategy or response information has been developed.

Table of Response Resources

Last Page Update

Logistics:

Directions: By vehicle, you may reach this site from Tracy by traveling east on Grantline Rd to Paradise Rd to the levee of Paradise Cut.

Land Access:

On-Water Limitations:

Facilities, Staging Areas, Command Posts, Available Equipment:

Communications Problems:



2-940-A Site Summary - Old River: Stewart Tract Reach**2-940-A****County:** San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.819376 -121.361699**Site Description:**

Lowest reach of Old River from Salmon Slough to the San Joaquin River. Riparian growth and emergent vegetation in tule/freshwater marsh margins.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Birds	waterfowl			
Fish	delta smelt	FT, SE		Mar-May
Mammals	riparian brush rabbit	FE, SE		Jan-May
Reptiles	giant garter snake	FT, ST		Jul-Oct

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Additional Site Summary Comments:

Concerns and Advice to Responders:

There are many important ecological resources in this reach of river and upstream sites where oil may be carried on tides and currents. The intent is to limit the free movement of oil into and through this site by exclusion and collection booming. Oil issues within the site are oiling of marshy vegetation and penetration into riprap. Minimize disturbance of vegetation and creatures. Do not tie boom to trees on the levee.

Hazard and Restrictions:

Slips, trips and falls on riprap and steep levees. Regarding boat handling, beware of shallows, snags and mud bars. Beware of Poison Oak.

Site Strategies:

Site Validation Level: 0

Strategy: 2-940.1 Objective:

Strategy:

Table of Response Resources

Last Page Update

Logistics:

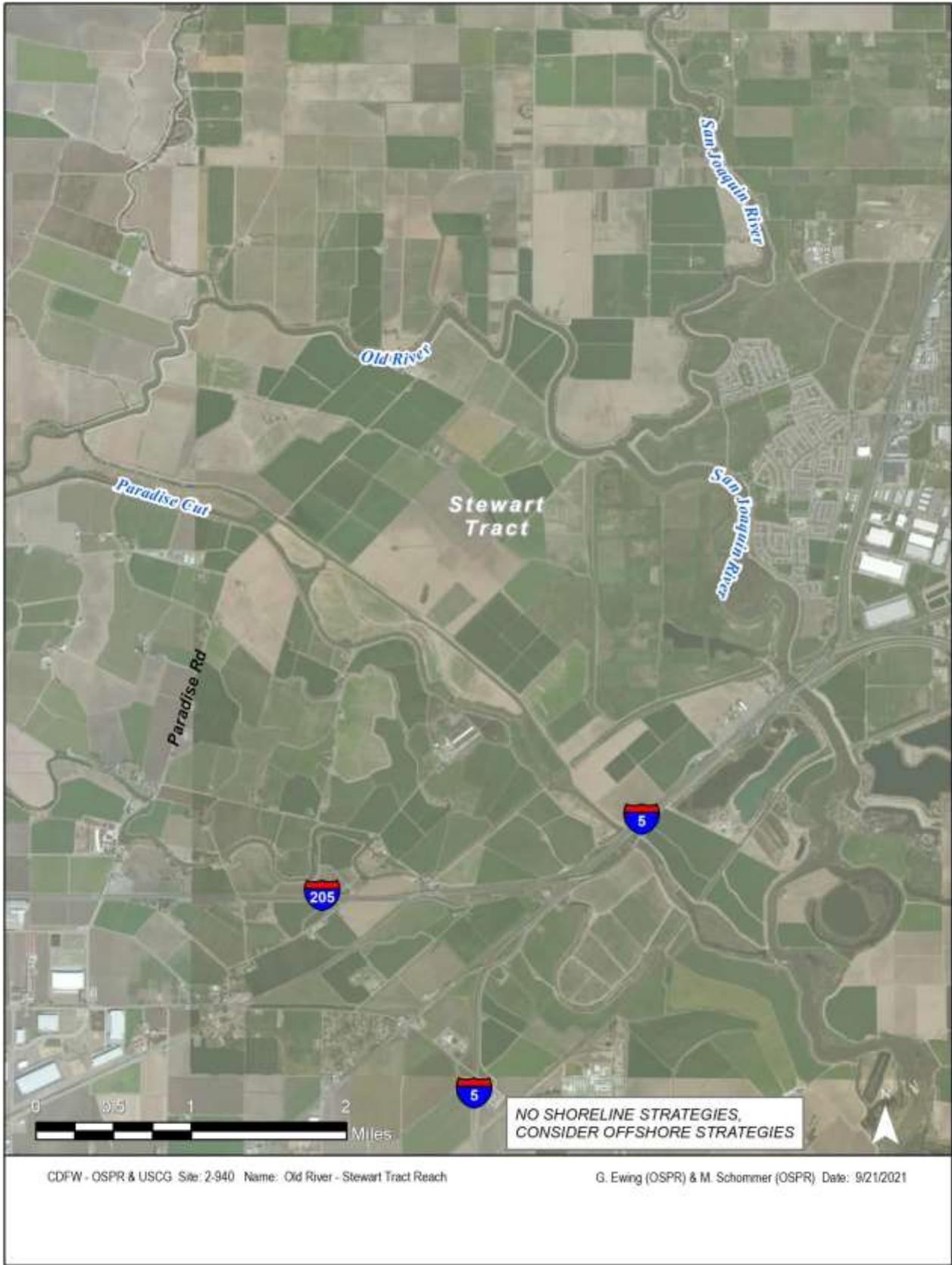
Directions:

Land Access:

On-Water Limitations:

Facilities, Staging Areas, Command Posts, Available Equipment:

Communications Problems:



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 38.040977 -121.52745**Site Description:**

Site extends approx 4 river miles from Venice Tips Complex south to Mildred Island. Its westerly margin is Mandeville Island. The east side is Medford and McDonald Islands. This river reach is wide and deep with many sizable channel and berm islands and rip-rapped levees. The berm and channel islands are vegetated with emergent marsh. This is an important delta circulation and cross flow channel. Both waves and currents can be strong here.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Birds	California black rail	FP, ST		Mar-Aug
Fish	delta smelt	FT, SE		Mar-May
Fish	longfin smelt	ST		Nov-May
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct

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C	/Coordinator	Northwest Information Center	(707) 588-8455
E	/Manager	Central Delta Water Agency	(209) 969-7755
E	/Office	Mandeville Island Reclamation District	(209) 946-0268
E	/Dispatch, 24-hr	Medford Island Reclamation District	(209) 465-5883
O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
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Additional Site Summary Comments:

Several sensitive plant species reside here.

Concerns and Advice to Responders:

There are many important ecological resources and rare species in this reach of river, and this is also a significant route for spill spread. The intent is to limit the free movement of oil into and through this site by exclusion and collection booming. Minimize disturbance of vegetation and creatures. Do not anchor boom to trees on the levee. Oil issues here are oiling marsh sediments and penetration into riprap.

Hazard and Restrictions:

Aerial traffic beware of power wires. Slips, trips and falls are a hazard on riprap. Beware of Poison Oak.

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

Strategy: 2-950.1 Objective: Exclusion/Collection at mouth of Middle River. Wind wash and strong currents can be a problem.

