SHORELINE PROTECTION TABLES (SP TABLES) FOR VESSEL TRAFFIC IN CALIFORNIA'S MARINE WATERS
(Tables Dated August 29, 2013)

PURPOSE AND SCOPE

The Shoreline Protection Tables (SP Tables) set forth planning requirements for shoreline protection for vessels in California's marine waters. A vessel owner/operator shall demonstrate through contracts(s) or other approved means (see Sections 815.05(b) or 825.05(a)), the shoreline protection response resources necessary to protect each type of shoreline and all applicable sensitive sites as outlined in the appropriate SP Tables. Based on these Tables the owner/operators will be able to ascertain the type of equipment that must be available for the appropriate response strategies necessary to protect the shoreline types that could be affected. For the purpose of meeting the regulatory requirements, contracts for shoreline protection services can only be made with OSROs Rated by the Office of Spill Prevention and Response.

The SP Tables are for vessels that transit in California's marine waters. In addition, for the small harbors identified, a Small Harbor Table is included to define preparedness levels for these areas.

The requirements set forth in these Tables are planning standards and may not reflect the exigencies of actual spill response. However, these are the standards that must be used to determine the amount of equipment and personnel that must be under contract or other approved means. The owner/operator is ultimately responsible for protecting the sensitive sites identified from the entire volume of an actual spill regardless of the planning volume.

Skimming assets required to execute the strategies listed in the Tables will be included as part of the required on-water recovery capacity, as stipulated in CCR Sections 818.02(e) and 827.02(h), and should not be construed as requiring additional skimming capacity. Sorbent boom requirements included in the first 24 hours of response must be on scene by hour 24, but not necessarily deployed at specific sites. In a few instances (only as indicated in the Tables) up to 2,000 feet of containment boom required to meet the 2-hour on-water containment requirement, can be utilized for shoreline protection.

An owner/operator may propose alternatives to what is listed in the SP Tables for boats and staff only. The proposal may be tested by the Administrator anytime prior or subsequent to plan approval. The SP Tables shall be reviewed and updated as needed (e.g., to reflect updates to the ACPs, etc.). Updates to the SP Tables will be processed by OSPR staff using the procedures outlined in the Administrative Procedure Act.

A glossary of terms used in the SP Tables has been included (last page). This glossary explains the terms and abbreviations used in the tables. These are the commonly understood meanings of these terms, and are included here to make the SP Tables comprehensive, stand-alone documents.

To the greatest extent possible, California has endeavored to be consistent with the scope and intent of the Federal oil spill response regulations and the Area Contingency Plans (ACP) completed by the U.S. Coast Guard, state agencies, and local governments, with public participation, as required by the Oil Pollution Act of 1990 (33 USC 2701, et seq.).

SHORELINE PROTECTION TABLE - CALIFORNIA NORTH COAST - HUMBOLDT BAY 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt	Other Boom Type	Sorbent Boom	Anchoring Systems No.	Anchoring Systems Kind	Boom Boats	Skiffs	Skimmers No.	Skimmers Type	Special Equipment and Notes	Staff
		First 6 hours	**2000**	**4000**	**0**		**10**	**15**							**20**
2.5	1-340.1	Palco Marsh												Flash boards & keys to tide gates at Chevron & city	2
2.5	1-340.2	Palco Marsh												debris hooks, shovels, pry-bar, pitchfork	2
2.5	1-340.3	Palco Marsh					10								2
3	1-330.1	Indian Isl (swamp boom supports 1-310.2 strategy)		500					22 lb+ Danforth anchors	1					2
3	1-345.1	Elk River & Marshes												Close drop gates - bolt cutters or keys for lock	2
4	1-310.2*	North Humboldt Bay		3500				5	22 lb+ Danforth anchors	2		1	SPS		8
* up to 2000 ft of containment boom required to meet the 2 hour on-water containment requirement can be utilized															
		7-12 hours	**4600**		**0**		**300**	**19**							**19**
7	1-305.2	Humboldt Bay Mouth / Samoa Spit	2000					10	22 lb+ Danforth anchors	2		1	SSS/SPS		8
7	1-328.2	Woodley Island	1200					4	22 lb+ Danforth anchors	1		1	SPS		5
11	1-345.2	Elk River & Marshes	1400				300	5	22 lb+ Danforth anchors		1				4
11	1-345.3	Elk River & Marshes										1	SPS/SSS		2
		13-24 hours	**750**	**400**	**0**		**1550**	**23**							**47**
13	1-328.1	Woodley Island	1200					4	22 lb+ Danforth anchors	1		1	SPS	Stakes,shovels, hammer	3
14	1-350.1	South Humboldt Bay	1200					5	22 lb+ Danforth anchors	2		2	SSS		10
23	1-326.2	Eureka Slough		1000			100			1		1	SSS	collection and containment package	10
24	1-310.3	North Humboldt Bay	2000					10	22 lb+ Danforth anchors	1		1	SFS		4
24	1-320.1	Mad River Slough	1200	100			1200	4	22 lb+ Danforth anchors		1				6
24	1-324.1	Arcata Bay Sloughs - Jacoby Creek	500	100			100							Stakes,shovels, hammer	6
24	1-324.2	Arcata Bay Sloughs - Gannon Slough	500	100			100							Stakes,shovels, hammer	6
24	1-324.3	Arcata Bay Sloughs - Butcher Slough	300	50			100							Stakes,shovels, hammer	6
24	1-324.4	Arcata Bay Sloughs - McDonald Slough	150	50			50							Stakes,shovels, hammer	6

SHORELINE PROTECTION TABLE - CALIFORNIA NORTH COAST - CAPE MENDOCINO NORTH 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt	Other Boom Type	Sorbent Boom	Anchoring Systems No.	Anchoring Systems Kind	Boom Boats	Skiffs	Skimmers No.	Skimmers Type	Special Equipment and Notes	Staff
		First 12 hours	**4600**	**0**	**0**		**0**	**18**				**0**			12
2	1-268.1	False Cape Rock	on-water response only; no shoreline protection feasible												
2	1-273.1	Cape Mendocino	on-water response only; no shoreline protection feasible												
4	1-265.1	Centerville Beach	on-water response only; no shoreline protection feasible												
12	1-260.2	Eel River	4600					18	22 lb+ Danforth anchors	1					12

