

SHORELINE PROTECTION TABLES (SP TABLES) FOR VESSEL TRAFFIC IN CALIFORNIA'S MARINE WATERS

(Tables Dated May 26, 2016)

PURPOSE AND SCOPE

The Shoreline Protection Tables (SP Tables) set for the 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 any time 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.).

CALIFORNIA SHORELINE PROTECTION TABLES

Proposed Edits to Current Shoreline Protection Tables

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom		Sorbent Boom	Anchoring Systems		Boom Boats	Skiffs	Skimmers		Special Equipment and Notes	Staff	Type of or reason for change	
					Amt	Type		No.	Kind			No.	Type				
13	1-478.1	Elk Creek	on-water response only; no shoreline protection feasible														
16	1-472.2	Navarro River St Pk <u>Navarro River State Park</u>	1000					12	22 lb+ Danforth anchors		2				8	Spell out name for consistency w ACP1 (Navarro River State Park)	
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	<u>Van Dam St Pk and Little River</u> <u>Van Damme State Park and Little River</u>	100		100	OS		4	22 lb+ Danforth anchors					3	Spell out name for consistency w ACP1 (Van Damme State Park and Little River)		

POINT REYES

First 6 hours			3000	0	50		100	15-20		4		-			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	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		10	8	-			84	Reflects updates to ACP	
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	2-219.42	Duxbury Reef					5000								4		
14	2-198.1	Pt. Reyes Beach	on-water response only; no shoreline protection feasible								4					Reflects updates to ACP	
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														

SOUTH SAN FRANCISCO BAY / ANCHORAGE 9

First 6 hours			8800	300	0		900	23		10	4	-			39	Reflects updates to ACP
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		1	3	-			8	Reflects updates to ACP
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		
13-24 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	

CALIFORNIA SHORELINE PROTECTION TABLES

Proposed Edits to Current Shoreline Protection Tables

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom		Sorbent Boom	Anchoring Systems		Boom Boats	Skiffs	Skimmers		Special Equipment and Notes	Staff	Type of or reason for change
					Amt	Type		No.	Kind			No.	Type			
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	
CENTRAL SAN FRANCISCO BAY																
First 6 hours			12900	0	0		0	36		11	7	0			45	Reflects updates to ACP
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		6	5	1			40	Reflects updates to ACP
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*	2					9	
9	2-236.2	Pt. Diablo to Lime Point				2000			OB*	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			8300	250	0		1550	25		8	2	-			31	Reflects updates to ACP
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	
SAN PABLO BAY GEOGRAPHIC RESPONSE AREA 5																
First 6 hours			8500 10000	1200	0		900	41		9	5	-			35	Reflects updates to ACP
3	2-452.2	Richmond Eelgrass Beds	2500 4000					6	22# + chain	2	1				6	Per 2014 ACP
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	
7-24 hours			8400	4900	0		6000	38		7	2	-			25	Reflects updates to ACP
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		7	2	-			24	Reflects updates to ACP
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	
SUISUN BAY GEOGRAPHIC RESPONSE AREA 6																
First 6 hours			9500 9400	3450 2700	0		5100 5850	104		12	12	-			56	Reflects updates to ACP
2	2-605.2	Hastings Slough & Point Edith Marshes	2400					6	5/22#+/danforths + 20'chain	3					9	

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Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom		Sorbent Boom	Anchoring Systems		Boom Boats	Skiffs	Skimmers		Special Equipment and Notes	Staff	Type of or reason for change	
					Amt	Type		No.	Kind			No.	Type				
7 - 24 hours			1000	600	0		0	6		2	2	3		16	Reflects updates to ACP		
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		
SANTA BARBARA CHANNEL / POINT CONCEPTION																	
First 6 hours			0	400	0		395	13				-			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, 1 roll plastic, 1 stake driver, 20' construction fencing, 1 hand tool	5	Reflects updates to ACP	
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				-			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	400 700	0		400 740	8				-			10 14	Reflects updates to ACP	
13	4-605.1	Canada Del Alcatraz & Cementario Cks					40	4						50 Sand Bags, 1 Roll Plastic, 3 Culverts, 1 hand tool	5	Reflects updates to ACP	
15	4-607.1	Arroyo Hondo Prserve and Creek		300			300	2						(1) 20-yd waste bin, 1 portable oil storage tank	4	Reflects updates to ACP, new site added	
18	4-610.1	Refugio Creek		400			400	-4 2						1 FE Loader, 1 Roll Plastic, 3 Culverts, 20 Sand Bags, 15 Stakes, 1 stake driver, 10' construction fencing, 1 hand tool (1) 20-yd waste bin, 1 portable oil storage tank	5	Reflects updates to ACP	
PORT HUENEME RELEASE																	
First 6 hours			5400	0	0		2500	16		4	4	0 2			12	Reflects updates to ACP	
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	3000 4500	0		3000	27 22		2	2	1			30	Reflects updates to ACP	
8	4-750.1	Santa Clara River Estuary		1500 3000			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, 2 ATVs	10	Reflects updates in ACP	

