

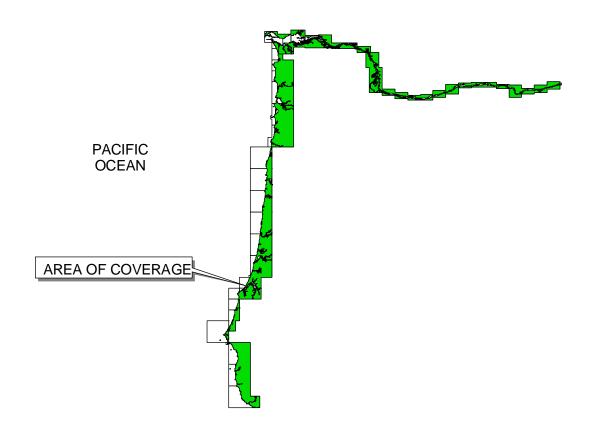
COOS BAY, OREGON GEOGRAPHIC RESPONSE PLAN (GRP)











Spill Response Contact Sheet

	Spill Response	Contact Sheet	
Required No	otifications for Haz	ardous Substance or Oil Spills	
USCG National Response Center			(800) 424-880
In Oregon: Department of Emergency Manage	ement		(800) 452-031
In Washington:			(000) 650 500
Emergency Management Division Department of Ecology			(800) 258-599 (360) 407-630
U.S. Coast Guard			
National Response Center	(800)424-8802	Response Contractors	
Marine Safety Office Puget Sound:		Fred Devine	(503) 283-528
Watchstander	(206) 217-6232	Global Diving	(206) 623-062
Safety Office	(206) 217-6232	NRC Environmental	(503) 283-115
Marine Safety Office Portland	, ,	US Environmental Services	(866) 876-774
Watchstander	(503) 240-9301		(000) 010 11
Safety Office	(503) 240-9379	Washington State	
Pacific Strike Team	(415)883-3311	Department of Ecology:	
District 13:	(415)005 5511		(260) 407 600
MEP/drat	(206) 220-7210	Headquarters	(360) 407-690
Command Center	(206) 220-7210	SW Regional	(360) 407-630
Safety Officer	(206) 220-7021	NW Regional	(425) 649-700
Public Affairs	(206) 220-7235	Central Regional	(509) 575-249 (500) 456-202
Vessel Traffic Service (VTS)	(206) 217-6050	Eastern Regional	(509) 456-292
vesser traine service (v15)	(200) 217-0030	Department of Emergency Management	(252) 512 700
E	(EDA)		(253) 512-700
Environmental Protection Ager			(800) 258-599
Region 10 Spill Response	(206)553-1263		
Washington Ops Office	(206) 753-9083	Oregon State	
Oregon Ops Office	(503) 326-3250	Department of Environmental Quality	I
Idaho Ops Office	(208) 334-1450	Headquarters (Portland)	(503) 229-515
RCRA/CERCLA Hotline	(800) 424-9346	Northwest Region (Portland)	(503) 229-526
Public Affairs	(206) 553-1203	Eastern Region (Bend)	(541) 388-614
		Eastern Region (Pendleton)	(541) 276-406
National Oceanic Atmosphere		Western Region (Coos Bay Branch)	(541) 269-272
Administration		Western Region (Eugene)	(541) 686-783
Scientific Support Coordination	(206) 526-6829	Western Region (Medford)	(541) 776-601
Weather	(206) 526-6087	Western Region (Salem)	(503) 378-824
· · · · · · · · · · · · · · · · · · ·	()	Emergency Management	(503) 378-637
Canadian		(In State)	(800) 452-031
	(604) 666 6011	(In State)	(800) OILS91
Marine Emergency Ops	(604) 666-6011	Stop Oregon Litter & Vandalism	(503) 647-985
Environmental Protection B.C. Environment	(604) 666-6100		
B.C. Environment	(604) 356-7721	Boldface type are 24-hour numbers	}
Department Of Interior			
Environmental Affairs	(503) 231-6157		
U.S. Navy			
Naval Shipyard	(206) 476-3466		
Naval Base Seattle	(206) 526-3225		

(206) 526-3225

(202) 695-0231

(206) 764-3754

Naval Base Seattle

Supervisor of Salvage

Army Corps Of Engineers Hazards to Navigation

HOW TO USE THIS GEOGRAPHIC RESPONSE PLAN

Purpose of Geographic Response Plan (GRP)

This plan prioritizes resources to be protected and allows for immediate and proper action. By using this plan, the first responders to a spill can avoid the initial confusion that generally accompanies any spill.

Geographic Response Plans are used during the emergent phase of a spill which lasts from the time a spill occurs until the Unified Command is operating and/or the spill has been contained and cleaned up. Generally this lasts no more than 24 hours. The GRPs constitute the federal on-scene coordinators' and state on-scene coordinators' "orders" during the emergent phase of the spill. During the project phase the GRP will continue to be used, but with input from natural resource trustees.

Strategy Selection

Chapter 4.2 of the GRP contains complete strategy descriptions in matrix form and accompanying maps. The strategies depicted in Chapter 4.2 will be implemented after reviewing on scene information including tides, currents, weather conditions, oil type, initial trajectories, etc. Response priorities for specific scenarios are provided in Chapter 4.3.

It is important to note that strategies rely on the trajectory of the spill. A booming strategy listed as a high priority would not necessarily be implemented if the spill trajectory and location did not warrant action in that area.

Chapter 6 outlines the sensitive resources requiring protection and the seasonality of their sensitivity. This information must be consulted before strategies are implemented, as there may be flight restrictions associated with a resource. Flight restriction information is also found in chapter 6.

Standardized Response Language

In order to avoid confusion in response terminology, this GRP uses strategy names defined in Appendix A (e.g. diversion booming, exclusion booming).

Response Equipment

A table outlining equipment availability and response times is being developed for this geographic response plan. In the interim, strategies will be deployed in the order equipment arrives on scene and as directed/selected by the on-scene coordinator.

Record of Changes

Date	Change Number	Summary of Changes
1 August 1995	Original Release	v g
1 June 1996	1 (Complete reprint)	Editing changes. Revised strategies. Data added to chapter six.
1 November 1997	2 (Page changes)	Editing changes. Corrected telephone numbers. Added text to section 6.4.
1 December 1999	3 (Page changes)	Updated Contact Sheet and Risk Assessment (2.6). Renumbered strategies (Ch 4). Added Archeological sites (6.6), Commercial Aquaculture (6.9), and Shellfish (Fig. 6-6).
1 April 2000	4 (Page changes)	Created new chapter four maps. Added Lat/Lon to Ch 4 Table Locations.
1 December 2004	5 (Page changes)	Deleted "GRPs only address protection of sensitive public resources." Updated DEQ logo and contact sheet.

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6

Coos Bay Geographic Response Plan Table of Contents

1. Introduction: Scope of this Project	1-1
2. Site Description	2-1
2.1 Physical Features	2-1
2.2 Hydrology	2-1
2.3 Currents and Tides	2-1
	2-2
	2-2
	2-2
	3-1
	3-1
	4-1
•	4-1
	4-3
Table 4-1. South Coos Bay Protection/Collection	n Strategies Information4-5
Figure 4-1. South Coos Bay Protection/Collection	on Options4-7
Table 4-2. North Coos Bay Protection/Collectio	n Strategies Information4-9
Figure 4-2. North Coos Bay Protection/Collection	on Options4-11
Table 4-3. East Coos Bay Protection/Collection	Strategies Information4-13
Figure 4-3. East Coos Bay Protection/Collection	1 Options4-15
4.3 Protection/Collection Priorities for Coos Bay	Scenarios4-17
Table 4-1. Oil moving toward South Slough, Inc	oming tide. (Scenario 1)4-17
Table 4-2. Oil moving toward Port Docks, Incon	ning tide. (Scenario 2)4-17
Table 4-3. Oil spilled at Port DocksOutgoing ti	de. (Scenario 3)4-18
5. Shoreline Countermeasures	5-1
5.1 Chapter Overview	5-1
5.2 Shoreline Type Maps	5-1
5.3 Oil Countermeasure Matrix	5-1
Figure 5-1. South Coos Bay Shoreline Types	5-2
Figure 5-2. North Coos Bay Shoreline Types	5-3
Figure 5-3. East Coos Bay Shoreline Types	5-4

6.	S	ensitive Resource/Wildlife Flight Restriction Information	6-1
	6.1	Chapter Overview/Sensitive Resource Description	6-1
	6.2	Fisheries	6-1
	6.3	Wildlife	6-1
	6.4	Marine Mammals	6-1
	6.5	Shorebirds, Waterfowl, and Raptors	6-1
	6.6	Archeological Sites	6-1
	6.7	Flight Restriction Maps	6-2
	6.8	Wildlife Resource/Flight Restriction Tables	6-2
	6.9	Commercial Aquaculture	6-3
	T	able 6-1 Wildlife Resource/Flight Restriction Table	6-4
	T	able 6-2 Wildlife Resource/Flight Restriction Table	6-5
	T	able 6-3 Wildlife Resource/Flight Restriction Table	6-6
	F	igure 6-1. Seabirds	6-7
	F	igure 6-2. Waterfowl	6-8
	F	igure 6-3. Mammals	6-9
	F	igure 6-4. Nests	6-10
	F	igure 6-5. Shorebirds	6-11
	F	igure 6-6. Shellfish	6-12
7.	L	ogistical Information	7-1
	T	able 7-1, Logistical Information	7-1
Aj	ppen	ndices	.A-1
	App	endix A: Summary of Protection Techniques	.A-1
	App	endix B: Geographic Response Plan Contributors	. B-1
	App	endix C: Geographic Response Plan Comments/Corrections/Suggestions	. C-1

Coos Bay Geographic Response Plan Table of Figures

Figure 3-1	. Coos Bay Reference Map	3-1
Figure 4-1	. South Coos Bay Protection/Collection Options	4-7
Figure 4-2	. North Coos Bay Protection/Collection Options	4-11
Figure 4-3	. East Coos Bay Protection/Collection Options	4-15
Figure 5-1	. South Coos Bay Shoreline Types	5-2
Figure 5-2	North Coos Bay Shoreline Types	5-3
Figure 5-3	. East Coos Bay Shoreline Types	5-4
Figure 6-1	. Seabirds	6-7
Figure 6-2	. Waterfowl	6-8
Figure 6-3	. Mammals	6-9
Figure 6-4	. Nests	6-10
Figure 6-5	. Shorebirds	6-11
Figure 6-6	. Shellfish	6-12

Coos Bay, Oregon

GEOGRAPHIC RESPONSE PLAN

1. Introduction: Scope of this Project

Geographic Response Plans are intended to help the first responders to a spill avoid the initial confusion that generally accompanies any spill. They prioritize resources to be protected and allow for immediate and proper action.