SHORELINE PROTECTION TABLE - CALIFORNIA NORTH COAST - PT ARENA 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt	Other Boom Type	Sorbent Boom	Anchoring Systems No.	Anchoring Systems Kind	Boom Boats	Skiffs	Skimmers No.	Skimmers Type	Special Equipment and Notes	Staff

		First 6 hours	**600**	**300**	**0**	**0**	**3**			~~0~~			**10**
2	1-484.3	Garcia River & Manchester State Beach	600				3 22 lb+ Danforth anchors		1				5
2	1-486.1	Point Arena	on-water response only; no shoreline protection feasible										
5	1-482.2	Alder Creek		300									5
		7 to 24 hours	**1400**	**0**	**100**	**300**	**28**			~~0~~			
13	1-474.2	Greenwood Creek to Cuffey's Cove									over-flight assessment needed		**19**
13	1-476.1	Bonee Gulch	on-water response only; no shoreline protection feasible										
13	1-478.1	Elk Creek	on-water response only; no shoreline protection feasible										
16	1-472.2	Navarro River St Pk	1000				12 22 lb+ Danforth anchors		2				8
17	1-470.1	Salmon Point and Big Salmon Creek									install filter fence: fencing & 200 pom-poms		3
18	1-468.1	Albion River	300			300	12 22 lb+ Danforth anchors		1				5
24	1-464.2	Van Dam St Pk and Little River	100		100 OS		4 22 lb+ Danforth anchors						3

SHORELINE PROTECTION TABLE - S.F. SECTOR - PT REYES 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt Type	Sorbent Boom	Anchoring Systems No. Kind	Boom Boats	Skiffs	Skimmers No. Type	Special Equipment and Notes	Staff
		First 6 hours	**3000**	**0**	**50**	**100**	**15-20**			~~0~~		**9**
3	2-201.1	Pt. Reyes Headlands	on-water response only; no shoreline protection feasible									
6	2-203.2	Drakes Beach (West)	3000		50 OS	100	15-20 22#+ Danforth	~~3~~ 4			Storage tanks, bladders or vac trucks	9
6	2-207.1	Limnatour Spit									Front end loader, grader	
		7-24 hours	**6000**	**5080**	**3100**	**8900**	**96**					**84**
8	2-198.1	Point Reyes Beach	on-water response only; no shoreline protection feasible									0
12	2-205.1	Drakes Estero			2000 OB*		25 40#+ Danforth	4				28
12	2-205.2	Drakes Estero	6000		50 OS	2100	30 22#+ Danforth	4	4			28
12	2-210.1	Point Resistance	on-water response only; no shoreline protection feasible									0
12	2-213.1	Miller Point	on-water response only; no shoreline protection feasible									0
12	2-216.2	Double Point and Stormy Stack			1000 OB*		10 40#+ Danforth	2				6
12	2-219.~~2~~	Duxbury Reef				5000						4
14	2-198.1	Pt. Reyes Beach	on-water response only; no shoreline protection feasible									
18	2-197.2	Abbott's Lagoon (if not naturally closed)		500		600	4 12#+ Danforth		1			8
20	2-222.1	Bolinas Lagoon		4380	50 OS	200	25 15x22#, 10x30-45#, 8 stakes		3			8
24	2-225.1	Redwood Creek/Big Lagoon/Muir Beach		200		1000	2 small anchors or stakes					2
24	2-231.1	Bird Island	on-water response only; no shoreline protection feasible									

SHORELINE PROTECTION TABLE - S.F. SOUTH COASTAL - PILLAR PT. 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt Type	Sorbent Boom	Anchoring Systems No. Kind	Boom Boats	Skiffs	Skimmers No. Type	Special Equipment and Notes	Staff

		First 6 hours	**0**	**50**	**0**	**50**	**8**						**2**
2	2-260.1	Seal Cove to Pillar Point	on-water response only; no shoreline protection feasible										
5	2-255.1	Shelter Cove & San Pedro Rock	on-water response only; no shoreline protection feasible										
5	2-258.1	Point Montara Area	on-water response only; no shoreline protection feasible										
6	2-253.1	San Pedro Creek		50		50	8 stakes						2
		7-24 hours	**500**	**12350**	**0**	**200**	**25**			**1**			**19**
11	2-264.4	Pillar Point Marsh & Denniston Creek	500				9 2/50+ & 7/22 danforths + 20' chain	1	1	1 vessel sk			5
12	2-264.1	Pillar Point Marsh & Denniston Creek									culverted berm using sandbags or earthmovers		2
12	2-264.2	Pillar Point Marsh & Denniston Creek		50			3 stakes				stake to keep from catinary sag.		2
16	2-264.5	Pillar Point Marsh & Denniston Creek		12300		200	13 12+# danforths & stakes	2	2				10