CALIFORNIA SHORELINE PROTECTION TABLES

Proposed Edits to Current Shoreline Protection Tables

Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom		Sorbent Boom	Anchoring Systems		Boom Boats	Skiffs	Skimmers		Special Equipment and Notes	Staff	Type of or reason for change
					Amt	Type		No.	Kind			No.	Type			
9	4-747.1	Ventura Harbor	2000 3000				1000	45	10	2	2	1	-	(1) 20-yd waste bin, 1 portable oil storage tank	10	Reflects updates in ACP
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 oil storage tank, 1 hand tool	10	
19 - 24 hours			0	1000	0		1000	6			1	-			7	Reflects updates to ACP
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 oil storage tank, 1 hand tool	7	
LOS ANGELES / LONG BEACH HARBOR BREAKWATER																
First 6 hours			5400	0	0		0	9		3		-			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		2		-			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	<u>Golden Shore Marine Reserve</u>	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	-	
SAN DIEGO BAY AT MOUTH																
First 6 hours			6000	0	0		0	12		3		-			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	
<i>* up to 2000 ft of containment boom required to meet the 2 hour on-water containment requirement can be utilized</i>																
7 - 12 hours			1700 3500	0	0		0	11		3		-			7	Updated totals
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 11900	6700	0		0	28 34		10	1	-			35 31	Updated totals
16	6-430.2 6-465.2	USN Delta Beach	1500					6	light wt anchor systems	2					6	Site Number changed in the 2014 ACP
16	6-435.2	Paradise Marsh	500	-	-	-	-	2	light wt anchor systems	2	-	-	-	-	2	Correction to the 2013 table information
24	6-440.2	Sweetwater River NWLRefuge	6500	6500				14	light wt anchor systems	2					2	Reflects updates to ACP
24	6-465.2	<u>J-Street Marsh</u>	2500					4	light wt anchor systems	2					6	Correction to the 2013 table information
24	6-450.2	Chula Vista Wildlife Reserve	4000 400					4	light wt anchor systems	2					4	Correction to the 2013 table information
24	6-455.2	South Bay NWL Refuge and Otay River	500	200				4	light wt anchor systems		1			close flood gates	4	SSEP driven changein 2014 ACP
24	6-460.2	Emory Cove Marsh												300 sand bags, 15 shovels and sand	15	
SAN DIEGO BAY AT CORONADO BRIDGE																
First 6 hours			10000 10500	500	0		0	30		8		-			22	Correction to the 2013 table information
2	6-420.1*	Cross Bay Boom	2000					8	-	2					4	
3	6-430.2 6-465.2	USN Delta Beach	1500					6	light wt anchor systems	2					6	Site Number changed in the 2014 ACP

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Protect by hour	Strategy or Site Number	Site Name	Harbor Boom	Swamp Boom	Other Boom		Sorbent Boom	Anchoring Systems		Boom Boats	Skiffs	Skimmers		Special Equipment and Notes	Staff	Type of or reason for change
					Amt	Type		No.	Kind			No.	Type			
4	6-435.2	Paradise Marsh	500	500				2	light wt anchor systems	2					6	Correction to the 2013 table information
5	6-440.2	Sweetwater River NWLRefuge	6500	-				14	light wt anchor systems	2					6	
<i>* up to 2000 ft of containment boom required to meet the 2 hour on-water containment requirement can be utilized</i>																
7 - 12 hours			1500	0	0		0	8		4	1	-			23	Reflects updates to ACP
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	

**SHORELINE REQUIREMENTS FOR SMALL VESSEL RESPONSE PLANS
Small Harbor Best Achievable Protection (BAP)**

Proposed Edits to Current Shoreline Protection Tables

Harbor	Deploy by Hour	Strategy or Site Number	Site Name/Location	Harbor Boom	Swamp Boom	Sorbent Boom	Anchor Systems*		Boom* Boats	Skiffs	Skimmers		Special Equipment and Notes	Staff	Type of or reason for change
							No. /	Kind			No. /	Type			
Crescent City	3	as needed	Crescent 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	fence posts	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	fence posts	4	
Port San Luis / Avilla	3	4-335	Port San Luis / Avilla	on-water response only; no shoreline protection feasible									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	14 10	Reflect Updates to ACP
	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 3000		1000	1510	anchoring systems	2	2	1		(1) 20 yd waste bin, 1 portable oil storage tank	10	Reflect Updates to ACP
	3	4-750.1	Santa Clara River estuary		1500 3000	1000	6	anchoring systems		4			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 hand tool, 2 ATV.	10	Reflect Updates to ACP
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	
Port Hueneme	3	4-780.2	Port Hueneme	2400		1000	8			4		ow	oil storage bin or vac truck, waste bin, 4000' line	8	
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, Del Rey Lagoon										Close Tidal Gates.	1	Reflects Small Vesel Response Plan
	3	5-150.2	Ballona Wetlands, Del Rey Lagoon										Block Culvert. Sandbags/Inflatable Plug	2	Reflects Small Vesel Response Plan
King Harbor	3	as needed	King Harbor		1000	200	4	anchoring systems		1			3		

**SHORELINE REQUIREMENTS FOR SMALL VESSEL RESPONSE PLANS
Small Harbor Best Achievable Protection (BAP)**

Proposed Edits to Current Shoreline Protection Tables

Harbor	Deploy by Hour	Strategy or Site Number	Site Name/Location	Harbor Boom	Swamp Boom	Sorbent Boom	Anchor Systems*		Boom* Boats	Skiffs	Skimmers		Special Equipment and Notes	Staff	Type of or reason for change
							No.	Kind			No.	Type			
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 1600			5	anchoring systems	1					4	Reflects Small Vesel Response Plan
	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 6.300.1	Mission Bay entrance	800			2	anchoring systems	-		1			4	
	3	6-200.2 6.300.2	Mission Bay entrance	700			2	anchoring systems		-	1			3	
	3	6-200.3 6.300.3	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
May 26, 2016

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.

GLOSSARY OF TERMS (Cont'd)

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.