GRPs are developed for marine waters of Washington and Oregon State, the Columbia River, and the inland areas of Washington, Oregon and Idaho. They are prepared through the efforts of the Washington Department of Ecology, Oregon Department of Environmental Quality, Idaho State Emergency Response Commission, the U.S. Coast Guard, and the Environmental Protection Agency.

GRPs are developed through workshops involving federal, state, and local oil spill emergency response experts, representatives from tribes, industry, ports, environmental organizations, pilots and response contractors. Workshop participants identify resources which require protection, develop operational strategies, and pinpoint logistical support.

The first goal of a GRP is to identify resources, physical features, hydrology, currents and tides, winds and climate that may affect response strategies. After compiling this information, sensitive resources are identified.

Secondly, response strategies are developed based on the sensitive resources noted, hydrology, and climatic considerations. Individual response strategies identify the amount and type of equipment necessary for implementation. The response strategies are then applied to likely spill scenarios for oil movement, taking into account factors such as wind and tidal conditions. Finally, additional logistical support is identified, including:

- Location of operations center for the central response organization;
- Local equipment and trained personnel;
- Local facilities and services and appropriate contacts for each;
- Response times for bringing equipment in from other areas.

By using this plan as a guideline, the first responders to a spill can avoid the initial confusion that generally accompanies any spill. This plan prioritizes resources to be protected and allows for immediate and proper action.

1-1 1 June 1996

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1-2 1 June 1996

2. Site Description

The Coos Bay Estuary is located on the southern Oregon coast approximately 212 miles south of the Columbia River and about 124 miles north of the California border.

2.1 Physical Features

Coos Bay is the second largest estuary in Oregon accounting for about 27 percent of the state's total estuarine resources. Its surface area is 10,973 acres at high tide and 5,810 acres at low tide. Tidelands cover approximately 4,569 acres including 2,738 acres of tidal marsh and 1,400 acres of eelgrass beds.

The natural environment of the estuary supports a tremendous diversity of flora and fauna. The extensive shallow tidal flats provide excellent habitat for a variety of shellfish and important feeding and spawning areas for some 65 species of fish. The large beds of eelgrass and the shallow protected bays attract tremendous numbers of waterfowl providing the best resting area in the southern Oregon portion of the Pacific Coast flyway. Of particular biological importance is the South Slough National Estuarine Research Reserve, a pristine area of undisturbed tidal marshes and tide flats which furnishes essential habitat for a multitude of organisms. Commercially important activities such as clam harvesting, oyster culture, salmon aquaculture, fisheries and the fish processing industry are directly dependent on a natural productivity of the bay. In addition, natural resources support extensive recreational activities such as fishing, boating, sightseeing, clamming, crabbing, and nature viewing which enhance the local quality of life and attract tourists to the area.

2.2 Hydrology

Coos Bay is a highly complex system composed of numerous sloughs and bays and some thirty tributaries, the major one being the Coos River. The bay drains a total area of 605 square miles and yields 2.2 million acre feet of fresh water annually.

2.3 Currents and Tides

The tides of Coos Bay are of the mixed semi-diurnal type with paired highs and lows of unequal duration and amplitude. The mean tidal range at the entrance is 6.7 feet, the extreme high is 10.5 feet and the extreme low minus 3 feet. The tidal range increases upstream to the city of Coos Bay where the mean range is 6.9 feet. The time difference between peak tides at the entrance and Coos Bay is about 40-90 minutes.

Currents resulting from tidal action range up to a predicted 6.0 feet per second at the entrance. In the shipping channel, currents range from 1 to 4 feet per second with the strongest currents occurring in the lower bay. Maximum ebb current velocities are somewhat greater than maximum flood current velocities particularly during the winter months when river runoff is high. Strong tidal flows are found at the entrances to all the bays and sloughs in the estuary particularly South Slough, North Slough, and Haynes Inlet where currents typically range from 1 to 3 feet per second.

2.4 Winds

Coos Bay experiences strong northwest and southeast winds during the winter months and moderate to strong north to northwesterly winds in the summer. The strongest winds occur during the winter months from ocean storms generated primarily in the south. Wind generated waves will be highest when the fetch is longest. Consequently, southwest and southeast winds can be expected to produce significant wave activity in the northern ends of the bay, the northeast side of North Spit, Jordon Cove, North Slough, Haynes Inlet, Glasgow and Kentuck Inlet. Northerly winds can be expected to produce significant waves along the Coos Bay harbor, North Bay shore, Empire, Pigeon Point, and Charleston areas. Winds of 30 miles per hour will produce wave heights of over 2 feet in the lower bay in the more exposed areas.

2.5 Climate

Rather mild and fairly uniform air temperatures mark the climate of the Coos Bay area. The average temperature in January is 45°F while in August it is 59°F. Water temperatures are fairly constant, except in the upper bay in late summer.

2.6 Risk Assessment

The risk of oil spills within Coos Bay emanates from oil facilities, tank barges, cargo vessels, tugs, fishing vessels, and pleasure craft. One small tank barge (capacity 15,000 bbls) operates within the bay and provides bunker fuel to ships calling on the various terminals. Other oceangoing tank barges with capacities up to 84,000 bbls periodically enter to service the waterfront tank farms. No self-propelled tank vessels have called on Coos Bay since 1993.

Approximately 220 cargo vessels enter Coos Bay annually, exporting forest products from the lumber docks. No oil pipelines exist in the area; however, one fixed marine oil facility and various mobile facilities do operate.

A Coos Bay Response Cooperative was formed in Summer 1994 to provide immediate spill response to the cargo vessels over 300 GT in accordance with Oregon Revised Statute 468B.300-500. This cooperative offers response personnel, oil containment boom, skimmers, interim storage, and sorbents to provide immediate response to oil spills. The Oil spill contingency Plan for the Cooperative is still in draft form. The oceangoing tank barges entering Coos Bay are not covered by this plan, but by the Marine Spill Response Corporation, which has positioned its nearest equipment in Astoria.

3. Reference Map Coos Bay GRP Reference Map Scale 1:128811 2 miles Pacific Ocean North Coos Bay East Coos Bay South Coos Bay **OREGON**

Figure 3-1. Coos Bay Reference Map

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3-2 1 June 1996

4. General Protection/Collection Strategies

4.1 Chapter Overview

This chapter details the specific response strategies and resources to protect as outlined by the participants of the GRP workshops for each Geographical Response Area. It describes, amongst other things, the strategies determined for each area. Other pertinent information necessary for proper implementation of scenarios is found in chapters five and six. This information includes shoreline types, wildlife areas, economic areas, sensitive marine areas, archeological sites, and flight restriction zones which may be implemented by the OSCs if necessary.

Sectors

Each **geographic region** is divided into smaller **sectors** as shown by the reference map in chapter three.

Maps

The maps in this chapter provide information on the specific location of strategy points. They are designed to help the responder visualize response strategies in relation to valuable wildlife and archeological locations, economic areas, and sensitive marine areas. Maps are grouped in their respective subject matter areas. For a complete list of all maps contained in this GRP refer to the Table of Figures on page 9.

• **Protection/Collection maps** provide information on the specific location of strategy points. These maps are designed to help the responder visualize response strategies in relation to valuable wildlife and archeological locations, economic areas, and sensitive marine areas.

Tables

This chapter contains tables that are placed in their respective subject matter areas.

- Scenario Response Priority Strategies details the order in which strategies will be implemented based on various local scenarios.
- **Response Strategy Table** describes amongst other things, the details of the response strategies, indicates the purpose of the strategy and lists special considerations that may be needed to carry out the strategies.

Major Protection Techniques

All response strategies fall into one of three major techniques that may be utilized either individually or in combination. The strategies listed in 4-2 are based on one or more of the following techniques:

Dispersants:

Chemicals can be used to break up slicks on the water. Dispersants can decrease the severity of a spill by speeding the dissipation of certain oil types. Their use will require approval of the Unified Command. Dispersants will only be used in offshore situations under certain conditions, until the Area Committee makes further determinations and publishes them in the Area Contingency Plan.

In Situ Burning:

If possible, an oil slick may be set on fire. Burning must be authorized by the Unified Command, who confer with state and local air and water quality authorities. This option is often preferable to allowing a slick to reach the shore. This method works on many types of oil, but requires special equipment including a fire boom and ignitors. In Situ Burning will only be allowed when consistent with the Northwest Area Contingency Plan's In-Situ Burning Policy and Guidelines.

Mechanical Recovery Strategies:

If a spill is too close to the shore to use In Situ burning or dispersants, the key strategies are to use collection, diversion, or exclusion booming to contain the slick and prevent it from entering areas with sensitive wildlife and fisheries resources. This will be attempted through the use of various booming strategies. These options are described in detail in Appendix A.