SHORELINE PROTECTION TABLE - S.F. SECTOR - SOUTH S.F. BAY / ANCHORAGE 9 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt Type	Sorbent Boom	Anchoring Systems No. Kind	Boom Boats	Skiffs	Skimmers No. Type	Special Equipment and Notes	Staff
		First 6 hours	**8800**	**300**	**0**	**900**	**23**			~~0~~		**39**
2	2-307.1	Alameda Eelgrass Beds									Initial on-site assessment needed	1
3	2-304.1	Middle Harbor Shoreline Park	2500				7 7/22 + danforth	2	1			7
3	2-309.1	San Leandro Bay	1200	300		200	5 22+# danforth & chain	2	1		Bboat: very shallow draft	8
3	2-351.1	Yerba Buena Island	3000				7 22+# w/ 20' 1/2" chain	3	1		3000' 1/2" anchor line	11
4	2-309.2	San Leandro Bay	1500				4 22+# danforth	2	1			8
4	2-310.1	Bay Farm Island Eelgrass Beds									Initial on-site assessment needed	1
6	2-401.1	Pier 39	1600			700	tie boom to pilings/breakwall	1			boom tending for traffic	3
		7-12 hours	**2000**	**550**	**0**	**250**	**19**			~~0~~		**8**
12	2-353.1	Heron's Head Park - India Basin		200		200	12 12 stakes					2
12	2-354.1	Islais Creek - Pier 94 Saltmarsh	1000	50		50	3 22+# danforths & stakes	1	1			3
12	2-403.1	Crissy Field Tidal Marsh		300			1 12+/danforth w chain & 2 stakes		1			3
12	2-415.1	Horsehoe Bay	1000				3 3/22# danforth		1		1 vac truck	
		13-18 hours	**8000**	**1950**	**0**	**600**	**29**					**29**
14	2-312.1	Oyster Point Bay		850			6 12#+ danforths + 4 stakes		2			4
14	2-352.2	South Basin, Hunters Point	500				2 22+# danforth	1			shallow water Bboat	3
18	2-454.1	Richmond Inner Harbor/Hoffman Marsh	2500	1100		200	6 - 8 22+# danforth, 15' 1/2 chain	2	2	1	Shallow draft boom boat.	8
18	2-480.2	Albany Marsh	1700			100	9 22+# danforth	2	1	1 Shallow	very shallow Bboats , skimmers & stakes.	8
24	2-420.2	Richardson Bay Marshes	3300			300	6 22+# danforths + chain	2				6

SHORELINE PROTECTION TABLE - S.F. SECTOR - CENTRAL SAN FRANCISCO BAY 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt Type	Sorbent Boom	Anchoring Systems No. Kind	Boom Boats	Skiffs	Skimmers No. Type	Special Equipment and Notes	Staff
		First 6 hours	**12900**	**0**	**0**	**0**	**36**			**0**		**45**
3	2-304.1	Middle Harbor Shoreline Park	2500				7 7/22 + Danforth	2	1	SSS		7
3	2-351.1	Yerba Buena Island	3000				7 22#+ w/ 20' 1/2" chain	3	1		3000' 1/2" anchor line	11
5	2-453.1	Brook's Island	2300				7 22+# danforths + chain	1	1		boom boat capable of withstanding grounding	4
5	2-495.1	Emeryville Lagoon/Mudflats	3600				7 22#+ danforth + 15' chain	3	2		Bboat: 1 very shallow draft	11
5	2-490.1	Berkeley Eelgrass Beds									Initial on-site assessment needed	1

6	2-480.1	Albany Marsh	1500				8	22#+ danforths	2	2		very shallow Bboats , skimmers & stakes.	11
		7-12 hours	**3500**	**2500**	**4050**	**3300**	**36**						**40**
7	2-454.1	Richmond Inner Harbor/Hoffman Marsh	2500	1100		200	8	22#+ danforth, 15' 1/2 chain	2	2	1	Shallow draft boom boat.	8
9	2-234.2	Point Bonita and Bonita Cove			2000 OB*		10	40-60# Danforth	2				9
9	2-236.2	Pt. Diablo to Lime Point			2000 OB*		8-10	40-60# Danforth	2				13
9	2-415.1	Horseshoe Bay	1000				3	3/22# Danforth		1		1 vac Truck	2
11	2-225.1	Redwood Creek/Big Lagoon/Muir Beach		200		1000	2	small anchors or stakes					2
11	2-228.1	Rodeo Lagoon		1200	50 OS	2100	6	small anchors or stakes		~~+~~ 2			6
		13-18 hours	**~~8~~300**	**250**	**0**	**1550**	**25**				**~~0~~**		**31**
13	2-401.1	Pier 39	1600			700		tie boom to pilings/breakwall	1			boom tending for traffic	3
13	2-451.1	Castro Rocks	3000			300	10	5/40+ northhill & 7/22+ danforth	3			maneuverable Bboats & 1500' line	11
14	2-420.1	Richardson Bay Marshes	2700			300	12	22+# danforths + chain	3	1		Bboats capable of shallows & obstructions	11
14	2-506.1	San Pablo Bay Eelgrass Bed										Initial on-site assessment needed	1
15	2-353.1	Heron's Head Park - India Basin		200		200		12 stakes					2
15	2-354.1	Islais Creek - Pier 94 Saltmarsh	1000	50		50	3	22#+/danforths & stakes	1	1			3
		19-24 hours	**1500**		**0**	**0**	**4**						

SHORELINE PROTECTION TABLE - S.F. SECTOR - SAN PABLO BAY GRA 5 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt Type	Sorbent Boom	Anchoring Systems No. Kind	Boom Boats	Skiffs	Skimmers No. Type	Special Equipment and Notes	Staff
		First 6 hours	**8500**	**1200**	**0**	**900**	**41**			**~~0~~**		**35**
3	2-452.2	Richmond Eelgrass Beds	2500				6 22# + chain	2	1			6
4	2-501.1	Castro Creek and Marshes	4000				10 22#+/Danforth + 20' chain	4				12
4	2-502.1	San Pablo Creek Marshes	2000				15 12+# Danforth	2	2			10
4	2-506.1	San Pablo Bay Eelgrass Bed									Initial on-site assessment needed.	
5	2-503.1	Pinole Pt. Marshes-South		900		900	8 12#+ Danforth anchors	1	1			5
6	2-452.1	Richmond Eelgrass Beds		300			2 stakes or anchors	0	1			2
		7-12 hours	**8400**	**4900**	**0**	**6000**	**38**			**~~0~~**		**25**
7	2-451.3	Castro Rocks	3000	2500			15 5/40#+ northhills & 10/22#+Danforths	3	1		maneuverable Bboats & 1500' line	11
7	2-503.2	Pinole Pt. Marshes-South	5400			6000	16 22#+ danforth	2	1			8
10	2-422.1	Keil Cove		2400			7 20#+ w 10' 1/2" chain	2			1,200 feet of 1/2" anchor rope	6
		13-24 hours	**9000**	**3200**	**0**	**0**	**24**			**~~0~~**		**24**
13	2-451.2	Castro Rocks (flood tide, oil from S or SE)	6000				9 5/40 # Danforth and 4/22 # Danforth	3	1		maneuverable Bboats & 1500' line	11
16	2-453.2	Brook's Island		3200			8 5/22#+/danforth & 3 stakes	1	1		boom boat capable of withstanding grounding	4
24	2-427.1	Marin Islands	3000				7 22+/danforths + chain.	3				9