Strategy: This site can be used to deflect to collection for oil moving both north and south.

a) For oil moving upstream from detection of Ship Channel, set an exclusion-diversion boom across the mouth at a diagonal to land oil on the Medford Isl levee. Anchor one end near the Mandeville levee just north of the first berm island and set boom diagonally from levee to berm island to berm island to Medford levee. Leave a trailing boom length to maintain seal during tidal fluctuations. Back with sorbent boom as necessary and set up collection at Medford levee.

b) For oil threats from the south delta, set the exclusion-diversion across the south tips of the channel islands at a diagonal to land oil on the Mandeville Isl levee. Anchor one end near the Mandeville levee opposite of the middle channel island and set boom diagonally from levee to channel island then to the next channel island to Medford levee. Leave a trailing boom length to maintain seal during tidal fluctuations. Back with sorbent boom as necessary and set up collection at Mandeville levee.

Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1700	feet	
Boom	Oil Snare (pom-pom)			50	feet	
Boom	Sorbent			2100	feet	
Anchor	Danforth	25 lb		7		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-950.2 Objective: Exclude/Collect oil at junction with Latham Slough / Mildred Island open water.

Strategy: This location may be used to deal with oil threats from upstream or downstream. Set 1500' of 9X9 harbor boom diagonally across slough just north of Mildred Island/Latham Slough. Anchor one end at the cable ferry landing on McDonald Isl and the other near the Mandeville levee. Back with sorbent.

A) For oil threats from the south (Mildred/Latham Slough) set up collection on the Mandeville shore;
b) for threats from the north (ship channel) collect oil at the McDonald shore.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1500	feet	
Boom	Sorbent			1500	feet	
Anchor	Danforth	25 lb		5		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-950.3 Objective: Oil Recovery by Shoreside skimming

Strategy: Deploy skimmers when oil accumulates in skimmable quantities. Consult IC prior to the 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:

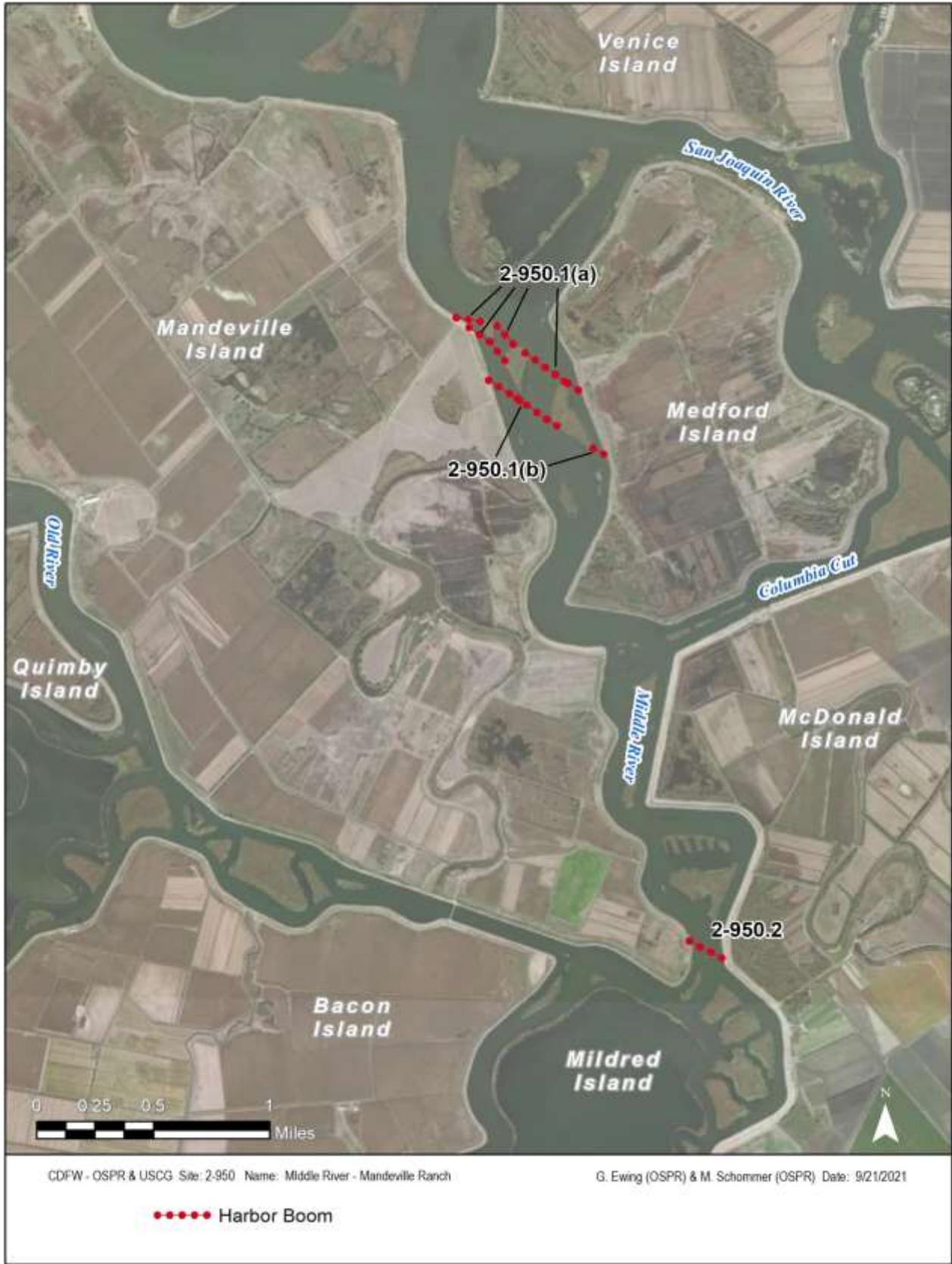
Directions: Key access to site is by boat, from Stockton Deep Water Channel at R4 and R6. Vehicle access is very restricted: private levee roads via convoluted routes: Hwy 4 to Inland Dr to McDonald Rd to private bridge or ferry McDonald Island or Hwy 4 to Bacon Island Rd to Bacon Isle to private bridge to Mandeville Island.

Land Access: Access via levees when dry, avoid when saturated.

On-Water Limitations: Deep draft, except near shore. Nearest boat launch and marine service is 8-mile road. Additional marine facilities are at Bethel Island or at the mouth of the Mokelumne.

Facilities, Staging Areas, Command Posts, Available Equipment: Good deployment sites and facilities are at marinas above: rental boats, fuel, restaurants, water, and some camping and lodging. Consider the 8-mile road area as an area deployment site. Lower Jones Tract levees are another deployment area.

Communications Problems: Cell reception varies.



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 38.025118 -121.50812**Site Description:**

Columbia Cut extends 1.5 miles connecting the San Joaquin Channel (Head Reach) with Middle River. It is bordered by Medford Island to the north and McDonald Island to the south. Columbia Cut has a Berm Island dividing most of its length to the Middle River confluence and a large channel island at its confluence with the San Joaquin. These islands have high ecological value as freshwater marsh and riparian habitat. Levees are rip-rapped with emergent vegetation pockets. Currents can be strong here. Draft is good throughout its length.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Birds	California black rail	FP, ST		Mar-Aug
Fish	longfin smelt	ST		Nov-May
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Fish	delta smelt	FT, SE		Mar-May
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct

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	/Manager	Central Delta Water Agency	(209) 969-7755
E	/Engineer	Lower Jones Tract Reclamation District	(209) 969-7755
E	/Office	Mandeville Island Reclamation District	(209) 946-0268
E	/Dispatch, 24-hr	Medford Island Reclamation District	(209) 465-5883
O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
T	/Environmental Program Manager	CA Dept. of Fish & Wildlife, Bay Delta Region	(707) 576-2837
T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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Additional Site Summary Comments:

Several sensitive plant species occur here.