4.2 Protection/Collection Maps

Table 4-1. South Coos Bay Protection/Collection Strategies Information

Strategy Number	Status	Location	Response Strategy	Length & Type of Boom	Strategy Implementation/Feasibility	Staging Area	Site Access	Resources Protected (Items marked with * see Flight Restriction Zone)
SCB-2		North Spit to Clam Island 43°23'20"N 124°17'44"W	Protection	1000' hard	Use 1000' boom to boom from N. spit to Clam Isl to protect. 75%		Empire boat ramp	
SCB-3		Clam Island North 43°23'5"N 124°17'48"W	Protection & Deflection	1000' hard	Use 1000' boom in V configuration to deflect oil around Clam Island. 50%		Empire Boat Ramp	(This strategy will require a lot of tending, support boats)
SCB-4		South clam Island into Channel 43°22'56"N 124°18'1"W	Protection & Deflection	500' hard	Use deflection booming to keep oil off shoreline and in main channel. 75%		Empire boat ramp, and road along North Spit	
SCB-5		North Spit south of Clam Island into Channel 43°21'55"N 124°19'4"W	Collectionebb; Deflection flood	500' hard	Protect Clam Island during Flood tides. 75%		activities confined to beach, may need helicopter support	
SCB-6		Sitka dock/Old Pulp Mill 43°22'39"N 124°17'43"W	Collectionebb; Deflection flood	1000' hard	Collect oil on ebb tide; deflect oil off shore on flood tide. 75%		Use main road out of Empire, anchor booms to end of dock, vac trucks will find this accessible	
SCB-7		Fossil PointNorth End 43°21'30"N 124°18'37"W	Collectionebb; Deflection flood	700' hard	Use ebb tide and natural formation of Fossil Point to collect. 75%		Use main access road, vac truck and boat accessible. Empire boat ramp is nearest ramp	
SCB-8	Field visit 8/95 (1)	West of Pt Adams Jetty 43°21'9"N 124°19'8"W	Deflection to enhance Collection - Protect shoreline and South Slough	500' hard; 2000' sorbents	Use hard boom to deflect oil to natural collection anea west of jetty. Use sorbents in collection area. 25%	Charleston Marina	Charleston Marina	South Slough Resources; Boom may not be feasible due to strong currents, but may still be able to collect oil west of Pt Adams Jetty
SCB-9	Field visit 8/95 (1) New Carissa 2/99 (3)	Charleston Triangle & Boat Basin 43°20'43"N 124°19'15"W	Protection	1200' filter fence; 1500' curtain	Run curtain boom from end of fishing dock to fish plant. 18" minimum. 50%	Charleston Marina	Charleston Marina	Protect high public use clam beds
SCB-10	Field visit 8/95 (1)	Charleston Flat 43°20'13"N 124°19'23"W	Protection	2500' hard	Anchor boom to bridge pilings, may use rebar stakes and cement blocks as anchors. 50%	Charleston Marina	Charleston Marina; strategy may require boat and/or helo deployment	Protect high public use clam beds
SCB-11	Field visit 8/95 (1)	Entrance to Joe Ney Slough 43°20'2"N 124°18'58"W	Protection & Collection	(2) 900' 20" boom with 100lb anchors on each end. Also need 10 40lb anchors	Two parallel booms with sorbent between. 75%	International Port of Coos Bay Dock	International Port of Coos Bay shipyard or Charleston Marina	Fish, shrimp and marsh in Joe Ney Slough
SCB-12		Collver Point 43°19'45"N 124°19'24"W	Collection - flood; Deflection-ebb	700' hard	Use physical shape of Collver Pt. to collect oil on flood, use trees as anchors. 75%	Charleston Marina; may require boat deployment	BoatCharleston Marina; Vehicleprivate road	
SCB-13		Hayward Creek 43°19'29"N 124°19'32"W	Protection	200' hard	Boom off mouth to protect marsh area during flood tide; use trees as anchors. 75%	Charleston Marina	Charleston Marinawill probably require only boat deployment	

Strategy Number	Status	Location	Response Strategy	Length & Type of Boom	Strategy Implementation/Feasibility	Staging Area	Site Access	Resources Protected (Items marked with * see Flight Restriction Zone)
SCB-14		Graveyard Pt to Fry Marsh 43°18'37"N 124°19'26"W	Protection & Collection	2000' hard	Use boom to form west side of large V collection strategy. 50%	Charleston Marina	Charleston Marinastrategy allows only for boat deployment	
SCB-15		Crown Pt to Fry Marsh 43°18'32"N 124°19'16"W	Protection & collection	4000' hard	Use boom to form east side of large V collection strategy. 25%	Charleston Marina	Charleston Marinastrategy allows only for boat deployment	
SCB-16		Sengstaken Arm 43°18'24"N 124°19'9"W	Protection	800' hard	Boom across mouth of arm to protect study area, use trees as anchors; boom will need constant tending. 75%	Charleston Marina	Charleston Marinastrategy allows only for boat deployment	
SCB-17		Winchester Arm 43°18'22"N 124°18'51"W	Protection	800' hard	Boom across mouth of arm to protect study area, use trees as anchors; boom will need constant tending. 75%	Charleston Marina	Charleston Marinastrategy allows only for boat deployment	
SCB-18	Field visit 8/95 (1) New Carissa 2/99(2)	Shipyard @ Charleston 43°20'14"N 124°19'9"W	Deflection & Collection	(3)700', 500' hard	Set up parallel booming to deflect oil into collection point; anchor additional boom at north entrance of Joe Ney Slough to deflect oil away from the slough. 75%	Shipyard	Shipyard; easily vacuum truck accessible	South Slough resources

Status Notes

- (1) Field visit August 1, 1995 by MSRC and DEQ. Points of contact: Jim Haugen, MSRC, (425) 304-1524 and Jack Wylie, DEQ, (503) 229-5716.
- (2) New Carissa February 1999. Boom placed under the bridge (old location) vice location shown in the GRP. Untended. Ineffective as placed (open on both ends).
- (3) New Carissa February 1999. Tended by Foss to allow boat access to the marina. According to the 18 Feb 99 Incident Action Plan a total of 4,800ft of 20" boom was deployed in South Slough. New strategy from SCB-9, Charleston Marina to the east end of the bridge at Barview. Effective?

4-6 1 April 2000 Change 4

4.2.1 South Coos Bay

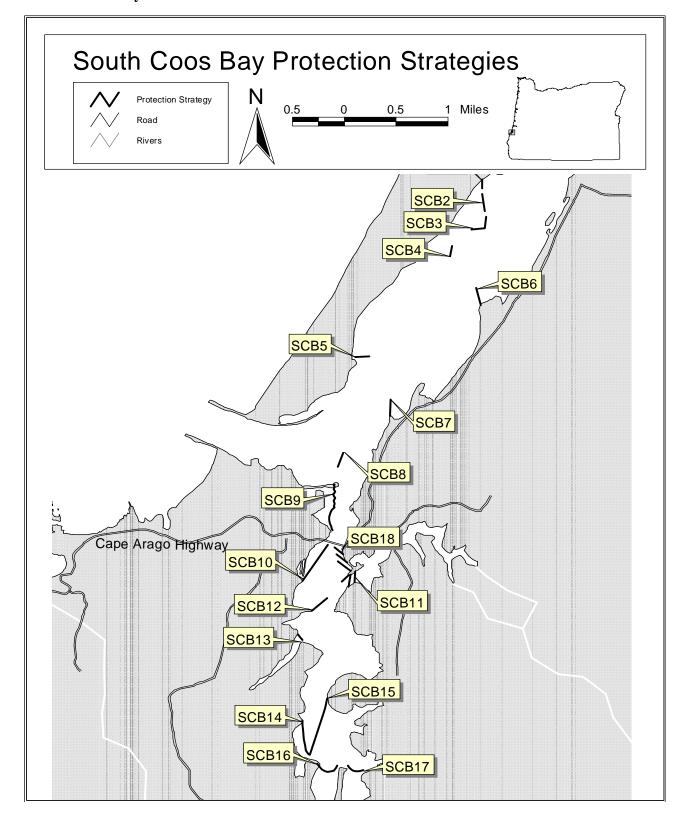


Figure 4-1. South Coos Bay Protection/Collection Options

Table 4-2. North Coos Bay Protection/Collection Strategies Information

Strategy Number	Status	Location	Response Strategy	Length & Type of Boom	Strategy Implementation/Feasibility	Staging Area	Site Access	Resources Protected (Items marked with * see Flight Restriction Zone)
SCB-1		Small Inlet at Mushroom Pt across fm Treatment Plant #2 43°23'20N 124°17'44"W	Protection	500' hard	Using hard boom anchored w/ ecology blocks protect threatened plants. 75%		Helicopter deployment only, Empire boat ramp is nearest water deployment area	· ·
SCB-2		North Spit to Clam Island 43°23'20"N 124°17'44"W	Protection	1000' hard	Use 1000' boom to boom from N. spit to Clam Isl to protect. 75%		Empire boat ramp	
SCB-3		Clam Island North 43°23'5"N 124°17'48"W	Protection & Deflection	1000' hard	Use 1000' boom in V configuration to deflect oil around Clam Island. 50%		Empire Boat Ramp	(This strategy will require a lot of tending, support boats)
SCB-4		South clam Island into Channel 43°22'56"N 124°18'1"W	Protection & Deflection	500' hard	Use deflection booming to keep oil off shoreline and in main channel. 75%		Empire boat ramp, and road along North Spit	
SCB-6		Sitka dock/Old Pulp Mill 43°22'39"N 124°17'43"W	Collectionebb; Deflectionflood	1000' hard	Collect oil on ebb tide; deflect oil off shore on flood tide. 75%		Use main road out of Empire, anchor booms to end of dock, vac trucks will find this accessible	
SCB-19		Empire Docks 43°23'50"N 124°16'40"W	Collection	500' hard	Anchor boom to docks to enhance already existing natural collection area along sandy shoreline. 75%	Empire Boat Ramp	Empire Boat ramp; vacuum truck accessible	
SCB-20		Barge Landing 43°24'24"N 124°16'49"W	Collection	300' hard	Anchor boom to barge landing and out into flow to enhance natural collection already occurring along riprap shoreline. 75%	Barge Landing	Access from barge landing, vacuum truck accessible	
SCB-21		Henderson Marsh on North Spit 43°25'7"N 124°16'30"W	Collection	2000' hard in stepdown configuration	Use step down booming to enhance natural collection in marsh; substrate is riprap & coarse sand. 50%	Barge Landing	Barge Landing; access from road & beach; vacuum trucks may be able to access	
SCB-22		Jordan Cove 43°25'47"N 124°14'37"W	Deflection	2000' in step down configuration	Use marsh boom (if available) to deflect oil from vegetated mud flat area; sorbent boom may be useful to collect. 50%	North Bend Airport	Good vehicle access from boat ramp	
SCB-23	Field visit 8/95 (1) New Carissa 2/99 (2)	Pony Slough 43°25'23"N 124°14'12"W	Collection & Deflection	800' hard boom	Deflect oil @ mouth to natural collection area, need to boom this on the flood tide. 50%	North Bend Airport	Boat ramp at Pony Point	Pony Slough Resources
SCB-24A	Field visit 8/95 (1)	North Slough Entrance 43°26'17"N 124°14'1"W	Protection and Collection	1600' hard; 1000' sorbent	Form a large V with 2 800' sections of hard boom to enhance natural collection along riprap causeway. 25%	Conde McCullough State Wayside	Good causeway road; may need very large anchor at tip of V, mudflats may make deployment difficult	North Slough Resources; Located over oyster beds