SHORELINE PROTECTION TABLE - S.F. SECTOR - SUISUN BAY GRA 6 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt Type	Sorbent Boom	Anchoring Systems No. Kind	Boom Boats	Skiffs	Skimmers No. Type	Special Equipment and Notes	Staff
		First 6 hours	**9500**	**3450**	**0**	**5100**	**104**			**~~0~~**		**56**

2	2-605.2	Hastings Slough & Point Edith Marshes	2400				6	5/22#+/danforths + 20'chain	3				9
3	2-605.1	Hastings Slough & Point Edith Marshes	1500	1100		2300	38	5/22#+ & 11/12#+ danforth & 22 stakes	2	6		bboat: shallow, strandable. Stakes	18
3	2-607.1	Weapons Station Marshes & Seal Islands		1050		900	14	4/12#+/danforth & 10 stakes		1			2
4	2-603.1	Bulls Head marsh and Pacheco Creek	1100	400		1000	19	4/22#+ & 5/12#+ danforths & 10 stakes	1	2		bboat: strandable, shallow water, stakes	7
4	2-631.2	Roe Island	3000				7	75#+ danforth + heavy chain	3	1			9
5	2-608.1	Shore Acres Marsh		900		900	16	3#+ danforths & stakes	1	1			3
5	2-633.1	Middle Ground Island	1500				4	22#+ danforths & chain	2	1			8
		7-12 hours	**5500**	**5650**		**6500**	**105**				**0**		**48**
7	2-702.1	Stake Point Marshes	2000			600	22	4/22#+ & 6/12#+/danforths stakes &	~~3~~ 2	2			10
7	2-752.1	Chips Island, Southern Side	300	1200		300	30	30/12+# danforths and stakes	2	1		Bboat: shallow draft	8
8	2-601.2	Martinez Marsh	600				1	22#+/danforth + 20' chain	1				3
8	2-673.1	Honker Bay East - Chipps Island Shore	400	1700		1000	15	3/22#+ & 4/12#+& danforth & 8 stakes	2	1			5
9	2-601.1	Martinez Marsh		250		1300	1	12#+ anchor & stakes		1		boat capable of shallow grounding	2
11	2-632.1	Ryer Island	2200	1900		3000	30	15/22#+& 15/5#+/danforth 20 stakes	4	3		1 very shallow draft boats & 18 flags	18
12	2-631.1	Roe Island		600		300	6	12#+/danforths & stakes		1		very shallow boat, draft airboat or hovercraft &	2
		13-18 hours	**9000**	**3450**	**0**	**400**	**59**				**0**		**65**
13	2-667.1	Freeman & Snag Islands	1200	250			8	12#+/danforths & stakes	1	2			7
13	2-705.1	Mallard Island	2200			400	12	825# & 4/15# danforth	3	2			14
14	2-667.2	Freeman & Snag Islands	1300				6	22#+/danforths & stakes	2				6

SHORELINE PROTECTION TABLE - S.F. SECTOR - SUISUN BAY GRA 6, continued 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt	Other Boom Type	Sorbent Boom	Anchoring Systems No.	Anchoring Systems Kind	Boom Boats	Skiffs	Skimmers No.	Skimmers Type	Special Equipment and Notes	Staff
14	2-671.1	Honker Bay West - Wheeler Island Shore	1300	700				6	6/12#+/danforths & stakes	2	4				15
17	2-688.1	Dutton Island		2500				22							12
18	2-755.1	Spoonbill Creek	3000					5	22#+ danforth, 100' line, 30' chain	3	1				11
		18 - 24 hours ~~ebb~~	**19800**	**300**	**0**		**300**	**47**				**1**			**66**
19	2-660.1	Grizzly Bay	13000					26	22#+/danforth & chain	~~1~~ 12	2			shallow draft boom boat - grounding capable	40
20	2-672.1	Honker Bay North - Van Sickle Island	800	300			300	8	12#+ danforths	2	2	1	SSS		10
20	2-712.1	Winter Island	6000					13	22+#/danforth anchors	4	2				16

SHORELINE PROTECTION TABLE - S.F. SECTOR - MONTEREY ANCHORAGE A 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt	Other Boom Type	Sorbent Boom	Anchoring Systems No.	Anchoring Systems Kind	Boom Boats	Skiffs	Skimmers No.	Skimmers Type	Special Equipment and Notes	Staff
		First 6 hours	**5400**	**0**	**0**		**0**	**10**							**12**
2	3-360.1	Monterey State Beach	on-water response only; no shoreline protection feasible												

2	3-370.1	Monterey Harbor Entrance	2400				7	large Danforth, as needed	2			2 mooring weights with buoys	6
2	3-375.1	USCG Jetty in Monterey Bay	3000				3	large Danforth, as needed	2	1			6
4	3-330.1	Monterey Bay Dunes	on-water response only; no shoreline protection feasible										
5	3-380.1	Point Cabrillo	on-water response only; no shoreline protection feasible										
		7 - 18 hours	**0**	**2000**	**0**	**0**	**8**				**0**		**10**
10	3-345.1	Marina St. Beach	on-water response only; no shoreline protection feasible										
16	3-340.2	Salinas River Inlet		2000			8	4 Stakes & 4 Danforths	1				10
17	3-325.1	Salinas River State Beach	on-water response only; no shoreline protection feasible										
		19-24 hours	**3000**	**1600**		4200	**19**						**10**
19	3-305.1	Moss Landing Inlet	3000	1600	OS*	3000	13		1	1		Anchor posts or stakes	5
19	3-310.1	Elkhorn Slough			OS*	1200	6		1	1		Anchor posts or stakes	5
23	3-301.1	Zmudowski Beach St. Park	on-water response only; no shoreline protection feasible										