Concerns and Advice to Responders:

Oil issues here are oiling of marshy vegetation and penetration into riprap. This is also a significant route for spill spread. There are many important ecological resources in this reach of river and upstream sites where oil may be carried on tides and currents. The intent is to limit the free movement of oil into and through this site by exclusion and collection booming. Oil issues within the site are oiling of marsh vegetation and penetration into riprap. Minimize disturbance of vegetation and creatures. Do not anchor boom to trees on the levee.

Hazard and Restrictions:

Aerial traffic beware of power wires. Slips, trips and falls. Deep water except at margins. Beware of Posion Oak.

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

Strategy: 2-952.1 Objective: Exclude oil from entering or leaving Columbia Cut at the mouth (at San Joaquin R).

Strategy: Set exclusion-diversion booms across each mouth at Head Reach. Anchor one end near the Medford levee and anchor other end along Head Reach shore of unnamed tule island. Do the same on south side to close channel on McDonald Island side. Leave a trailing boom length to maintain seal during tidal vacillations. Back with sorbent boom as necessary. Set protective sorbents between hard boom if oil threatens from Head Reach. Wind wash and strong currents can be a problem, requiring back-up strategy (see .3).

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Swamp	6x6 inch		1000	feet	
Boom	Sorbent			2000	feet	
Anchor	Danforth	25 lb		4		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-952.2 Objective: Exclusion booming at junction with Middle River.

Strategy: Set 900' of 9x9+ harbor boom across mouth of Columbia Cut. Anchor one end near McDonald levee and the other near the Medford levee. Back with sorbent.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		900	feet	
Boom	Sorbent			900	feet	
Anchor	Danforth	22 lb		5		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-952.3 Objective: Exclusion/Collection backup strategy for Head Reach end: exclude and divert for collection, under prevailing wind and current pattern.

Strategy: Set 1500' 9x9+ harbor boom at a diagonal across Columbia Cut just south of unnamed tule island. Angle to promote collection at appropriate shore under prevailing wind conditions.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		1500	feet	
Anchor	Danforth	25 lb		5		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Logistics:

Directions: Key access to site is by boat, from Stockton Deep Water Channel at R12 or R16 through Head Reach. Vehicle access is very restricted: private levee roads via convoluted routes: Hwy 4 to Inland Dr to McDonald Rd to private bridge or ferry to McDonald Island or I-5 to 8-mile road to private ferry to Medford Island.

Land Access: Access from levees when dry, avoid when saturated.

On-Water Limitations: Deep draft, except near shore. Nearest boat launch and marine service is 8-mile road. Additional marine facilities are at Bethel Island or at the mouth of the Mokelumne.

Facilities, Staging Areas, Command Posts, Available Equipment: Good deployment sites and facilities are at marinas above: rental boats, fuel, restaurants, water, and some camping and lodging. Consider the 8-mile road area as an area deployment site. Lower Jones Tract levees are another deployment area.

Communications Problems: Cell reception varies.



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.986292 -121.517513**Site Description:**

This site includes Mildred Island and adjacent Latham Slough from Empire Cut to Connection Slough. The flooded Mildred Island is surrounded by severely deteriorating levees which has dense freshwater marsh vegetation. Latham Slough has several in-channel marsh islands and berms.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	California black rail	FP, ST		Mar-Aug
Birds	Swainson's hawk	FP, ST		Mar-Sep
Birds	migratory waterfowl	FP		
Fish	delta smelt	FT, SE		Mar-May
Fish	longfin smelt	ST		Nov-May
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

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E	/Engineer	Lower Jones Tract Reclamation District	(209) 969-7755
E	/Office	Mandeville Island Reclamation District	(209) 946-0268
E	/Office	McDonald Island Reclamation District	(209) 956-9940
O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
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T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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

Additional Site Summary Comments:

Several sensitive plant species occur in the area.

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marsh islands will be come oiled. These marsh areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and into sediments.

Hazard and Restrictions:

Shallow water. Numerous tree snags inside flooded Mildred Island.

Site Strategies:**Site Validation Level: 0**

Strategy: 2-960.1 Objective: Exclude by executing adjacent strategies. No specific strategy for this site. See Old River Quimby Island (2-910); Middle River: Bacon Island Reach (2-965-A); Middle River: Mandeville Reach (2-950-A), and Turner/Empire Cuts (2-963-A).

Strategy: For oil coming from outside this site, deploy appropriate strategies from among the following to exclude oil: Old River Quimby Island (2-910); Middle River: Bacon Island Reach (2-965-A); Middle River: Mandeville Reach (2-950-A), and Turner/Empire Cuts (2-963-A).

Table of Response Resources

Last Page Update**Logistics:**

Directions: Highway 4 east past Middle River to Bacon Island Road. Turn left on Bacon Island Road out to Middle River Follow along Lower Jones Tract levee.

Land Access: Good access from levees when dry, avoid when saturated.

On-Water Limitations: Marina services at Tiki Lagoon Resort Marina and Turner Cut Resort on Turner Cut are closest.

Facilities, Staging Areas, Command Posts, Available Equipment: Staging at marinas or along Bacon Island Road. Tiki Lagoon Resort Marina and Turner Cut Resort on Turner Cut are closest.

Communications Problems: Cell reception varies.



CDFW - OSPR & USCG Site: 2-960 Name: Mildred Island / Latham Slough

G. Ewing (OSPR) & M. Schommer (OSPR) Date: 9/24/2021

County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.97131 -121.476749**Site Description:**

The site includes five miles of channel bordering south and east side of McDonald Island, from the Stockton Channel (R24) to Latham Slough (Mildred Island). Whiskey Slough forks off to southeast marking Turner from Empire Cuts. This is a deep water slough with rip-rapped levees with pockets of emergent freshwater marsh habitat. Berm and channel islands throughout its length are freshwater marsh fringe and have high ecological value. Currents can be strong in this slough.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Fish	delta smelt	FT, SE		Mar-May
Fish	chinook salmon - Winter-run	FE, SE		Oct-May
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Fish	longfin smelt	ST		Nov-May
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

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E	/Engineer	Lower Jones Tract Reclamation District	(209) 969-7755
E	/Office	McDonald Island Reclamation District	(209) 956-9940
E	/Engineer	Terminus Tract Reclamation District	(209) 649-4555
E	/Engineer	Terminus Tract Reclamation District	(209) 465-5883
O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
T	/Environmental Program Manager	CA Dept. of Fish & Wildlife, Bay Delta Region	(707) 576-2837
T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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

Additional Site Summary Comments:

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported through this site to other parts of the delta; and second, that marsh islands and margins will be come oiled. These marsh areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marsh sediments.

Hazard and Restrictions:

Aerial high wire hazards. Underwater cables and pipelines. Beware of Poison Oak.

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

Strategy: 2-963.1 Objective: Exclude/contain oil At San Joaquin River (at Acker Island): Stop oil from entering or leaving slough mouth.

Strategy: For oil threats on the San Joaquin, this deployment should be done at the same time as strategy 2-040 San Joaquin River - Hog Island Cut Complex.

a) Set boom across slough mouth (400' Hboom). Anchor one boom end upstream near riprap bank of Roberts Isl. At R24. Anchor downstream boom end at the marsh beach of Acker Island, with substantial overlapping of Acker tip. Back with sorbent, leaving a trailing boom length to maintain seal during tidal vacillations.