Strategy Number	Status	Location	Response Strategy	Length & Type of Boom	Strategy Implementation/Feasibility	Staging Area	Site Access	Resources Protected (Items marked with * see Flight Restriction Zone)
SCB-24B	Field visit 8/95 (1)	Haynes Inlet 43°26'24"N 124°13'9"W	Protection and Collection	2000' hard boom	Form a "V" to protect Haynes Inlet and to enhance natural collection. 25%	Conde McCullough Wayside	Good causeway road; may need very large anchor at tip of "V"; mudflats may make deployment difficul	Located over oyster beds
SCB-25		Simpson Heights 43°25'12"N 124°13'0"W	Collection	1200' hard	Boom at Simpson heights to collect during both ebb and flood tide, use double anchors because of strong current. 75%	Conde McCullough State Wayside	Good causeway road; may need very large anchor at tip of V, mudflats may make deployment difficul	
SCB-26		Newport Petroleum 43°23'28"N 124°13'3"W	Collection	1000' hard	Anchor boom to existing pilings along waterfront to collect oil during ebb/flood tide. 75%	Newport Petroleum/Sause Bros.	Newport Petroleum Pier	Waterfront/industrial area
SCB-27		Downtown Waterfront 43°23'6"N 124°13'8"W	Collection	1000' hard	Anchor booms to existing pilings along waterfront to collect during ebb/flood tides. 75%	Sause Brothers, USCG pier	Newport Petroleum W	aterfront/industrial area

Status Notes

- (1) Field visit August 1, 1995 by MSRC and DEQ. Points of contact: Jim Haugen, MSRC, (425) 304-1524 and Jack Wylie, DEQ, (503) 229-5716.
- (2) New Carissa February 1999. 1200ft of 20" boom deployed across entrance vice deflection as shown. Also 200ftX20" at east entrance to Pony Slough.

4-10 1 April 2000 Change 4

4.2.2 North Coos Bay

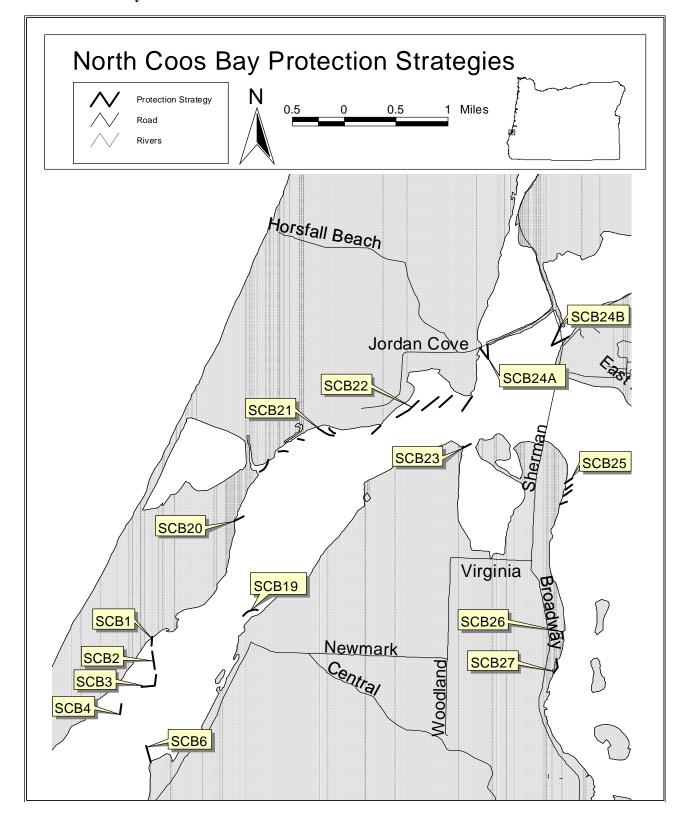


Figure 4-2. North Coos Bay Protection/Collection Options

Table 4-3. East Coos Bay Protection/Collection Strategies Information

Strategy Number	Status	Location	Response Strategy	Length & Type of Boom	Strategy Implementation/Feasibility	Staging Area	Site Access	Resources Protected (Items marked with * see Flight Restriction Zone)
SCB-23	Field visit 8/95 (1) New Carissa 2/99 (2)	Pony Slough 43°25'23"N 124°14'12"W	Collection & Deflection	800' hard boom	Deflect oil @ mouth to natural collection area, need to boom this on the flood tide. 50%	North Bend Airport	Boat ramp at Pony Point	Pony Slough Resources
SCB-25		Simpson Heights 43°25'12"N 124°13'0"W	Collection	1200' hard	Boom at Simpson heights to collect during both ebb and flood tide, use double anchors because of strong current. 75%	Conde McCullough State Wayside	Good causeway road; may need very large anchor at tip of V, mudflats may make deployment difficult	
SCB-26		Newport Petroleum 43°23'28"N 124°13'3"W	Collection	1000' hard	Anchor boom to existing pilings along waterfront to collect oil during ebb/flood tide. 75%	Newport Petroleum/Sause Bros.	Newport Petroleum	Waterfront/industrial area
SCB-27		Downtown Waterfront 43°23'6"N 124°13'8"W	Collection	1000' hard	Anchor booms to existing pilings along waterfront to collect during ebb/flood tides. 75%	Sause Brothers, USCG pier	Newport Petroleum	Waterfront/industrial area
SCB-28	Field visit 8/95 (1)	Bull Island 43°21'50"N 124°10'23'W	Protection	600' hard boom; 1200' sorbent	Use combination of hard and sorbent boom to protect sensitive marsh; use sorbents in small channels. 25%	Downtown waterfront	Boat access from waterfront	Marsh
SCB-29	Field visit 8/95 (1)	Coalbank Slough 43°21'35"N 124°12'20"W	Protection & Collection	500' hard boom	Deploy boom at RR bridge to protect sensitive marsh; may want to secondary boom further up slough. 75%	Downtown waterfront	Boat access from waterfront, vehicle access from road 101	Coalbank Slough Resources
SCB-30	Field visit 8/95 (1)	Isthmus Slough 43°21'26"N 124°11'34"W	Protection & Collection	500' hard boom	Boom across mouth to protect, collect oil on flood tide; anchor on either side of slough. 75%	Downtown waterfront	Access from road, could use vacuum trucks; may want secondary boom further up slough	Isthmus Slough Resources
SCB-31	Field visit 8/95 (1)	Catching Slough 43°21'38"N 124°10'30"W	Protection & Collection	1000' hard	Boom across mouth south of bridge to protect slough & collect oil on flood tide, may want to double boom farther up slough. 75%	Downtown waterfront	Good road access	Catching Slough Resources
SCB-32	Field visit 8/95 (1)	Cooston Channel 43°21'47''N 124°10'5''W	Protection	500' hard	Protect and prevent oil from entering shallow Cooston Channel on the east side of Bull Island. 50%	Downtown waterfront	Road access on south side of Coos River	Cooston Channel Resources. Note caution on navigation chart: "Extensive shoaling has been reported near the east bank of the Cooston channel in the vicinity of Graveyard point"
SCB-33	Field visit 8/95 (1)	Millacoma Marsh 43°22'25"N 124°11'8"W	Deflection & Protection	1000' hard; 200' sorbent	Use step down booms to deflect oil from marsh, anchor on either side of slough (if possible). 50%	SOMAR	Boat access	Milolacoma Marsh Resources
SCB-34	Field visit 8/95 (1)	Bull Island West End 43°22'15"N 124°10'25"W	Deflection	4X200'; 1X400'	Deflect oil @ West end of Bull Island. 50%	Downtown waterfront	Boat access only	Bull Island Resources
SCB-35		Cooston 43°23'27"N 124°11'10"W	Protection & Collection	300' hard	Anchor boom on bank and angle to collect waterborne product. 75%		Good road access; may use vacuum trucks	

Strategy Number	Status	Location	Response Strategy	Length & Type of Boom	Strategy Implementation/Feasibility	Staging Area	Site Access	Resources Protected (Items marked with * see Flight Restriction Zone)
SCB-36		Willanch Slough 43°24'15"N 124°11'33"W	Protection & Collection	300' hard	Anchor boom on bank and angle to collect waterborne product. 75%		Good road access; may use vacuum trucks	
SCB-37		Kentuck Slough 43°25"19"N 124°11'14"W	Protection & Collection	300' hard	Anchor boom on bank and angle to collect waterborne product. 75%		Good road access; may use vacuum trucks; possible tide gate	

Status Note (1): Field visit August 1, 1995 by MSRC and DEQ. Points of contact: Jim Haugen, MSRC, (425) 304-1524 and Jack Wylie, DEQ, (503) 229-5716. (2) New Carissa February 1999. 1200ft of 20" boom deployed across entrance vice deflection as shown. Also 200ftX20" at east entrance to Pony Slough.