SHORELINE PROTECTION TABLE - CENTRAL COAST - PT BUCHON / MORRO BAY AREA 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt Type	Sorbent Boom	Anchoring Systems No. Kind	Boom Boats	Skiffs	Skimmers No. Type	Special Equipment and Notes	Staff
		First 6 hours	**8700**	**1000**	**0**	**5100**	**18**					**56**
2	4-310.2	Islay Creek		100			2 small anchors or stakes			1 SSS		4
2	4-315.1	Lion Rock	on-water response only; no shoreline protection feasible									
3	4-300.1	Morro Bay Sand Spit	on-water response only; no shoreline protection feasible									
4	4-150.1	Morro Rock	on-water response only; no shoreline protection feasible									
4	4-200.1	Morro Bay Inlet	2000				2 40 lb. Anchors	2		1 SFS/SPS		6
4	4-200.2	Morro Bay Inlet	2000				2 40 lb. Anchors	2		1 SSS/SPS		6
4	4-200.3	Morro Bay Inlet	3500				2 40 lb. Anchors	2		1 SFS/SPS		6
5	4-215.1	Morro Bay St. Park Marina	1200				2 40 lb. Anchors		2	1 SFS	fence posts	6
5	4-220.1	Morro Bay Marsh Habitat				5000			2	1 SFS	fence posts	6
5	4-225.1	Chorro Creek Inlet				50				1 SSS	fence posts	4
5	4-230.1	Los Osos Creek Inlet				50				1 SSS	metal stakes	4
5	4-235.2	Sweet Springs Marsh		~~50~~ 300			2 small anchors or stakes			1 SSS	fence posts	4
5	4-240.1	Cuesta by the Sea Inlet		200			2			1 SSS		4
6	4-130.1	Morro Strand State Beach - North	on-water response only; no shoreline protection feasible									
6	4-130.2	Morro Strand State Beach - North/Willow Creek		100			2 small anchors or stakes			1 SSS	small anchors, stakes, or fence posts	2
6	4-135.2	Torro Creek		300			2					4
6	4-140.1	Morro Strand State Beach - South	on-water response only; no shoreline protection feasible									
6	4-145.1	Morro Strand State Beach - Pismo Clam Preserve	on-water response only; no shoreline protection feasible									
		7 - 24 hours	**1000**	**600**	**0**	**0**	**6**					**16**
18	4-120.1	Cayucos Point & San Geronimo Creek	on-water response only; no shoreline protection feasible									
18	4-115.2	Villa Creek Inlet and Beach		300			2 small anchors or stakes			1 SSS		2
18	4-115.5	Villa Creek Inlet and Beach	on-water response only; no shoreline protection feasible									
18	4-120.1	Cayucos Point & San Geronimo Creek	on-water response only; no shoreline protection feasible									
18	4-120.3	Cayucos Point & San Geronimo Creek		100			2 small anchors or stakes			1 SSS		4
18	4-125.2	Cayucos Creek Inlet		200			2 small anchors or stakes			1 SSS		4
24	4-320.1	Diablo Canyon Pwr Plant	1000					2	2	SFS		6

SHORELINE PROTECTION TABLE - SANTA BARBARA CHANNEL / PT CONCEPTION 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt	Other Boom Type	Sorbent Boom	Anchoring Systems No.	Anchoring Systems Kind	Boom Boats	Skiffs	Skimmers No.	Skimmers Type	Special Equipment and Notes	Staff
		First 6 hours	**0**	**400**	**0**		**395**	**13**				**0**			**18**
2	4-567.1	Pt. Conception/Government Pt.	on-water response only; no shoreline protection feasible												
4	4-570.1	Damsite Canyon Creek		100			80	5						1 FE Loader, 3 culvert, 20 sandbags, 10 skakes, 1roll plastic, 1 stake driver, 20' construction fencing	5
4	4-572.1	San Augustine Creek					15							20 Sand Bags, 1 Roll Plastic, 3 Culverts, 15 Stakes, 1 hand tool	3
4	4-575.1	Arroyo El Bolito		100			100	4						1 FE Loader, 1 Roll Plastic, 3 Culverts, 20 Sand Bags, 15 Stakes, 1 stake driver, 10' construction fencing, 1 hand tool	5
5	4-580.1	Canada De Santa Anita (Creek)		200			200	4						1 FE Loader, 1 Roll Plastic, 3 Culverts, 20 Sand Bags, 15 Stakes, 1 stake driver, 10' construction fencing, 1 hand tool	5
		7-12 hours	**0**	**800**	**0**		**800**	**12**				**0**			**15**
8	4-585.1	Canada De Alegria		200			200	4						1 FE Loader, 1 Roll Plastic, 3 Culverts, 20 Sand Bags, 15 Stakes, 1 stake driver, 10' construction fencing, 1 hand tool	5
11	4-590.1	Canada Del Agua Caliente		200			200	4						1 FE Loader, 1 Roll Plastic, 3 Culverts, 20 Sand Bags, 15 Stakes, 1 stake driver, 10' construction fencing, 1 hand tool	5
11	4-601.1	Gaviota Creek		400			400	4						1 FE Loader, 1 Roll Plastic, 3 Culverts, 20 Sand Bags, 15 Stakes, 1 stake driver, 10' construction fencing, 1 hand tool	5
		13-24 hours	**0**	**400**	**0**		**400**	**8**				**0**			**10**
13	4-605.1	Canada Del Alcatraz & Cementario Cks						4						50 Sand Bags, 1 Roll Plastic, 3 Culverts, 1 hand tool	5
18	4-610.1	Refugio Creek		400			400	4						1 FE Loader, 1 Roll Plastic, 3 Culverts, 20 Sand Bags, 15 Stakes, 1 stake driver, 10' construction fencing, 1 hand tool	5