B) Anchor exclusion boom across Turner Cut mouth from riprap levee of McDonald Isl easterly to Lost Isl Resort (200' Hboom.) Back with sorbent boom. Leave trailing boom ends to keep a tidal seal.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		600	feet	
Boom	Sorbent			600	feet	
Anchor	Danforth	25 lb		4		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			3		

Strategy: 2-963.2 Objective: Exclusion/contain at south end - junction with Latham Slough at Mildred Island. Stop oil from entering or leaving slough mouth.

Strategy: Deploy 1220 ft of 9X9 Hboom across west end of Empire Cut on a diagonal favorable to divert oil to south shore. Anchor boom near riprap levees on each side leaving trailing ends to maintain tidal seal. Back with second layer of boom or sorbent boom. Strong current here. Collect oil at south bank (Lower Jones Tract) if oil is concentrated sufficiently for collection. Use 50ft of oil snare (OS), 100ft of sorbent boom to collect oil that may accumulate. If oil accumulates in skimmable quantities contact IC.

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)			50	feet	
Boom	Sorbent			1320	feet	
Anchor	Danforth	25 lb		7		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-963.3 Objective: Oil Recovery by Shoreside skimming

Strategy: Deploy skimmer if oil accumulates in skimmable quantities. Consult IC prior to the initiation of this strategy.

Table of Response Resources

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

Logistics:

Directions: Levee roads border this site on south and east are on Roberts Island and Lower Jones Tract and are accessible from Hwy 4 (Lower Jones road and McDonald Rd). North/west levee roads of McDonald Isl. are private. By water, site begins at Ship Channel light R24.

Land Access: Southeast levee roads paved and provide access.

On-Water Limitations: Nearby marinas include: Tiki Lagun Resort, Turner Cut Resort, Whiskey Slough Resort, and others.

Facilities, Staging Areas, Command Posts, Available Equipment: Roberts Island at Turner Cut/Stockton Channel junction is good major deployment site for this area. Adjacent levees and marinas are good for boom deployment and other response.

Communications Problems: Cell reception varies.



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.963255 -121.468195**Site Description:**

This dead-end slough extends from its mouth at junction of Turner Cut and Empire Cut about 3 miles to its terminus. A fairly narrow, shallow water slough with margins mostly rip-rapped but with pockets of emergent freshwater marsh vegetation. There are multiple channel islands. Snags and shallows are common in this low energy slough.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	waterfowl			
Fish	delta smelt	FT, SE		Mar-May
Fish	chinook salmon - Winter-run	FE, SE		Oct-May
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

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C	/Coordinator	Northwest Information Center	(707) 588-8455
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E	/Engineer	Lower Jones Tract Reclamation District	(209) 969-7755
E	/Office	McDonald Island Reclamation District	(209) 956-9940
E	/Engineer	Terminus Tract Reclamation District	(209) 649-4555
E	/Engineer	Terminus Tract Reclamation District	(209) 465-5883
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S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
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C – Cultural, Historic, Archaeological; E – Entry/Owner/Access; O – Other; S – Safety; T – Trustee; X – Exclusion or Security

Additional Site Summary Comments:

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marsh islands and margins will be come oiled. These marsh areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marsh sediments.

Hazard and Restrictions:

Aerial hazard of high wires. Slips, trips and falls on riprap and steep levees. Regarding boat handling, beware of shallows, snags and mud bars. Beware of Poison Oak.

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

Strategy: 2-964.1 Objective: Exclude oil at mouth on Turner Cut

Strategy: Set boom across slough mouth. Anchor one boom end near Roberts Island riprap levee. Anchor other boom end diagonally up-slough on Lower Jones Tract levee, leaving a trailing boom length to maintain seal during tidal vacillations. If collection is opportune, shoreside skimmer at appropriate side for collection/removal. Back with sorbent.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Swamp	6x6 inch		400	feet	
Boom	Sorbent			300	feet	
Anchor	Danforth	25 lb		4		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			3		

Logistics:

Directions: Key access to site is from southerly side via I-5 to Hwy 4 to Roberts Island Road to Upper Jones Tract Road. Private levee roads also border north side. Water access is from Turner or Empire Cuts from Ship Channel.

Land Access: Levee roads good when dry, avoid when saturated.

On-Water Limitations: Shallow waterway, watch for snags. Marinas nearby have wide range of facilities including launch, rental boats, fuel: Whiskey Slough Resort, Tiki Lagun Resort & Turner Cut Resort.

Facilities, Staging Areas, Command Posts, Available Equipment: Local marinas are possible area deployment sites and have most facilities including restaurants, water, toilets and some camping. If roads are passable, deploy from adjacent levees. Otherwise transport material by skiff.

Communications Problems: Cell reception varies.



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.943511 -121.53293**Site Description:**

This site is the reach of Middle River from Connection Slough on the north, along the east side of Bacon Island, to the Southern Pacific (SPRR) Railroad Bridge on the south. This site has tule marshes and both mid-channel and berm islands. There are some riparian shrub-brush and woodland areas along levees.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	California black rail	FP, ST		Mar-Aug
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Fish	chinook salmon - Winter-run	FE, SE		Oct-May
Fish	delta smelt	FT, SE		Mar-May
Fish	longfin smelt	ST		Nov-May
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct

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

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T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/	US Fish and Wildlife Service, Endangered Species	(916) 414-6700
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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

Additional Site Summary Comments:

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported through this site to other parts of the delta; and second, that marsh islands and margins will be come oiled. These marsh areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marsh sediments.

Hazard and Restrictions:

Shallow water west on in-channel islands. Bridge midway between Railroad Bridge and Mildred Island has low clearance.

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

Strategy: 2-965.1 Objective: North end: Exclusion booming at the river mouth

Strategy: For oil from the north; deploy strategy for Middle River: Mandeville Reach (2-950-A). Deploy 600 ft of 9X9 Hboom across channel of Connection Slough near low bridge. Deflect to Bacon Island levee as a collection site. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		600	feet	
Boom	Oil Snare (pom-pom)			50	feet	
Boom	Sorbent			400	feet	
Anchor	Danforth	25 lb		8		
Vessel	Boom Boat			1		
Vehicle	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-965.2 Objective: South end: Prevent oil from entering the river and contaminating the marshes

Strategy: For oil from the south:

- a) Deploy a series of deflection and exclusion booms near river divergence north of Railroad Bridge. Deploy 1000 ft and 350 ft of 9X9 Hboom across the western and middle channels, respectively. Deflect to west levee (Bacon Island) for collection.
- B) Deploy 3-200 ft. sections of 9X9 Hboom in mid-channel north of Railroad Bridge; deflect to east levee (Lower Jones Tract), collecting against levee just south of boat docks.
- C) Deploy 200 ft of 6X6 Sboom across east channel entrance in front of pilings and floating "boxes", extending out from in-channel island.
- D) Deploy 400 ft. of 6X6 Sboom across north entrance of Railroad Cut - from Railroad berm north to levee. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		2000	feet	
Boom	Swamp	6x6 inch		600	feet	
Boom	Oil Snare (pom-pom)			50	feet	
Boom	Sorbent			100	feet	
Anchor	Danforth	25 lb		12		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-965.3 Objective: Oil Recovery by Shoreside skimming

Strategy: Deploy skimmers if oil accumulates in skimmable quantities. Consult IC prior to the initiation of this strategy.