4-14 1 April 2000 Change 4

4.2.3 East Coos Bay

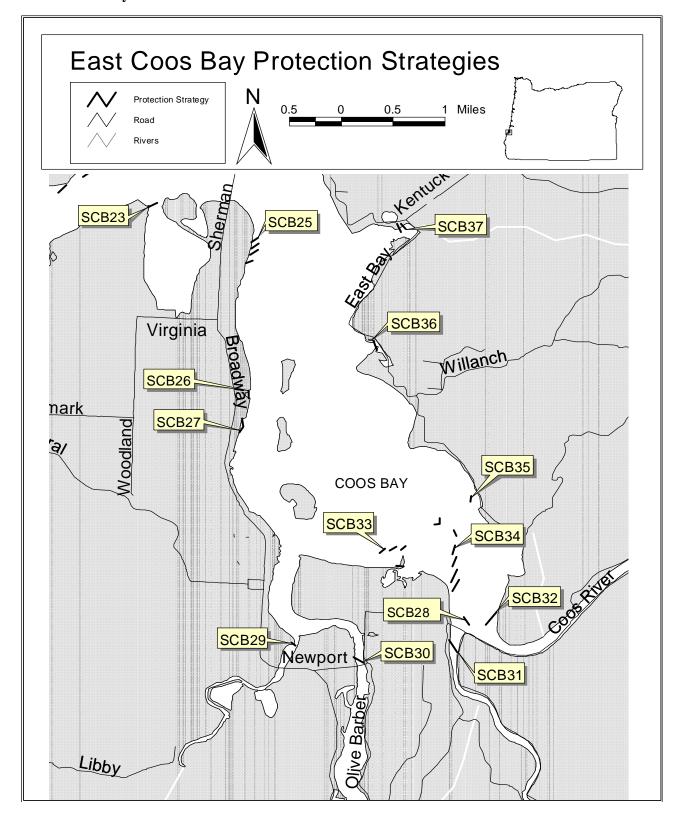


Figure 4-3. East Coos Bay Protection/Collection Options

4.3 Protection/Collection Priorities for Coos Bay Scenarios

The Protection/Collection Priority table for scenarios 1 - 3 give a detailed list of the priorities for each of 3 scenarios; oil moving toward South Slough-incoming tide, oil moving toward the Port Docks-incoming tide, and oil spilled at the Port Docks-outgoing tide.

Procedures:

Identify the appropriate scenario based on the available information, select the priority, identify the strategy and go to the appropriate table in this chapter..

Table 4-1. Oil moving toward South Slough, Incoming tide. (Scenario 1)

Priority	Strategy	Comments
1	SCB-8	Collect oil before entering Slough
2	SCB-18	Collect oil @ Charleston Shipyard
3	SCB-9	Protect Marina
4	SCB-10/11	Collection & Protection
5	SCB-12	Protection
6	SCB-16	Protection
7	SCB-17	Protection
8	SCB-14/15	Protection & Collection

Refer to Table and Maps for exact locations of strategies.

Table 4-2. Oil moving toward Port Docks, Incoming tide. (Scenario 2)

Priority	Strategy	Comments
1	SCB-26	Recover product
2	SCB-27	Recover product
3	SCB-29	For Protection
4	SCB-30	"
5	SCB-31	"
6	SCB-32	"
7	SCB-35	Protection & Collection
8	SCB-36	Protection & Collection

Refer to Table and Maps for exact locations of strategies.

Protection/Collection Priorities Tables for Coos Bay (Continued)

Table 4-3. Oil spilled at Port Docks--Outgoing tide. (Scenario 3)

Priorities	Strategy	Comments
1	SCB-26	Recover oil
2	SCB-27	Recover oil
3	SCB-36	Protection & Collection
4	SCB-37	Protection & Collection
5	SCB-35	Protection & Collection
6	SCB-25	Collect oil @ Simpson Heights
7	SCB-24A&24B	Natural collection area
8	SCB-23	Pony Slough

Refer to Table and Maps for exact locations of strategies.

5. Shoreline Countermeasures

5.1 Chapter Overview

The following text and maps are in draft form, and are intended to serve as a training tool for countermeasure contingency planning and implementation for shoreline areas in Federal Region X. Shoreline countermeasure processes evolve to reflect increasingly efficient treatment techniques. Accordingly, the following information will be altered as new information is added.

5.2 Shoreline Type Maps

The shoreline types in the following maps are a modified version of the environmental sensitivity index types for the Oregon coast and estuaries. The shoreline types were regrouped into five levels of sensitivity from the original ten shoreline types. The modified types are:

- 1. Open water, banks, or cliffs
- 2. Sand or gravel beaches
- 3. Riprap, sandy flats, or organic debris
- 4. Vegetated banks or tidal mud flats/aquatic beds
- 5. Marsh, swamp, or rocky intertidal

5.3 Oil Countermeasure Matrix

The Northwest Area Committee has developed a manual and a series of matrices as a tool for shoreline countermeasure response. The Northwest Shoreline Countermeasures Assessment Manual is included in the Northwest Area Contingency Plan (Section 9640).

Shoreline countermeasures following an oil spill are a critical element in determining the ultimate environmental impact and cost resulting from a spill. Local response organizations and agencies have developed mechanisms for identifying shorelines requiring treatment, establishing treatment priorities, monitoring the effectiveness and impacts of treatment, and for resolving problems as the treatment progresses.

Each section of the manual has been adapted to the specific environments, priorities, and treatment methods appropriate to the planning area. These elements provide the information needed to select cleanup methods for specific combinations of shoreline and oil types. Local information on shoreline types (Discussed in chapter 2) can be obtained from Environmental Sensitivity Index (ESI) atlases prepared by NOAA for northern and southern Puget Sound, the Washington and Oregon coast, and the Columbia River.

South Coos Bay



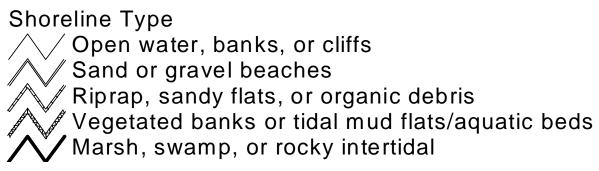
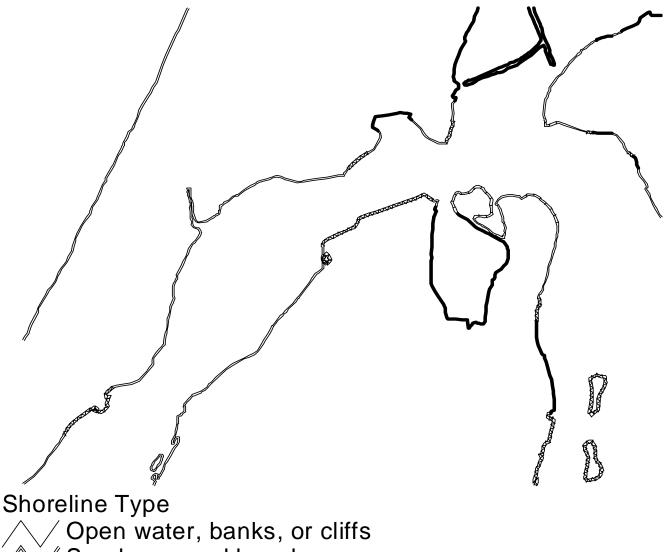


Figure 5-1. South Coos Bay Shoreline Types

5-2 1 June 1996

North Coos Bay



Sand or gravel beaches

Riprap, sandy flats, or organic debris

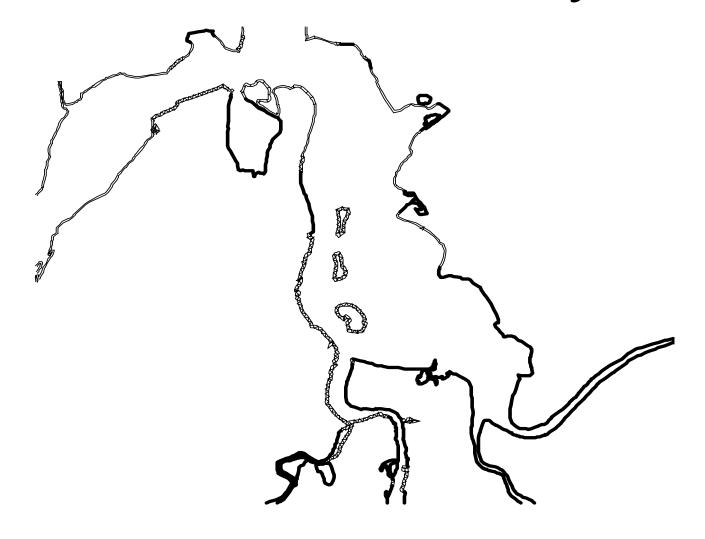
Vegetated banks or tidal mud flats/aquatic beds

Marsh, swamp, or rocky intertidal

Figure 5-2. North Coos Bay Shoreline Types

5-3 1 June 1996

East Coos Bay



Shoreline Type

 $extstyle \diagup \diagup$ Open water, banks, or cliffs

Sand or gravel beaches

Riprap, sandy flats, or organic debris

Vegetated banks or tidal mud flats/aquatic beds

/ Marsh, swamp, or rocky intertidal

Figure 5-3. East Coos Bay Shoreline Types

5-4 1 June 1996

6. Sensitive Resource/Wildlife Flight Restriction Information

Text to be provided by Oregon Department of Fish and Wildlife

6.1 Chapter Overview/Sensitive Resource Description

6.2 Fisheries

6.3 Wildlife

6.4 Marine Mammals

Disturbance to marine mammals during oil spill response actions should be avoided at all times. Harassment of mammals by aircraft, boat and land activities causes animals to become agitated and engage in abnormal "avoidance" behaviors that are likely to increase the risk of exposure to oil contaminated areas. Of particular importance is to avoid disturbance of pinnipeds (seals and sea lions) on land haul-out areas. The more time these animals are allowed to rest on land, out of the water, the less chance for oil contamination.

