Oil Spill Containment

Programmatic Biological Evaluation
Oil Spill Containment
Version: May30 ~~11~~, 2001

1. Summary of Activity:

a. In All Fresh Water areas in Washington State *excluding* the Columbia River mainstem: Activities required for the containment (but not cleanup) of oil and hazardous substances [which are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300)], including placement of booms and anchors, provided that: work is done within the approved work window, no work is done in or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds), no large woody debris is removed, no new piling is driven, work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR Part 112.3 and any existing State contingency plan, the Regional Response Team (if one exists in the area) concurs with the proposed containment, booms are anchored securely, anchors are installed so that anchor and anchor lines do not drag, booms will not ground out, and boom and anchor system will be placed so that neither boom, anchor, nor anchor line will result in streambed scour. For emergency response actions, the lead federal agency (EPA, US Coast Guard, or the Corps for State response actions) will coordinate with NMFS and USFWS under "emergency procedures." All other actions that do not fit the terms of this informal programmatic consultation will be reviewed through individual informal or formal ESA consultation. [from NWP 20]

b. In the Columbia River mainstem *including* Snake River and Baker Bay: Activities required for the containment (but not cleanup) of oil and hazardous substances [which are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300)], including placement of booms and anchors, provided that: work is done within the approved work window, no work is done in or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds), no large woody debris is removed, no new piling is driven, work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR Part 112.3 and any existing State contingency plan, the Regional Response Team (if one exists in the area) concurs with the proposed containment, booms are anchored securely, anchors are installed so that anchor and anchor lines do not drag, ~~and~~ booms will not ground out, and boom and anchor system will be placed so that neither boom, anchor nor anchor line will result in streambed scour. ~~.~~ For emergency response actions, the lead federal agency (EPA, US Coast Guard, or the Corps for State response actions) will coordinate with NMFS and USFWS under "emergency procedures." All other actions that do not fit the terms of this informal programmatic consultation will be reviewed through individual informal or formal ESA consultation. [from NWP 20]

c. In All Marine/Estuarine Waters in Washington State *excluding* Baker Bay: Activities required for the containment (but not cleanup) of oil and hazardous substances [which are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300)], including placement of booms and anchors, provided that: work is done

within the approved work window, no work is done in or adjacent to vegetated shallows, no large woody debris is removed, no new piling is driven, work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR Part 112.3 and any existing State contingency plan, the Regional Response Team (if one exists in the area) concurs with the proposed containment, booms are anchored securely, anchors are installed so that anchor and anchor lines do not drag, ~~and~~ booms will not ground out, and boom and anchor system will be placed so that neither boom, anchor, nor anchor line will result in streambed scour. ~~–~~ For emergency response actions, the lead federal agency (EPA, US Coast Guard, or the Corps for State response actions) will coordinate with NMFS and USFWS under "emergency procedures." All other actions that do not fit the terms of this informal programmatic consultation will be reviewed through individual informal or formal ESA consultation. [from NWP 20]

2. Programmatic Description: Nationwide Permit 20 (NPW 20) may authorize the containment and cleanup of oil spills. This programmatic biological evaluation covers only those activities associated with containment of oil spills. For emergency response actions, the lead federal agency (EPA, US Coast Guard, or the Corps for State response actions) will coordinate with NMFS and USFWS under "emergency procedures." All other actions that do not fit the terms of this informal programmatic consultation will be reviewed through individual informal or formal ESA consultation.

3. Project Location: In all fresh and marine/estuarine waters only in the counties of Washington State where the National Marine Fisheries Service and U.S. Fish and Wildlife Service have concurred that the project is not likely to adversely affect listed fish species and designated critical habitat and will not jeopardize proposed fish species or destroy or adversely modify proposed critical habitat.

4. Project Description: Work consists of placement of booms and anchors, and other like methods to deploy sorbent materials, to contain spills of oil and hazardous substances which are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300). Emergency actions that require placement outside of the approved work windows and/or placement in vegetated shallows are not covered under this programmatic biological evaluation. For emergency response actions, the lead federal agency (EPA, US Coast Guard, or the Corps for State response actions) will coordinate with NMFS and USFWS under "emergency procedures." Cleanup of oil or hazardous substances, including placement of surfactants, also is not covered under this programmatic biological evaluation. When an oil spill occurs, oil may sink or float on the surface, depending on the type of oil. That which floats can foul the gills of fish and have other physical impacts on birds and mammals. In addition, oil is a "carrier' substance. That is, it carries chemicals like dioxin, PCBs, pesticides, and the like. These chemicals also can have extremely adverse affects on fish and other wildlife. Thus, once a spill is identified one of the first things to happen is placement of a containment boom, either anchored to shore or tethered to anchors placed on the bottom of the waterbody. Thus, there are two main types of booms – nearshore booms and offshore booms. The nearshore ones are used to contain small seeps from shoreline banks, as well as spills. Additionally, there are different designs of sorbent

pads for different uses. For example, sometimes larger, flatter pads are used for both containment and cleanup of spills concurrently, but generally these do not need Corps permits - as they are relatively quickly removed from the water and not left in place for any length of time.