Table of Response Resources

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

Logistics:

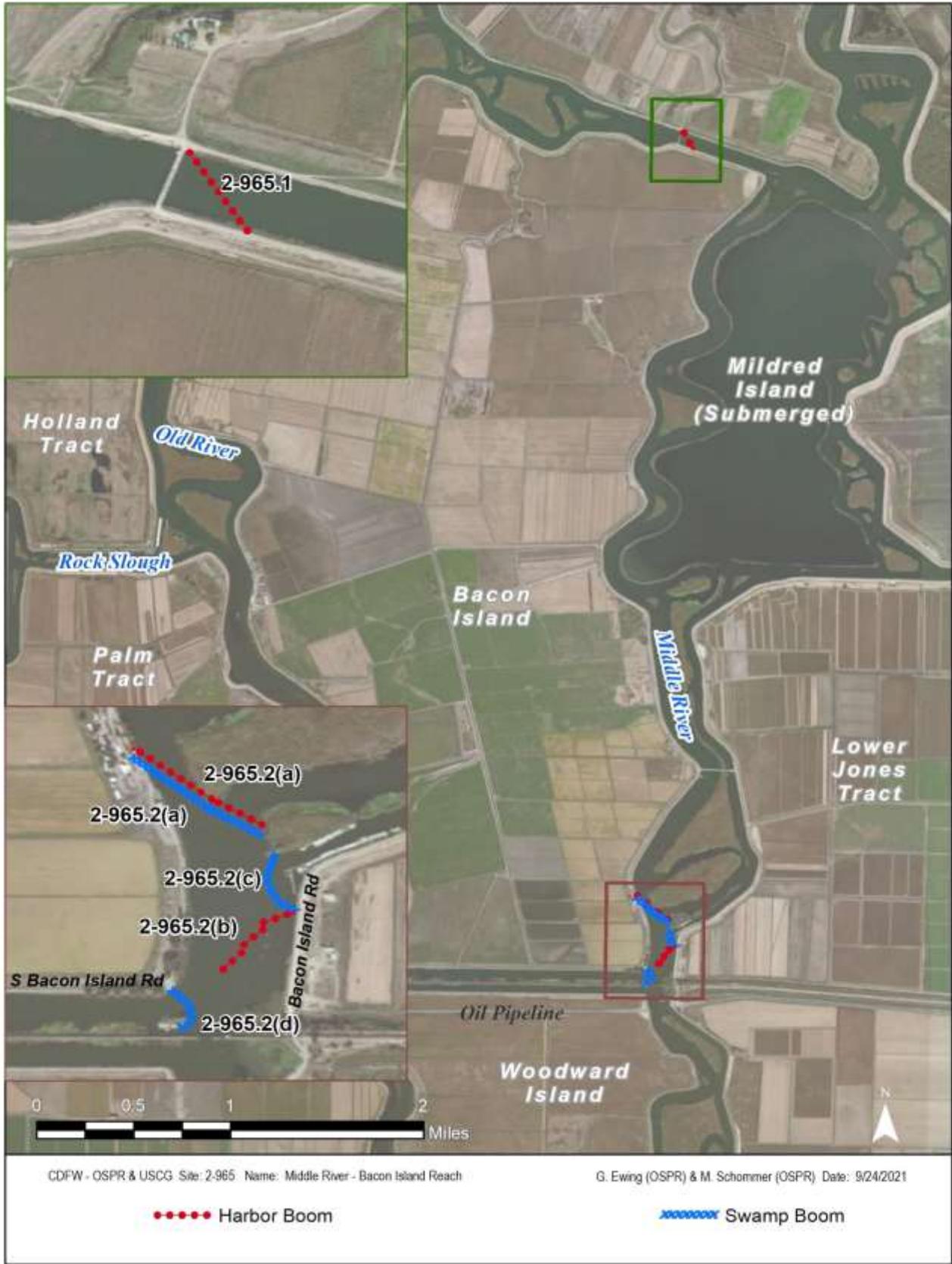
Directions: Highway 4 east past Middle River to Bacon Island Road. Turn left on Bacon Island Road out to Middle River. Follow along Lower Jones Tract levee.

Land Access: Access from levees when dry, avoid when saturated.

On-Water Limitations: Marina services at Tiki Lagoon Resort Marina and Turner Cut Resort on Turner Cut east of site.

Facilities, Staging Areas, Command Posts, Available Equipment: Staging at Bullfrog Landing and levees on Lower Jones Tract, and levees on Bacon Island. At Tiki Lagoon Resort Marina and Turner Cut Resort on Turner Cut east of site.

Communications Problems: Cell reception varies on your location.



County: San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.927579 -121.526468**Site Description:**

This site is the reach from Southern Pacific Railroad (SPRR) crossing on the north to the Highway 4 bridge on the south. A large river reach with several in-channel tule marsh islands. Bordering island levees are ripped with emergent freshwater marsh along the levee margins.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	California black rail	FP, ST		Mar-Aug
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	longfin smelt	ST		Nov-May
Fish	chinook salmon - Winter-run	FE, SE		Oct-May
Fish	delta smelt	FT, SE		Mar-May
Fish	steelhead - Central/Northern California	FT		Nov-Apr
Plants	Mason's lilaeopsis	SR		Apr-Nov
Reptiles	giant garter snake	FT, ST		Jul-Oct

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	/Manager	Central Delta Water Agency	(209) 969-7755
O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
T	/Environmental Program Manager	CA Dept. of Fish & Wildlife, Bay Delta Region	(707) 576-2837
T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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

Additional Site Summary Comments:

Several sensitive plant species reside in the area

Concerns and Advice to Responders:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marsh islands and margins will be come oiled. These marsh areas are very sensitive and serve as habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marsh sediments.

Hazard and Restrictions:

The low clearance of the bridge is a restriction to boat travel. Beware of submerged hazards.

Site Strategies:

Site Validation Level: III

Strategy: 2-970.1 Objective: North End: prevent oil from contaminating in-channel marshes

Strategy: a) For oil from the north; deploy 1000 ft of 9X9 Hboom near the UP railroad cut. Deflect oil away from islands towards levees for shore-based skimming and recovery.

B) Boom off entrances (2) to ski areas inside larger tule-island (200 ft each). Fall back position is up river towards Woodward Island Ferry.

C) Place 800 ft 9X9 Hboom in front of islands or outline with curtain or sorbent boom.

Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

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)			50	feet	
Boom	Sorbent			100	feet	
Anchor	Danforth	25 lb		12		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-970.2 Objective: South End: Prevent oil from contaminating in-channel marches.

Strategy: For oil from the south; deploy 1500 to 2000 ft of 9X9 Hboom across channel north of Trapper Slough confluence. Deflect to west side levee (Victoria Island) for collection. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		2000	feet	<i>Strategy Updated: 5/30/2017</i>
Boom	Oil Snare (pom-pom)			50	feet	<i>Last Test: 5/30/2017</i>
Boom	Sorbent			100	feet	
Anchor	Danforth	22 lb		5		
Vessel	Boom Boat			1		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			5		

Strategy: 2-970.3 Objective: Oil Recovery by Shoreside skimming

Strategy: Deploy skimmers when oil accumulates in skimmable quantities. Consult with IC prior to the initiation of this strategy.

Table of Response Resources

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

Logistics:

Directions: Key access is from Highway 4 east to Union Pacific at Middle River. Turn left on levee road across Trapper Slough to Bacon Island Road.

Land Access: Access from levees when dry, avoid when saturated.

On-Water Limitations: Launch skiffs from levee, larger vessels launch from Discovery Bay.