Overflights of the entire Cape Arago should be avoided at all times. Disturbance of the thousands of pinnipeds using this site as a resting area would greatly increase the numbers of animals in the water nearby that may come in contact with spilled oil.

6.5 Shorebirds, Waterfowl, and Raptors

6.6 Archeological Sites

Archeological, Cultural and Tribal Religious Sites

Archeological research in Coos Bay is incomplete. However, there are several archeological sites recorded in or near the intertidal zone, the areas that face the greatest threat from oil spills. The intertidal zones can contain ancient materials preserved by the anaerobic mud. Activities associated with oil spill response such as mechanical cleanup of contaminated areas could physically disturb artifacts and their historical context. Oil could also contaminate materials making carbon dating, restoration, and preservation extremely difficult or impossible.

Tribes to be contacted in Coos County

In the event of an oil spill within the aboriginal territory of the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians (CTCLUS), the Tribes should be contacted immediately. Coos tribal territory extends from Whisky Run north to Tenmile Creek and includes all of Coos Bay.

The Coquille Indian Tribe owns some trust land on or near Coos Bay, and should also be contacted in the event of an oil spill.

Immediate Response for the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians.

- During business hours (8:00AM to 5:00PM), the Tribal Offices can be reached at (541) 267-5454.
- Emergency after-hours contacts are as follows:

• First contact: Patty Whereat (541) 756-7073 or (541) 756-7318

Second contact: Bob Polasky (541)
 Third contact: Dick Clarkson (541)

During spill cleanup operations, in addition to the CTCLUS, the Bureau of Indian Affairs Portland Area Office, (503) 231-6749, and the Oregon State Historic Preservation Office, (503) 378-6508, should be notified.

Spill Cleanup Operations

CTLUS keeps records of locations of tribal cultural sites.

If a site or sites appear threatened by an oil spill or cleanup response, a professional archeologist approved by CTCLUS, familiar with the area should be included in the response effort. The archeologist, with the assistance of the Tribes, could identify site locations, assess the damage, and decide whether or not cleanup techniques would impact the cultural sites. Tribal members and the archeologist would monitor any recommended cleanup and associated land disturbance to ensure that minimal destruction occurs wherever possible.

An archeologist should be assigned to the response team to conduct surveys for pre-cleanup, access roads, pits, and any other activities that would cause ground distrubance.

6.7 Flight Restriction Maps

Wildlife Resource/Flight Restriction zones are designed to protect shorebirds and marine mammals from aerial disturbances common during a spill response.

6.8 Wildlife Resource/Flight Restriction Tables

The Wildlife Resource/Flight Restriction Tables detail the location, protected resources, and applicable season for each flight restriction zone.

6.9 Commercial Aquaculture

Commercial aquaculture is an important economic resource that can be severely impacted by an oil spill. Because of the extreme sensitivity of these resources, owners and operators of these facilities should be notified if a spill threatens their resources so that they can take appropriate protective action. The following table lists commercial aquaculture facilities within the area of the Coos Bay GRP.

Facility	Address	Point of Contact	Phone Number	Туре
Clausen Oysters	4215 Hwy 101 S Coos Bay, OR 97420	Max Clausen	(541) 267-3704	Privately owned oyster beds
Coos Bay Oyster Company	5055 Boat Basin Dr., Charleston, OR 97420	Jack Hampel	(541) 888-5525	Privately owned oyster beds
North Bend Oyster Company	P.O. Box 5555 Charleston, OR 97420	Jerry Hampel	(541) 888-4633	Privately owned oyster beds
Qualman Oyster Company	4898 Crown Pt. Rd. Coos Bay, OR 97420	Larry Qualman	(541) 888-3145	Privately owned oyster beds

Contact the Oregon Department of Agriculture Duty Officer through the Oregon Emergency Response System, (800) 452-0311, for current aquaculture facility information.

See Figure 6-6 for a general location of shellfish within Coos Bay.

Table 6-1 Wildlife Resource/Flight Restriction Table

A list of wildlife resources and any corresponding flight restriction zones is found below. Flight restriction zones are designed to protect shorebirds and marine mammals from aerial and terrestrial disturbances common during a spill response.

Code	Location	Seabird Colony	Seabird Conc.	Waterfowl Conc.	Mammal Haulout	Sensitive Nesting Species	Shorebird Conc.	Seaso	onality	of Reso	ource		_						_	Flight Restriction
								Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
W-1	North Slough					Heron														
W-2	Haynes Inlet						Yes													
W-3	North Slough						Yes													
W-4	North Slough	Yes					Yes													
W-5	North Slough	Yes																		
W-6	Jordon Cove			Yes			Heron													
W-7	Kentuck Inlet			Yes																
W-8	McCullough Bridge	Yes																		
W-9	Pony Slough			Yes			Heron													
W-10	Kentuck Inlet/Upper Coos Bay			Yes			Yes													
W-11	North Spit						Yes													
W-12	Kentuck Inlet			Yes																
W-13	Kentuck Inlet/UpperCoos Bay/Simpson Heights			Yes	Yes		Yes													
W-14	S of Runway			Yes																
	North Spit						Yes													
W-16	Spoil Island off Airport	Yes																		
	Spoil Island off Airport/S of Runway	Yes		Yes																
W-18	Upper Coos Bay						Yes													
W-19	North Spit			Yes																
W-20	North Spit			Yes			Heron													
W-21	Upper Coos Bay						Yes													
W-22	Barview			Yes																
W-23	North Spit	Yes		Yes			Heron													
W-24	North Spit	Yes																		
W-25	North Spit/Clam Island	Yes		Yes	Yes		Heron													
W-26	Upper Coos Bay/Marshfield Channel			Yes	1200 6		Yes													

Months that resource is present in this location All zones include a 1200 foot flight restriction and a 1000-1500 foot ground access restriction. Contact the Oregon Department of Fish and Wildlife before entering restriction zones.

6-4 1 June 1996

Table 6-2 Wildlife Resource/Flight Restriction Table

A list of wildlife resources and any corresponding flight restriction zones is found below. Flight restriction zones are designed to protect shorebirds and marine

mammals from aerial and terrestrial disturbances common during a spill response.

Code	Location	Seabird Colony	Seabird Conc.	Waterfowl Conc.	Mammal Haulout	Sensitive Nesting Species	Shorebird Conc.	Seasonality of Resource					Flight Restriction							
								Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	Marshfield Channel			Yes																
	North Spit					Heron	Yes													
	North Spit			Yes																
	Lower Bay	Yes			Yes															
	T-25, R-T3, Sec 13					Heron														
W-32	Barview / Pigeon Pt.			Yes			Heron													
	Sitka Dock					Yes														
W-34	Barview / Sitka Dock			Yes		Yes														
W-35	Marshfield Channel / Coosten Channel			Yes		Raptor														
W-36	Coosten Channel					Raptor														
W-37	Upper Coos Bay / Marshfield Channel			Yes			Yes													
W-38	Millacoma Marsh					Raptor														
W-39	Pigeon Pt. / Barview			Yes	Yes	•	Heron													
	Bull Island / Marshfield Channel			Yes			Heron													
W-41	Tarheel Reservoir Feeding Site / Lower Bay	Yes			Yes	Raptor feeding														
W-42	Lower Bay / Barview / Tarheel Reservoir Feeding Site	Yes		Yes	Yes	Raptor feeding														
W-43	East side					Heron														
W-44	Tarheel Reservoir					Raptor														
	Coos Head					Seabird														
W-46	Gregory Pt.					Seabird														
	Lower Bay / South Slough	Yes		Yes	Yes															
	South Slough			Yes																
	Charelston Marina	Yes																		
W-50	Charelston Marina / South Slough	Yes		Yes																
W-51	Charelston Marina / South Slough	Yes		Yes																
W-52	Charelston Marina/ Boat Basin	Yes			Yes															

Months that resource is present in this location All zones include a 1200 foot flight restriction and a 1000-1500 foot ground access restriction. Contact the Oregon Department of Fish and Wildlife before entering restriction zones.

6-5 1 June 1996

Table 6-3 Wildlife Resource/Flight Restriction Table

A list of wildlife resources and any corresponding flight restriction zones is found below. Flight restriction zones are designed to protect shorebirds and marine mammals from aerial and terrestrial disturbances common during a spill response.

	nammals from aerial and terrestrial disturbances common during a spill response.								,											
Code	Location	Seabird Colony	Seabird Conc.	Waterfowl Conc.	Mammal Haulout	Sensitive Nesting Species	Shorebird Conc.	Seaso	onality	of Reso	urce			_	_	_			_	Flight Restriction
								Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
W-53	South Slough			Yes																
W-54	Joe Ney Slough			Yes																
W-55	South Slough/Hayward Creek Rppst Site			Yes		Raptor														
W-56	South Slough/Charleston Boat Basin			Yes	Yes															
W-57	Charleston Boat Basin				Yes															
W-58	Lower Bay Souith Slough	Yes		Yes	Yes															
W-59	Charleston Marina/South Slough/Charleston Boat Basin	Yes		Yes	Yes															
W-60	Charleston Marina/South Slough	Yes		Yes																
W-61	Charleston Marina/South Slough	Yes		Yes																
W-62	South Slough						Wader													
W-63	Charleston Boat Basin/South Slough			Yes	Yes															
W-64	South Slough			Yes																
W-65	South Slough			Yes			Wader													
W-69	Roosevelt & Blvd Nest						Wader													
W-70	Roosevel & Blvd Nest/South Slough			Yes			Wader													
W-71	Hayward Creek Roost Site					Raptor														
W-72	South Slough/ Cullver Point			Yes	Yes		Wader													
W-73	Hayward Creek Roost Site					Raptor														
W-74	Hayward Creek Roost Site					Raptor														
W-75	Hayward Creek Nest					Raptor														
W-76	South Slough/Cullver Point			Yes																
W-77	South Slough/Cullver Point			Yes																
W-78	Elliot Creek			Yes																
W-79	Talbot Creek			Yes																

Months that resource is present in this locationAll zones include a 1200 foot flight restriction and a 1000-1500 foot ground access restriction. Contact the Oregon Department of Fish and Wildlife before entering restriction zones.