SHORELINE PROTECTION TABLE - PORT HUENEME RELEASE 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt	Other Boom Type	Sorbent Boom	Anchoring Systems No.	Anchoring Systems Kind	Boom Boats	Skiffs	Skimmers No.	Skimmers Type	Special Equipment and Notes	Staff
		First 6 hours	**5400**	**0**	**0**		**2500**	**16**				**0**			**12**
2	4-775.1	Channel Islands Harbor	3000				1500	8		2	2	1		(1) 20-yd waste bin, 1 portable oil storage tank	6
2	4-780.1	Port Hueneme	2400				1000	8		2	2	1		(1) 20-yd waste bin, 1 portable oil storage tank	6
		7 to 18 hours	**2000**	**3000**	**0**		**3000**	**27**				**1**			**30**
8	4-750.1	Santa Clara River Estuary		1500			1000	6						1 FE loader, 1 roll plastic, 40 sand bags, 6 culverts, 150 stakes, 3 stake drivers, 40' construction fencing, (1) 20 yd waste bin, 1 portable oil storage tank, 1 hand tool	10
9	4-747.1	Ventura Harbor	2000				1000	15		2	2	1		(1) 20-yd waste bin, 1 portable oil storage tank	10
10	4-783.1	Ormond Beach Wetlands & State Beach		1500			1000	6						1 FE loader, 1 roll plastic, 40 sand bags, 6 culverts, 150 stakes, 3 stake drivers, 40' construction fencing, (1) 20 yd waste bin, 1 portable	10
		19 - 24 hours	**0**	**1000**	**0**		**1000**	**6**				**0**			**7**
19	4-740.1	Ventura River Mouth		1000			1000	6			1			1 FE loader, 1 roll plastic, 40 sand bags, 6 culverts, 100 stakes, 3 stake drivers, 40' construction fencing, (1) 20 yd waste bin, 1 portable	7

SHORELINE PROTECTION TABLE - LA / LB HARBOR BREAKWATER 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt	Other Boom Type	Sorbent Boom	Anchoring Systems No.	Anchoring Systems Kind	Boom Boats	Skiffs	Skimmers No.	Skimmers Type	Special Equipment and Notes	Staff
		First 6 hours	**5400**	**0**	**0**		**0**	**9**							**10**
5	5-260.1	Alamitos Bay/Los Cerritos Wetlands	800							1					2
6	5-310.1	Anaheim Bay (Seal Beach NWL Refuge)	1500					4	Danforth 40lb	1					4
6	5-310.2	Anaheim Bay (Seal Beach NWL Refuge)	3100					5	Danforth 40lb	1					4
		7- 12 hours	**4200**	**0**			**200**	**8**							**10**
7	5-230.1	Middle Breakwater												On-water recovery/ART	
7	5-240.1	Long Beach Harbor Breakwater												On-water recovery/ART	
7	5-250.1	Golden Shore Marine Reserve	200				200								2
8	5-250.2	Golden Shore Marine Reserve	2000					4	Danforth 40lb	1					4
12	5-320.1	Bolsa Chica	2000					4	Danforth 40lb	1					4
		13 - 24 hours	**0**	**0**				**0**							
24	5-220.1	Los Angeles Harbor Breakwater												On-water recovery/ART	

SHORELINE PROTECTION TABLE - SAN DIEGO BAY AT MOUTH 8/2013

Protect by hour	Strategy or Site Number	Site/Strategy Name	Harbor Boom	Swamp Boom	Other Boom Amt	Other Boom Type	Sorbent Boom	Anchoring Systems No.	Anchoring Systems Kind	Boom Boats	Skiffs	Skimmers No.	Skimmers Type	Special Equipment and Notes	Staff
		First 6 hours	**6000**	**0**	**0**		**0**	**12**							**8**
3	6-400.6*	Shelter Island Deflection boom	3500					8	heavy anchor systems	2					4
4	6-400.7*	North Island Collection boom	2500					4		1					4
* up to 2000 ft of containment boom required to meet the 2 hour on-water containment requirement can be utilized															
		7 - 12 hours	**1700**	**0**	**0**		**0**	**11**							**7**
7	6-415.1	Navy Magnetic Silencing Facility	1500					3		1					3
12	6-420.1	Cross Bay Boom	2000					8	med weight anchor systems	2					4
		13 - 24 hours	**6000**	**6700**	**0**		**0**	**28**							**35**
16	6-430.2	USN Delta Beach	1500					6	light wt anchor systems	2					6
16	6-435.2	Paradise Marsh	500												
24	6-440.2	Sweetwater River NWLRefuge		6500				14	light wt anchor systems	2					6
24	6-450.2	Chula Vista Wildlife Reserve	4000					4	light wt anchor systems	2					4
24	6-455.2	South Bay NWL Refuge and Otay River		200				4	light wt anchor systems		1			close flood gates	4
24	6-460.2	Emory Cove Marsh												300 sand bags, 15 shovels and sand	15

SHORELINE PROTECTION TABLE - SAN DIEGO BAY AT CORONADO BRIDGE 8/2013

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom Amt	Other Boom Type	Sorbent Boom	Anchoring Systems No.	Anchoring Systems Kind	Boom Boats	Skiffs	Skimmers No.	Skimmers Type	Special Equipment and Notes	Staff