Facilities, Staging Areas, Command Posts, Available Equipment: Staging at Union Point or along levees.

Communications Problems: Cell reception varies on your location.



2-974-B Site Summary - Trapper Slough**2-974-B****County:** San Joaquin **ACP Division/Segment:****NOAA Chart:** 18661 Sacramento & San Joaquin River **Map Book:** SF Bay and Delta **Decimal Degrees:** 37.892729 -121.488429**Site Description:**

This site includes the entire enclosed freshwater marsh bounded by levees between Middle River and Whiskey Slough at the northern end. It is a freshwater marsh with a lush growth of tules. It is connected to Middle River only by a pump.

Resources at Risk:*ESI and Habitat:* 6B Riprap

9B Vegetated low banks

10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	delta smelt	FT, SE		Mar-May
Plants	Mason's lilaepsis	SR		Apr-Nov
Reptiles	qiant qarter snake	FT, ST		Jul-Oct
Reptiles	Western pond turtle	SSC		

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	/Manager	Central Delta Water Agency	(209) 969-7755
O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
S	/Dispatch, 24-hr	San Joaquin Office of Emergency Services	(209) 953-6200
T	/Environmental Program Manager	CA Dept. of Fish & Wildlife, Bay Delta Region	(707) 576-2837
T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
T	/Spill Response Coordinator	USFWS, SF Bay-Delta Office	(916) 799-0588

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

Additional Site Summary Comments:

Several sensitive plant species occur in this area.

Concerns and Advice to Responders:

The concern is that oil will be pumped into the slough from the river. Avoid trampling of marsh habitat during cleanup activities.

Hazard and Restrictions:

Site Strategies:

Site Validation Level: II

Strategy: 2-974.1 Objective: Exclude oil from entering slough

Strategy: Shut off pump and close all culverts leading to the slough from Middle River.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Personnel				22		

Logistics:

Directions: Access is from Highway 4 east to Middle River at Union Point Marina.

Land Access: Access from levees when dry, avoid when saturated.

On-Water Limitations: Larger boats can be launched from Discovery Bay Yacht Harbor

Facilities, Staging Areas, Command Posts, Available Equipment: Staging and boat docks at Union Point. Small skiffs from levees.

Communications Problems: Cell reception varies.



County: San Joaquin ACP Division/Segment:

NOAA Chart: 18661 Sacramento & San Joaquin River Map Book:

Decimal Degrees: 37.888482 -121.487833

Site Description:

This site is the southern extreme reach of Middle River: from Highway 4 bridge at Victoria Canal south to the confluence with the San Joaquin and Old Rivers. It is bounded by rip-rapped lined levees. Middle River has several islands with riparian vegetation. Tule marsh berm islands and freshwater fringe marshes are also present along its length.

Resources at Risk:

- ESI and Habitat: 6B Riprap
- 9B Vegetated low banks
- 10B Freshwater marshes

List of Resources at Risk:

	Resource Name	Status	Presence	Sensitivity
Birds	Swainson's hawk	FP, ST		Mar-Sep
Fish	delta smelt	FT, SE		Mar-May
Fish	chinook salmon - Winter-run	FE, SE		Oct-May
Reptiles	giant garter snake	FT, ST		Jul-Oct

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:

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O	/Dispatch, 24-hr	California Department of Water Resources	(916) 574-2714
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T	/Environmental Program Manager	CA Dept. of Fish & Wildlife, Bay Delta Region	(707) 576-2837
T	/Restoration Ecologist	US Department of Agriculture	(530) 304-2304
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C – Cultural, Historic, Archaeological; E – Entry/Owner/Access; O – Other; S – Safety; T – Trustee; X – Exclusion or Security

Additional Site Summary Comments:

Concerns and Advice to Responders:

The concern is to minimize spread of oil to habitats up-current and down and to protect mid-channel islands by deflecting oil out of center channel to collection on riprap shoreline. There are marsh islands and margins which are sensitive habitat supporting listed species. Minimize response and cleanup impacts: disturbing wildlife, trampling vegetation, and tracking oil into the sediments.

Hazard and Restrictions:

Beware of shallow water and overhead power lines.

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

Strategy: 2-980.1 Objective: Deflect oil away from in-channel islands and marshes

Strategy: a) Deploy 9X9 Hboom in 100 ft legs in several locations near lower (northern) reach. Deflect oil from islands using "V" configuration (or chevron) at upstream end of island. Deflect oil to both levee shores.

b) As two channels form on either side of the island, deploy 100 ft sections of 9X9 Hboom from island to levee in both channels, downstream of "V" configuration.

c) Recover oil from levees with shoreside skimming system and/or vacuum trucks.

Table of Response Resources

Equipment	Sub-Type	Size	Unit	QTY	Unit	Last Page Update
Boom	Harbor	9x9 inch		400	feet	
Anchor	Danforth	25 lb		5		
Vessel	Skiff or Punt			1		
Staff	Staff to Deploy			3		

Logistics:

Directions: Highway 4 east to Union Point at confluence of Middle River and Victoria Canal.

Land Access: Good access from levees when dry, avoid if saturated.

On-Water Limitations: Launch skiffs from levees and larger boats from Discovery Bay.

Facilities, Staging Areas, Command Posts, Available Equipment: Staging along levees or at Union Point Resort.

Communications Problems: Cell reception good in area.



9822.2 Response Summary Tables

A summary of the response resources is listed by site and sub-strategy next.

Summary of ACP 2 GRA 9 Response Resources by Site and Sub-Strategy

Site Site Name

Sub-Strategy PREVENTION OBJECTIVE OR CONDITION FOR DEPLOYMENT

Equipment	Sub-Type	Size/Unit	QTY/Unit
2-900 Old River Mouth at San Joaquin River			
.1 - Exclusion booming Old River at the mouth. Wind wash and strong currents can be a problem.			
Staff	Staff to Deploy		5
Boom	Harbor	9x9 inch	2000 feet
Boom	Swamp	6x6 inch	200 feet
Boom	Sorbent		200 feet
Anchor	Danforth	22 lb	11
Vessel	Boom Boat		1
Vessel	Skiff or Punt		1
2-905 Franks Tract Complex			
.1 - NO STRATEGY HAS BEEN DEVELOPED.			
2-908 Sand Mound Slough			
.1 - Exclude oil from site by executing adjacent strategies. If oil is coming from the San Joaquin River, prevent oil from entering slough and marsh habitat.			
.2 - For oil coming from Bethel Island area marinas, prevent oil from contaminating marsh habitat.			
Vessel	Skiff or Punt		1
Vessel	Boom Boat		1
Anchor	Danforth	22 lb	7
Boom	Swamp	6x6 inch	3000 feet
Staff	Staff to Deploy		5
2-910 Old River: Quimby Island Complex			
.1 - Exclude oil from moving downstream (northerly) into this reach of Old River using exclusion boom.			
Boom	Oil Snare (pom-pom)		50 feet
Staff	Staff to Deploy		5
Vessel	Skiff or Punt		1
Vessel	Boom Boat		1
Boom	Sorbent		100
Boom	Harbor	9x9 inch	1000 feet
Anchor	Danforth	25 lb	10
.2 - Exclude/collect oil from moving upstream (southward) with the tide into Old River from Frank's Tract.			
Boom	Oil Snare (pom-pom)		50 feet
Staff	Staff to Deploy		5
Vessel	Skiff or Punt		1
Vessel	Boom Boat		1
Boom	Sorbent		100 feet
Boom	Harbor	9x9 inch	1900 feet
Anchor	Danforth	25 lb	8
.3 - Oil Recovery by Shoreside skimming			
Staff			3
skimmer	self propelled		1
2-915 Rock Slough			
.1 - Exclude oil from Rock Slough at the confluence with Old River near Holland Riverside Marina.			
Staff	Staff to Deploy		5
Vessel	Skiff or Punt		1
Vessel	Boom Boat		1
Anchor	Danforth	25 lb	4
Boom	Harbor	9x9 inch	1000 feet