1 June 1996 6-6

Coos Bay Seabirds

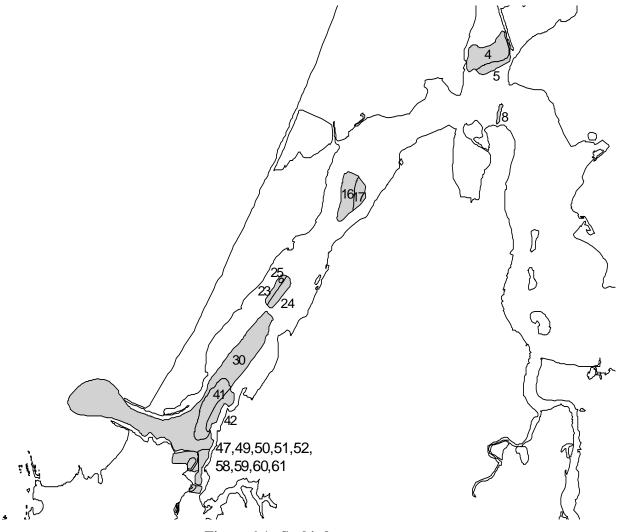


Figure 6-1. Seabirds

Coos Bay Waterfowl



Figure 6-2. Waterfowl

Coos Bay Mammals

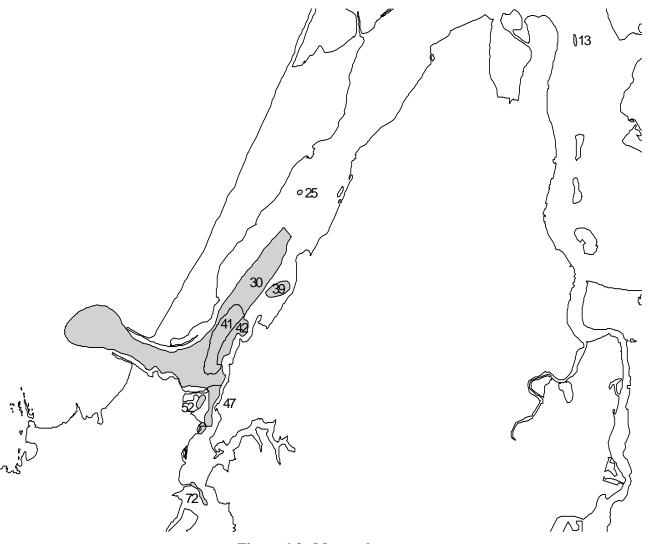


Figure 6-3. Mammals

Coos Bay Nests



Figure 6-4. Nests

Coos Bay Shorebirds



Figure 6-5. Shorebirds

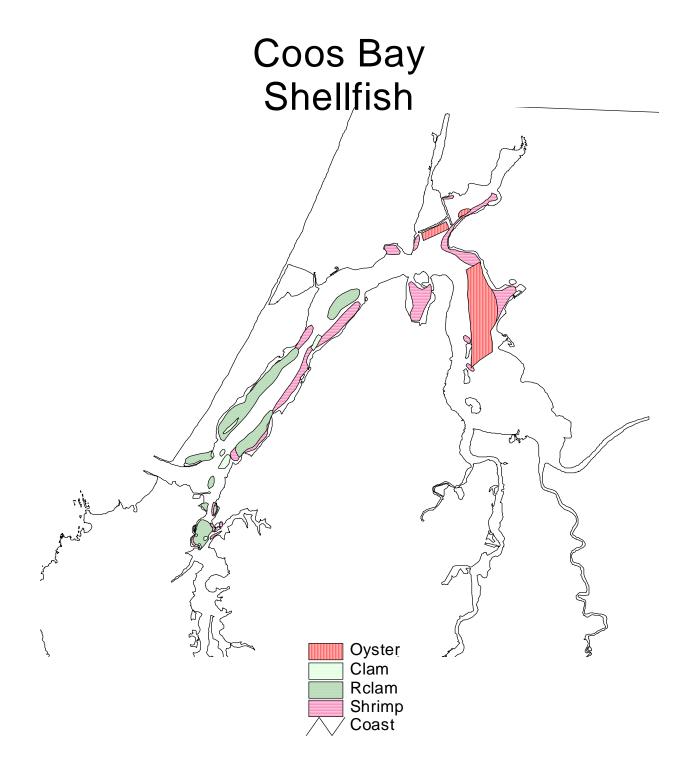


Figure 6-6. Shellfish

7. Logistical Information

The following list was compiled at the Coos Bay Geographic Response Plan Workshop held in Coos Bay on February 18, 1993 and updated May 1996. Areas of information include command posts; communications; equipment cache locations; inventory of local support equipment; air support; access points to the bay; and other pertinent logistical support.

Table 7-1, Logistical Information

Subject	Name	Characteristics	Contact	Phone #
Command Posts				
Coos Bay	Sause Brothers Training Facility	Meeting Rooms, training equipment	Dick Lauer	(541) 269-5841 (800) 234-5841
Coos Bay	National Guard Armory			(541) 888-5132
Coos Bay	Air National Guard Facility			(541) 888-7514
Coos Bay	Coos Forest Protective Association		Gene Brach	(541) 267-3161
Coos Bay	Port Offices	Meeting Room, some Communications	Allan Rumbaugh	(541) 267-7678
Coos Bay	Red Lion Inn	Meeting Rooms, Lodging		(541) 267-4141
Communications				
Bureau of Land Management		12 four wheel drive vehicles w/ communications to BLM dispatch center, North Bend	Tim Votaw	(541) 756-0100
Coos Bay Fire Dept.	Empire Fire Station	HAZMAT mobile command post w/ radio, fax, phone		(541) 888-2116
Coos County	Sheriff's Dept.	Vehicles w/ comms to center		(541) 396-2106
State Police		Mobile Comms to Center		911 or thru OERS
Coos Bay Response Co-op		Mobile Comms Van	Dick Lauer	(541) 269-5841
MSRC		Mobile Comms Van		(206) 252-1300
OERS	Oregon Emergency Management	Mobile Comms Van	Dan Malin	(800) 452-0311 (800) OILS-911

Subject	Name	Characteristics	Contact	Phone #
Equipment Cache				
Locations				
Coos Bay	Bayshore Dock-Sause	1200' hard boom	Dick Lauer	(541)
	Brothers			269-5841
				(800)
				234-5841
Coos Bay	TOSCO	1200' hard boom		(541)
				269-9600
Coos Bay	Sause Brothers Ocean	3600' hard boom	Dick Lauer	(541)
	Towing Corporation			269-5841
				(800)
				234-5841
Coos Bay	Newport Petroleum	2400' hard boom	Jim Hurd	(541)
·	•			756-0481
Coast Guard Air	U. S. Coast Guard	Response Trailer	Duty Officer	(541)
Station	Group North Bend	•		756-9211
Inventory of Local				
Support Equipment				
Helicopter				
Support/Air Support				
Coos Bay	Bay City Ambulance	2 fixed wing		(541)
·				347-3973
Coos Bay	Sause Brothers	1 fixed wing	Dick Lauer	(541)
				269-5841
North Bend	Coos Aviation	Aircraft Charters		(541)
				756-5181
North Bend	Pegasus Air	Aircraft Rental	North Bend Airport	(541)
			_	756-5727
Access Points to				
Harbor/Boat Ramps				
Charleston	Charleston Boat Basin	Concrete, parking,		
		restrooms		
Coos Bay	Conde McCulloch	Gravel		
Coos Bay	Empire Boat Ramp	Concrete, parking,		
•		restrooms		
Coos Bay	Pony Point	Concrete, parking,	Port of Coos Bay, Allan	(541)
Ĭ		restrooms	Rumbaugh	267-7678
Coos Bay	Myrtle Tree Boat	Concrete, parking,		
•	Ramp	restrooms		

Staging Areas				
NOTE: For most				
staging areas, contact				
local county				
emergency manager or				
sheriff's department.	DIMN 4 C '- D	D 1 1:	TD: X7 /	(5.41) 75.6
Coos Bay	BLM North Spit Boat Ramp	Paved parking, restrooms	Tim Votaw	(541) 756- 0100
Coos Bay	Pony Point Boat Ramp near airport	concrete, parking, restrooms	Port of Coos Bay, Allan Rumbaugh	(541) 267-7678
Coos Bay	Port of Coos Bay	Barge slip dock	Port of Coos Bay, Allan Rumbaugh	(541) 267-7678
Coos Bay	SOMAR	Extensive staging and equipment areas	Dick Lauer	(541) 269-5841 (800) 234-5841
Coos Bay	Port Boat Ramp	Large, Paved staging area	Port of Coos Bay, Allan Rumbaugh	(541) 267-7678
Recreational Activities which could interfere				
Tribal Resources				
	Coquille Tribe		Ed Metcalf	(541) 267-4587
	Confederated Tribes of Coos and Lower Umpqua		Howard Kubli— Administration Office	(541) 267-5454
Key Local Elected Officials				
Coos Bay	Mayor		Joseph Benetti	(541) 269-8912
Coquille	City Manager		Joseph Wolf	(541) 396-2116
North Bend	Mayor		John Brigg	(541) 756-8534
Fire Department				. 23 322 1
Coos Bay	City Fire Dept.		Business phone	(541) 269-1191
Coquille	City Fire Dept.		Business phone	(541) 396-2232
North Bend	City Fire Dept.		Business phone	(541) 756-3135
Local Personnel Support				. 2 3 2 1 3 3
Oregon State Parks	All beach areas south of Florence			(541) 269-9412