		First 6 hours	**10000**	**500**	**0**	**0**	**30**						**22**
2	6-420.1*	Cross Bay Boom	2000				8		2				4
3	6-430.2	USN Delta Beach	1500				6	light wt anchor systems	2				6
4	6-435.2	Paradise Marsh		500			2	light wt anchor systems	2				6
5	6-440.2	Sweetwater River NWLRefuge	6500				14	light wt anchor systems	2				6
* up to 2000 ft of containment boom required to meet the 2 hour on-water containment requirement can be utilized													
		7 - 12 hours	**1500**	**0**	**0**	**0**	**8**						**23**
7	6-455.2	South Bay NWL Refuge and Otay River	500				4	light wt anchor systems		1			4
8	6-460.2	Emory Cove Marsh										300 sand bags, shovels and sand	15
10	6-400.10	Harbor Island Marina	1000				4	light wt anchor systems	1				4
		13 - 24 hours	**3000**	**0**	**0**	**0**	**10**						**11**
18	6.400.9	Commercial Basin	1000				4	light wt anchor systems	1				4
20	6-400.8	Shelter Island Marina	500				3	light wt anchor systems	1				4
24	6-415.1	Navy Magnetic Silenceing Facility	1500				3	light wt anchor systems	1				3

Small Harbor BAP Shoreline Requirements for Small Vessel Response Plans 8/2013

Harbor	deploy by hour	Strategy* or Site Number	Site Name / location	Harbor Boom*	Swamp Boom*	Sorbent Boom*	Anchor Systems* No.	Kind	Boom* Boats	Skiffs	Skimmers No.	Type*	Special Equipment and Notes	Staff
Cresent City	3	as needed	Cresent City	1000		200	4	Danforth anchoring systems	1				oil sweep can be substituted for sorbent boom	3
Shelter Cove	3	as needed	Shelter Cove		1000	200	4	Danforth anchoring systems		1			oil sweep can be substituted for sorbent boom	3
Fort Bragg	3	as needed	Noyo Harbor		1000	200	4	Danforth anchoring systems		1			oil sweep can be substituted for sorbent boom	3
Albion	3	as needed	Albion		1000	200	8	Danforth anchoring systems		1			oil sweep can be substituted for sorbent boom	3
Bodega Bay	3	2-118.2	Bodega Harbor	1800			12	22+ lb danforths	2	1			shoreside skimmer	8
	3	as needed	Bodega Harbor		1000	200	4	anchoring systems						
Bolinas	3	2-146.1	Bolinas Lagoon		3000	200	8	4x12+# anchors + 4 stakes		3				6
Pillar Point	3	2-162.4	Pillar Point Marsh & Denniston Creek	500			9	2/50+ & 7/22 danforths + chains	1	1				5
	3	as needed	Pillar Point Marsh & Denniston Creek		1000	200	4	anchoring systems						
	7	2-162.4	Pillar Point Marsh & Denniston Creek								1	SPS		
Santa Cruz														
	3	3-220.1	Santa Cruz Harbor Entrance	2500			7	Danforth anchoring systems	3		1	SPS	skimmer with 3 staff	11
	7	3-210.1	San Lorenzo River Inlet		800	400	9	Danforth anchoring systems				SSS	600' 6" PVC pipe or berm	20
Moss Landing	3	as needed			1000	200	4	Danforth anchoring systems		1				3
	7	3-305.1	Moss Landing Inlet	5500	1600	2000 OS	10	7 Stakes & 3 Danforth	4		3	SSS	Share VSW boom boats + Elkhorn Slough crew.	20
	7	3-310.1	Elkhorn Slough		6000	12000 OS	8	4 Stakes & 4 Danforth as needed	2				Remark: backup to Moss Landing - one or more chevrons. VSW boomboat	10
Morro Bay	3	4-200.2	Morro Bay Inlet	2000			2	40 lb. Anchors	2		1	SFS		6
	7	4-225.1	Chorro Creek Inlet			50	2	small anchors or stakes			1	SSS	fence posts	4
	7	4-230.1	Los Osos Creek Inlet			50	2	small anchors or stakes			1	SSS		4
	7	4-235.2	Sweet Springs Marsh		300		2	small anchors or stakes			1	SSS	fence posts	4
	7	4-240.1	Cuesta by the Sea Inlet		200		2	small anchors or stakes			1	SSS		4
Port San Luis / Avilla	3	4-335	Port San Luis / Avilla	on-water response only; no									on-water response only; no shoreline protection feasible	
Santa Barbara Harbor	3	4-665.1	Santa Barbara Harbor	4000	0	2500	2	anchoring systems	2	1	1		(1) 20 yd waste bin, 1 portable oil storage tank	10
	7	4-670.2	Mission Creek / Laguna Channel		1600	1600	8	anchoring systems					160 stakes, 2 stake drivers, (1) 4wd vehicle	8
	7	4-672.2	Sycamore Creek and Andre Clark Bird Refuge		400	400	8	anchoring systems					160 stakes, 2 stake drivers, (1) 4wd vehicle	8
Ventura Harbor	3	4-747.1	Ventura Harbor	2000		1000	15	anchoring systems	2	2	1		(1) 20 yd waste bin, 1 portable oil storage tank	10
	3	4-750.1	Santa Clara River estuary		1500	1000	6	anchoring systems		~~1~~			1 FE loader, 1 roll plastic, 6 culverts, 40 sand bags, 150 stakes, 3 stake drivers, 40' construction fencing, (1) 20 yd waste bin, 1 portable oil storage tank, 1	10
Channel Islands Harbor	3	4-775.1	Channel Islands Harbor	3000		1500	8	anchoring systems	2	2	1		(1) 20 yd waste bin, 1 portable oil storage tank	6
Marina Del Rey	3	as needed	Marina Del Rey		1000	200	3	anchoring systems	1					3
	3	5-140.1	Ballona Creek	500			1	40 lb Danforth anchoring systems	1					4
	3	5-150.1	Ballona Lagoon Wetlands										Close Tidal Gates.	1
	3	5-150.2	Ballona Wetlands										Block Culvert. Sandbags/Inflatable Plug	2
King Harbor	3	as needed	King Harbor		1000	200	4	anchoring systems		1				3
Dana Point	3	as needed	Dana Point Harbor		1000	200	4	anchoring systems		1				2
	3	5-390.2	San Juan Creek										1000' of Filter Barrier Fencing and posts.	10
Newport Bay Harbor	3	5-360.1	Lower Newport Bay	2000			5	anchoring systems	1					4
	7	5-365.1	Upper Newport Bay	1000			4	anchoring systems	1					4
Oceanside/Carlsbad	3	as needed	Oceanside & Carlsbad harbors		1000		4	anchoring systems						3
	7	6-145.2	Santa Margarita River	3000			8	anchoring systems	2					8
Mission Bay	3	6-200.1	Mission Bay entrance	800			2	anchoring systems			1			4
	3	6-200.2	Mission Bay entrance	700			2	anchoring systems			1			3
	3	6-200.3	Mission Bay entrance	400			1	anchoring systems			1			2
	7	as needed	Mission Bay		5000		12	anchoring systems		2				4