Sub-Strategy **PREVENTION OBJECTIVE OR CONDITION FOR DEPLOYMENT**

Equipment	Sub-Type	Size/Unit	QTY/Unit
2-917 Railroad Cut			
.1 - Exclude / Collect oil at west ends (Old River) and deflect to collection at island levee.			
Boom	Oil Snare (pom-pom)		50 feet
Boom	Harbor	9x9 inch	500 feet
Boom	Sorbent		100 feet
Vessel	Boom Boat		1
Vessel	Skiff or Punt		1
Staff	Staff to Deploy		5
Anchor	Danforth	25 lb	5
.2 - Exclude oil at east ends (Middle River)			
Boom	Swamp	6x6 inch	800 feet
Anchor	Danforth	25 lb	5
Vessel	Boom Boat		1
Vessel	Skiff or Punt		1
Staff	Staff to Deploy		5
.3 - Protection booming of marshy entire margin of railroad grade both sides			
Vessel	Boom Boat		5
Anchor	Danforth	22 lb	31
Vessel	Skiff or Punt		1
Staff	Staff to Deploy		16
Boom	Swamp	6x6 inch	15000 feet
.4 - Oil Recovery by Shoreside skimming			
skimmer	self propelled		1
Staff	Staff to Deploy		3
2-920 Old River: Orwood Reach			
.1 - Deflection booming: Protect in-channel marsh islands from oil either coming up river or down river.			
Boom	Harbor	9x9 inch	500 feet
Anchor	Danforth	25 lb	9
Vessel	Boom Boat		1
Staff	Staff to Deploy		3
.2 - Deflection booming: Protect in-channel marsh islands from oil. Recover oil in channel north of Indian Slough.			
Staff	Staff to Deploy		5
Boom	Harbor	9x9 inch	1200 feet
Anchor	Danforth	22 lb	5
Vessel	Boom Boat		1
Vessel	Skiff or Punt		1

Sub-Strategy **PREVENTION OBJECTIVE OR CONDITION FOR DEPLOYMENT**

Equipment	Sub-Type	Size/Unit	QTY/Unit
2-922 Indian Slough			
.1 - Deflection booming - Protect slough by deflecting oil coming down Old River.			
Anchor	Danforth	25 lb	3
Boom	Harbor	9x9 inch	500 feet
Vessel	Boom Boat		1
Staff	Staff to Deploy		3
.2 - Exclude oil from entering Island Slough from Old River. Recover oil near the confluence.			
Staff	Staff to Deploy		8
Boom	Harbor	9x9 inch	1600 feet
Anchor	Danforth	25 lb	18
Vessel	Boom Boat		1
Vessel	Skiff or Punt		1
skimmer	shoreside		1
.3 - Exclude oil from impacting in-channel tule marsh islands.			
Anchor	Danforth	25 lb	15
Staff	Staff to Deploy		5
Vessel	Boom Boat		1
Boom	Swamp	6x6 inch	3000 feet
Vessel	Skiff or Punt		1
.4 - Exclude oil from entering Discovery Bay and channel west of Discovery Bay.			
Staff	Staff to Deploy		5
Boom	Harbor	9x9 inch	1300 feet
Anchor	Danforth	25 lb	8
Vessel	Boom Boat		1
Vessel	Skiff or Punt		1
2-924 Woodward Canal			
.1 - Exclude oil from entering the canal and impacting marsh islands.			
Staff	Staff to Deploy		5
Anchor	Danforth	22 lb	5
Vessel	Boom Boat		1
Vessel	Skiff or Punt		1
Boom	Harbor	9x9 inch	1200 feet
2-925 Old River: Coney Island Reach			
.1 - Exclusion to collection at shore			
Staff	Staff to Deploy		5
Anchor	Danforth	25 lb	
Boom	Sorbent		100 feet
Boom	Oil Snare (pom-pom)		50 feet
Boom	Harbor	9x9 inch	1500 feet
Vessel	Skiff or Punt		1
Vessel	Boom Boat		1
.2 - Exclude oil from entering Clifton Court Forebay.			
Staff	Staff to Deploy		3
Vessel	Boom Boat		1
Anchor	Danforth	25 lb	2
Boom	Harbor	9x9 inch	300 feet
.3 - Oil Recovery by Shoreside skimming			
Staff	Staff to Deploy		3
skimmer	self propelled		1

Sub-Strategy **PREVENTION OBJECTIVE OR CONDITION FOR DEPLOYMENT**

Equipment	Sub-Type	Size/Unit	QTY/Unit
2-927 Widdows and Eucalyptus Islands			
.1 - Exclude oil from entering Widdows Island.			
Vessel	Boom Boat		1
Staff	Staff to Deploy		5
Vessel	Skiff or Punt		1
Anchor	Danforth	22 lb	4
Boom	Sorbent		800 feet
Boom	Swamp	6x6 inch	800 feet
.2 - Prevent oil from reaching both islands.			
Staff	Staff to Deploy		5
Boom	Harbor	9x9 inch	1500 feet
Boom	Oil Snare (pom-pom)		50 feet
Boom	Sorbent		100 feet
Anchor	Danforth	25 lb	7
Vessel	Skiff or Punt		1
Vessel	Boom Boat		1
.3 - Prevent oil from entering Eucalyptus Island			
Staff	Staff to Deploy		5
Vessel	Skiff or Punt		1
Vessel	Boom Boat		1
Anchor	Danforth	22 lb	4
Boom	Sorbent		250 feet
Boom	Swamp	6x6 inch	550 feet
.4 - Oil Recovery by Shoreside skimming			
Staff	Staff to Deploy		3
skimmer	self propelled		1
2-929 Victoria Canal			
.1 - West end of canal: Keep oil out of marsh areas located in middle of canal.			
.2 - Exclude oil and stop spread when oil threatens from east end of canal.			
Boom	Sorbent		100 feet
Staff	Staff to Deploy		3
Anchor	Danforth	22 lb	5
Boom	Harbor	9x9 inch	800 feet
Boom	Oil Snare (pom-pom)		50 feet
Vessel	Boom Boat		1
.3 - Exclude oil from entering Clifton Court Forebay.			
.4 - Oil Recovery by Shoreside skimming			
Staff	Staff to Deploy		3
skimmer	self propelled		1
2-930 Old River: Fabian Tract Reach			
.1 - Divert and collect oil at the river confluence at Hammer Island.			
Staff	Staff to Deploy		3
Boom	Harbor	9x9 inch	500 feet
Vessel	Boom Boat		1
Anchor	Danforth	25 lb	5
Boom	Sorbent		100 feet
Boom	Oil Snare (pom-pom)		50 feet
.2 - Oil Recovery by Shoreside skimming			
skimmer	shoreside		1
Staff	Staff to Deploy		2