Volunteers				
SOLV Volunteers	Through ODEQ	Low Risk Beach Cleanup	Jack McGowan	(503) 647-9855
Wildlife Rehab Facilities				
Coordinator	ODFWPortland		ODFW Wildlife Division	(503) 872-5260
Marinas/Port Docks				
Port of Coos Bay	125 Central Ave, Suite 300/PO Box 1215 Coos Bay, OR 97420			(541) 267-7678
Housing/Feeding/Res	•			
ponse Community Support				
Coos Bay	Coos County Emergency Manager	(located in Coquille)		(541) 396-3121
Coos Bay	Emergency Dispatch Center			(541) 396-2106
Interim				
Storage/Permits				
Coos Bay	Newport Petroleum		Jim Hurd	(541) 756-0481
Fishing Fleets & Affiliated Organizations				
For information on VOSS trained fishing vessels, contact USCG D13 DRAT, or MSRC		Fishing vessel operators trained in use of Vessel of Opportunity Skimming Systems		D13: (206) 220-7210 MSRC: (206) 304-1560
Boat Cleaning				
Capability				
Charleston	Charleston Marina & Launch Ramp			(541) 888-2548
Coos Bay	Newport Petroleum			(541) 756-0481
Safe Havens				
Coos Bay	Port of Coos Bay (Only deepwater port in south section of Coast)		Allan RumbaughPort Manager; Dick LauerSause Brothers Ocean Towing	(541) 267-7678

Appendices

Appendix A: Summary of Protection Techniques

Protection	Description	Primary Logistical Requirements	Limitations
Techniques			
ONSHORE			
Beach Berms	A berm is constructed along the top of the mid- inter tidal zone from sediments excavated along the downgradient side. The berm should be covered with plastic or geo-textile sheeting to minimize wave erosion.	 Bulldozer/Motor grader -1 Personnel - equipment operator & 1 worker Misc plastic or geotextile sheeting 	High wave energyLarge tidal rangeStrong along shore currents
Geotextiles	A roll of geotextile, plastic sheeting, or other impermeable material is spread along the bottom of the supra-tidal zone & fastened to the underlying logs or stakes placed in the ground.	 Geotextile - 3 m wide rolls Personnel - 5 Misc stakes or tie-down cord 	Low sloped shorelineHigh spring tidesLarge storms
Sorbent Barriers	A barrier is constructed by installing two parallel lines of stakes across a channel, fastening wire mesh to the stakes & filling the space between with loose sorbents.	Per 30 meters of barrier • Wire mesh - 70 m x 2 m • Stakes - 20 • Sorbents - 30 m ² • Personnel - 2 • Misc fasteners, support lines, additional stakes, etc.	 Waves > 25 cm Currents > 0.5 m/s Tidal range > 2 m
Inlet Dams	A dam is constructed across the channel using local soil or beach sediments to exclude oil from entering channel.	 Loader - 1 Personnel - equipment operator & 1 worker or several workers w/shovels 	 Waves > 25 cm Tidal range exceeding dam height Freshwater outflow
NEARSHORE			
Containment Booming	Boom is deployed in a "U" shape in front of the oncoming slick. The ends of the booms are anchored by work boats or drogues. The oil is contained within the "U" & prevented from	For 150 meters Slick: Boom - 280 m Boats - 2 Personnel - boat crews & 4 boom tenders	 High winds Swells > 2 m Breaking waves > 50 cm Currents > 1.0 m/s
	reaching the shore.	Misc tow lines, drogues, connectors, etc.	
Exclusion Booming	Boom is deployed across or around sensitive areas & anchored in place. Approaching oil is deflected or contained by boom.	Per 300 meters of Boom Boats - 1 Personnel - boat crew & 3 boom tenders Misc 6 anchors, anchor line, buoys, etc.	 Currents > 0.5 m/s Breaking waves > 50 cm Water depth > 20 m

1 June 1996

Protection Techniques	Description	Primary Logistical Requirements	Limitations
Deflection Booming	Boom is deployed from the shoreline away from the approaching slick & anchored or held in place with a work boat. Oil is deflected away from shoreline.	 Single Boom, 0.75 m/s knot current Boom - 60 m Boats - 1 Personnel - boat crew + 3 Misc 3 anchors, line, buoys, recovery unit 	 Currents > 1.0 m/s Breaking waves > 50 cm
Diversion Booming	Boom is deployed from the shoreline at an angle towards the approaching slick & anchored or held in place with a work boat. Oil is diverted towards the shoreline for recovery.	Single Boom, 0.75 m/s knot current Boom - 60 m boats - 1 Personnel - boat crew + 3 Misc 3 anchors, line, buoys, recovery unit	 Currents > 1.0 m/s Breaking waves > 50 cm
Skimming	Self-propelled skimmers work back & forth along the leading edge of a windrow to recover the oil. Booms may be deployed from the front of a skimmer in a "V" configuration to increase sweep width. Portable skimmers are placed within containment booms in the area of heaviest oil concentration.	Self-propelled (None) Towed Boom - 200 m Boats - 2 Personnel - boat crews & 4 boom tenders Misc tow lines, bridles, connectors, etc. Portable Hoses - 30 m discharge Oil storage - 2000 liters	 High winds Swells > 2 m Breaking waves > 50 cm Currents > 1.0 m/s

Source is R. Miller of Clean Sound Cooperative.

2 1 June 1996

Appendix B: Geographic Response Plan Contributors

Local Representatives

Port of Coos Bay

Mr. Mike Gaul

Industry and Response Contractors

Global Environmental

Mr. Thom Davis

Marine Spill Response Corporation

Mr. Mike LaTorrre Mr. Jim Haugen

Sause Brothers

Mr. Dick Lauer

Federal Representatives

NOAA

Dr. Sharon Christopherson

Mr. Gary May

Department of Interior

Mr. Chuck Polityka Mr. Preston Sleeger

USFWS

Ms. Colleen Henson

Mr. Roy Lowe

United States Coast Guard

LTJG Robert Myles

State Representatives

Oregon Department of Environmental Ouality

Mrs. Elizabeth Dimmick

Mr. Ruben Kretzschmar

Mr. Paul Slyman

Mr. Jack Wylie

Oregon Department of Fish and Wildlife

Mr. Dave Fox

Mr. Dale Nelson

Mr. Greg Robart

Mr. John Toman

Mr. Dan Van Dyke

Oregon State Service Center for Geographic Information Systems

Mr. Richard Crucchiola Mrs. Patti Haggerty

Mr. Lee Row

Mr. Mark Kinslow

South Slough National Estuarine Reserve

Mr. Mike Graybill

<u>Other</u>

Coos Bay Geographic Response Plan

B-2 1 June 1996

Appendix C: Geographic Response Plan Comments/Corrections/Suggestions

If you have any questions regarding this document or find any errors with this document please notify one of the following agencies:

- USCG Marine Safety Office Puget Sound, Planning Department
- USCG Marine Safety Office Portland, Planning Department
- Washington Department of Ecology, Central Programs Branch
- Oregon Department of Environmental Quality, Land Quality Division
- Idaho Emergency Response Commission
- Environmental Protection Agency Region 10

You can use the tear out suggestion form or contact an agency using one of the following:

Phone Numbers:

USCG MSO Puget Sound	(206) 217-6213
USCG MSO Portland	(503) 247-4015
Washington DOE	(360) 407-6971
Oregon DEQ	(503) 229-5716
Idaho ERC	(208) 334-3263
EPA	(206) 553-6901

E-mail Address:

USCG RPMatthews@pacnorwest.uscg.mil

Oregon DEQ Wylie.Jack@deq.state.or.us

Address:

Commanding Officer	Washington Department of Ecology	Office of The Governor
United States Coast Guard	Central Programs Branch	Idaho Emergency Response Commission
MSO Puget Sound	Policy and Planning Section	1109 Main
Planning Department	P.O. Box 47600	Statehouse
1519 Alaskan Way South	Olympia, WA 98504	Boise, ID 83720-7000
Seattle, WA 98134-1192		
Seattle, WA 98134-1192		

Commanding Officer
United States Coast Guard
MSO Portland
Planning Department
6767 North Basin Ave
Portland, OR 97217-3992

Oregon Department of Environmental
Quality
Land Quality
Binvironmental Protection Agency
Emergency Response Branch
1200 Sixth Avenue
Seattle, WA 98101

Coos Bay Geographic Response Plan

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Geographic Response Plan

Comments/Corrections/Suggestions

Directions: (Make a copy of this before you fill in so you have extra forms.)

Fill in your name, address, agency, and phone number. Fill in the blanks regarding the location of information in the plan being commented on. Make comments in the space provided. Add extra sheets as necessary. Fold in thirds so the address label is visible and tape closed (don't staple).

Name:		Title:	Agency:	
Address:				
City:		_ State/Province:_	Zip/Postal Code:	
Phone: ()		_		
Location on page (chapter, section, paragraph) (e.g. 2.1, paragraph 3):				
Comments:				

U.S. Department of Transportation U.S. Coast Guard

Marine Safety Office Portland Planning Department 6767 N. Basin Ave. Portland, OR 97217-3992

> OFFICIAL BUSINESS PENALTY FOR PRIVATE USE \$300

> > Northwest Area Committees c/o Marine Safety Office Portland Planning Department 6767 N. Basin Ave. Portland, OR 97217-3992