Glossary of Terms Used in the BAP Shoreline Protection Tables

August 29, 2013

Anchoring Systems – Anchoring systems refer to anchors, stakes and other devices necessary to secure booms and other mechanically deployed protection measures. When used to identify anchors, whether expressly stated or not, anchoring systems must be sufficient to hold boom in the aggressive currents such as are common to SF Bay and other California estuaries. Typically systems are presented as a number of anchors and minimal weight (e.g., 3/12+ - means three anchors of a minimum of 12 lbs each) with at least an equal weight of anchor chain weight whether specified or not; without substantial anchor chain weight, anchors will not hold. To insure successful anchoring, the anchoring system should include: anchors with anchor buoys to control placement, anchor chains which equal or exceed the weight of anchors, enough line to produce adequate scope to hold anchors (rule of thumb is 3:1 (line to depth), but 5-7:1 for high current areas), and a crown buoy between anchor line and boom to keep the anchor from sinking the boom under strong currents.
BBoat – see Boom Boat
Boom Boats - a boat suitable for transporting, towing and deploying large amounts of boom, usually crewed with a helmsman and two crew for deployment. Numbers of such boats usually are referenced in terms of boom boat equivalent (BBE). BBE is the capability of a vessel to transport and deploy 600 feet of Harbor Boom or 1800 ft of Swamp Boom. Actual vessels may be capable of transporting greater or lesser amounts of boom. Boom boats must be capable of grounding without sustaining damage. (Also see Shallow Water Boom Boats and Very Shallow Water Boom Boats.)
Danforth - refers to “danforth anchors” with chain. Northill anchors and other anchor types which “dig in” are equivalent.
FELoader – Front-end-loader or skip-loader: mechanical equipment with mechanical scoop or bucket for moving sediment.
GNOME – General NOAA Oil Spill Modeling Environment
Harbor Boom - an inland waters type boom (greater than 18" and less than 42" overall (flotation and skirt)) of a curtain boom design (skirted boom with solid flotation). Early strategies attempted to clarify boom size by indicating flotation and skirt as follows: 9X9+ which indicated a boom with at least 9" of flotation and 9" of skirt, and would now be interpreted as at least 18" overall. This boom type typically has strength members (steel cable and chain) in both upper and lower margins.
Protect By Hour – the hour after the release when the site must be protected to insure that the site protection is in place before the oil is likely to impact. Generally, this time is about an hour prior to impact, but may be otherwise due to uncertainty of impact time.
Other Boom – is any boom other than harbor boom, swamp boom, or sorbent boom. This term is used to simplify equipment tables. A type designator should be used as well as a length. Type designators include:
TB or TBB – tidal barrier boom or Texas barrier boom
OB – ocean boom
OS – oil snare
SWEP – oil sweep: sorbent pads in continuous strips
Shallow Water – less than three feet of water
Shallow Water Boom Boats - a boom boat capable of working in three feet of water or less, and should be able to withstand stranding without sustaining damage.
Skiff - a small two person craft able to operate in 3 foot waves or larger and capable of delivering personnel and equipment to shores.
Skimmer – refers to a skimming system. A skimming system includes a collection device (such as a weir, rope-mop, drum, or other skimming design to separate oil from the aqueous environment), storage for collected material, power supply to power such a system, and all the hoses and connectors necessary for system operation. Types of skimmers refer to the configuration of the deployment of such systems rather than a particular device or manufacturer.
SFS - stationary floating skimmer - a floating platform supporting a skimmer and storage.
SPS - self-propelled skimmer - a small to medium sized skimmer with its own propulsion and storage.
SSS - shore side skimmer, includes a skimming unit, such as a rope-mop or weir skimmer and its support pack and a storage container such as a vacuum truck, baker tank, or other tank.
SWS – Shallow Water Skimmers - Skimmers capable of operating in less than two feet of water.
Towed Skimming Array - a skimming system with two boats towing collection booms connected to a skimmer (in a “V” formation) to funnel oil to the skimmer and may be referred to with the acronyms TSA and VSA.
TSA – (towed skimming array as above) – a skimming array with two boats towing collection booms which funnel oil to a skimming system, of either SPS or SFS design.
VSA – “V”-Skimming Array -Same as TSA

OSRV – Oil Spill Response Vessel. A large **self-powered** vessel dedicated to oil spill skimming and response
VOSS – Vessel of Opportunity Skimming System – Usually moderate to large vessel which can be equipped with a skimming device and storage to create a mobile on-water skimmer capable of operating in local conditions and waters.
Sorbent Boom – sorbents in a boom or sausage-like construction with or without a skirt.
Strategy or Site Number – deployments are listed in the Area Contingency Plan by a site number or as a strategy number which includes the site number.
Swamp Boom - a river boom type (less than 18" overall, usually less than 12" overall) of a curtain boom design. Usually this boom has much lighter strength members, commonly only a single chain in the skirt. This boom is suitable for modest currents and locations without waves.
VSW – very shallow water
Very Shallow Water – less than two feet of water
Very Shallow Water Boom Boats - a boom boat capable of working in two feet of water or less, and should be able to withstand stranding without sustaining damage.