Site **Site Name**

Sub-Strategy **PREVENTION OBJECTIVE OR CONDITION FOR DEPLOYMENT**

	Equipment	Sub-Type	Size/Unit	QTY/Unit
2-932 Grant Line Canal (West)				
.1 - Exclude oil moving up Old River from entering Grant Line Canal.				
	Vessel	Boom Boat		1
	Vessel	Skiff or Punt		1
	Boom	Sorbent		100 feet
	Boom	Oil Snare (pom-pom)		50 feet
	Staff	Staff to Deploy		5
	Boom	Harbor	9x9 inch	1000 feet
.2 - Oil Recovery by Shoreside skimming				
	skimmer	self propelled		1
	Staff	Staff to Deploy		3
2-934 Tom Paine Slough				
.1 - NO STRATEGY HAS BEEN DEVELOPED.				
2-935 Paradise Cut				
.1 - NO STRATEGY HAS BEEN DEVELOPED.				
2-940 Old River: Stewart Tract Reach				
.1 - NO STRATEGY HAS BEEN DEVELOPED.				
2-950 Middle River, Mandeville Reach				
.1 - Exclusion/Collection at mouth of Middle River. Wind wash and strong currents can be a problem.				
	Staff	Staff to Deploy		5
	Boom	Harbor	9x9 inch	1700 feet
	Boom	Oil Snare (pom-pom)		50 feet
	Boom	Sorbent		2100 feet
	Anchor	Danforth	25 lb	7
	Vessel	Boom Boat		1
	Vessel	Skiff or Punt		1
.2 - Exclude/Collect oil at junction with Latham Slough / Mildred Island open water.				
	Boom	Sorbent		1500 feet
	Staff	Staff to Deploy		5
	Anchor	Danforth	25 lb	5
	Vessel	Skiff or Punt		1
	Boom	Harbor	9x9 inch	1500 feet
	Vessel	Boom Boat		1
.3 - Oil Recovery by Shoreside skimming				
	Staff	Staff to Deploy		3
	skimmer	shoreside		1

Sub-Strategy **PREVENTION OBJECTIVE OR CONDITION FOR DEPLOYMENT**

Equipment	Sub-Type	Size/Unit	QTY/Unit
2-965 Middle River: Bacon Island Reach			
.1 - North end: Exclusion booming at the river mouth			
Vehicle	Skiff or Punt		1
Boom	Oil Snare (pom-pom)		50 feet
Boom	Sorbent		400 feet
Vessel	Boom Boat		1
Staff	Staff to Deploy		5
Anchor	Danforth	25 lb	8
Boom	Harbor	9x9 inch	600 feet
.2 - South end: Prevent oil from entering the river and contaminating the marshes			
Boom	Sorbent		100 feet
Staff	Staff to Deploy		5
Vessel	Skiff or Punt		1
Anchor	Danforth	25 lb	12
Boom	Oil Snare (pom-pom)		50 feet
Boom	Swamp	6x6 inch	600 feet
Boom	Harbor	9x9 inch	2000 feet
Vessel	Boom Boat		1
.3 - Oil Recovery by Shoreside skimming			
skimmer	self propelled		1
Staff	Staff to Deploy		3
2-970 Middle River: Upper Jones Tract			
.1 - North End: prevent oil from contaminating in-channel marshes			
Vessel	Skiff or Punt		1
Boom	Oil Snare (pom-pom)		50 feet
Staff	Staff to Deploy		5
Boom	Harbor	9x9 inch	1200 feet
Boom	Sorbent		100 feet
Anchor	Danforth	25 lb	12
Vessel	Boom Boat		1
.2 - South End: Prevent oil from contaminating in-channel marches.			
Vessel	Boom Boat		1
Vessel	Skiff or Punt		1
Anchor	Danforth	22 lb	5
Boom	Sorbent		100 feet
Boom	Oil Snare (pom-pom)		50 feet
Boom	Harbor	9x9 inch	2000 feet
Staff	Staff to Deploy		5
.3 - Oil Recovery by Shoreside skimming			
skimmer	self propelled		1
Staff	Staff to Deploy		3
2-974 Trapper Slough			
.1 - Exclude oil from entering slough			
Personnel			22
2-980 Middle River: Union Island Reach			
.1 - Deflect oil away from in-channel islands and marshes			
Boom	Harbor	9x9 inch	400 feet
Anchor	Danforth	25 lb	5
Vessel	Skiff or Punt		1
Staff	Staff to Deploy		3

9822.3 Lists of Economic Resources Susceptible to Oiling

A summary of Human Health and Safety Sites and Economic Resources is listed by GRA next. Refer to Section 9804 for more information.

Economic Sites - GRA 9

Site Information	Site Number & Location	Lat/Long & Priority
Beacon Harbor 3861 N Willow Rd Bethel Island CA 94511 Phone: 925-684-2174 Site Description:	Site Number: 2-9-CC-100-D Operational Division:	Public Marinas and Harbors D Lat/Long: 38.04 -121.62
Carol's Harbor & Marina 4850 Sandmound Blvd Oakley CA 94561 Phone: 925-684-2803 Site Description:	Site Number: 2-9-CC-105-D Operational Division:	Public Marinas and Harbors D Lat/Long: 37.99 -121.62
Sugar Barge Resort & Marina 1440 Sugar Barge Rd Bethel Island CA 94511 Phone: 925-684-9075 Site Description:	Site Number: 2-9-CC-110-D Operational Division:	Public Marinas and Harbors D Lat/Long: 38.03 -121.62
Holland Riverside Marina 7000 Holland Tract Rd Brentwood CA 94513 Phone: 925-322-4084 Site Description:	Site Number: 2-9-CC-120-D Operational Division:	Public Marinas and Harbors D Lat/Long: 37.98 -121.58
Cruiser Haven Marina 7000 Orwood Rd Brentwood CA 94513 Phone: 925-634-8000 Site Description:	Site Number: 2-9-CC-125-D Operational Division:	Public Marinas and Harbors D Lat/Long: 37.94 -121.57
Orwood Resort 4451 Orwood Rd Brentwood CA 94513 Phone: 925-634-2550 Site Description:	Site Number: 2-9-CC-130-D Operational Division:	Public Marinas and Harbors D Lat/Long: 37.94 -121.61
Discovery Bay Marina 5901 Marina Rd #1 Discovery Bay CA 94505 Phone: 925-634-5928 Site Description:	Site Number: 2-9-CC-135-D Operational Division:	Public Marinas and Harbors D Lat/Long: 37.9 -121.59
Lazy M Marina 5050 Clifton Court Rd Discovery Bay CA 94505 Phone: 925-634-4555 Site Description:	Site Number: 2-9-CC-140-D Operational Division:	Public Marinas and Harbors D Lat/Long: 37.84 -121.6
Whiskey Slough Marina and Storage 3401 S Whiskey Slough RD Holt CA 95234 Phone: 925-595-0574 Site Description:	Site Number: 2-9-SJ-100-D Operational Division:	Public Marinas and Harbors D Lat/Long: 37.94 -121.43
Tiki Lagoon Resort & Marina 12988 W McDonald Rd Stockton CA 95206 Phone: 209-941-8975 Site Description:	Site Number: 2-9-SJ-105-D Operational Division:	Public Marinas and Harbors D Lat/Long: 37.98 -121.47

Economic Sites - GRA 9

Site Information

Turner Cut Resort
12888 Neugebauer Rd
Stockton CA 95206
Phone: 209-465-4129

Site Description:

Site Number & Location

Site Number: 2-9-SJ-110-D
Operational Division:

Lat/Long & Priority

Public Marinas and Harbors **D**
Lat/Long: 37.98 -121.47