5. Project Construction Description:[1]

a. Equipment used: Both nearshore and offshore booms typically consist of a tidal boom, anchor blocks, floats, rope, chain, chain hardware, and sorbent boom. The entire length of the tidal boom varies depending on the spill. But the tidal boom itself comes in 50 foot segments. The tidal boom is separated into three chambers: 14-inch diameter buoyance chamber filled with foam rubber, and two 12-inch diameter ballasts on either side filled with water (500 gallons per side). The entire tidal boom is enclosed in a hard plastic. The anchor blocks are ecology blocks (halved or whole depending on location of placement, currents, etc). The booms may be anchored to shore with guy lines attached to the ecology blocks or floated in deeper waters with lines attached to anchors placed on the bottom. The floats are secured on the boom at the location of the anchor placements. Floats are 24-inch diameter hard plastic filled with foam. The rope is ½" to 3/8" polypropylene line. The chain varies from ½" or ¼" galvanized steel and the chain hardware (installed on the anchor and tidal boom) is 5/8" galvanized steel screw pin shackles, snap hooks and open spelter sockets. The sorbent boom is 5- to 8-inch diameter booms in 10 feet segments made of "melt-blown" polypropylene. The 5-inch diameter boom absorbs 32 gallons of fluid and the 8-inch diameter boom absorbs 74 gallons of fluid. Larger diameter sorbent booms may be used for extreme spills (i.e. tanker spills). This material is hydrophobic (repels water) but attracts oil and any chemicals carried by it.

Some booms are designed to ground out during low water. For these booms, the tidal boom and sorbent material are of similar size to the floating booms but the entire boom assemblage is anchored on land (with ecology blocks or the like) versus in-water anchors. Booms that ground out during low water are not covered under this informal programmatic consultation. Work of this type must go through individual informal or formal ESA consultation.

b. Access: Access to shore for placement of nearshore booms is typically via existing roads, wharves, or piers, and typically occurs at high tide when the booms can be floated into place and positioned by hand, small dingy or boat (maximum 16-feet in length), or crane staged in the uplands or on an existing overwater structure (i.e. pier). Placement of the anchors may also be via helicopter (maximum length 60 feet) when there is not ready shore access. Tidal booms are not typically placed by helicopter because even dry, they way 1,000 pounds. Access for placement of offshore booms is usually via small vessel (16- to 25-feet in length). For larger spills, a barge (150- to 250-feet in length) and two tugs (45- to 65 feet in length) are used.

[1] Information about project construction methods provided by personal communication with Jonathan Maas and Glen Turei, Corps of Engineers, Technical Services Branch, and Foss Environmental on May 3, 2000.

c. Work Corridor: The work corridor includes the area around the linear booms where vessels will be operating during placement and the area on the shoreline where equipment may be operating if the booms are placed from the upland areas. If placed from the shoreline, the work corridor is a maximum width of 40 feet along the shoreline. Typically this is much smaller, as the equipment will be staged at one location on the shoreline or existing structure and then the booms are moved into place by hand or from a boat.

d. Placement Time: The initial placement and full removal of the tidal boom with anchors and sorbent boom may take up to a week. The removal and replacement of the sorbent boom (depending on length and location) takes up to two days.

e. Disposal of Saturated Booms or Pads: At some point (which varies with the size of the spill and nature of the oil), the sorbent pads or booms become saturated. This can vary from hours for emergency spills or up to 6 months or so for the sorbent booms that contain slow leaking seeps in nearshore areas. They are then removed. Removal is by hand. If in the nearshore, the technician will access the boom using chest waders, a small dinghy (10 feet in length) or a single-man float tube (inner-tube like float where the technician sits inside the tube). If offshore, a small open vessel (16- to 25-feet in length) is used. The sorbent material is cut from the tidal boom and snaked into the vessel or into plastic bags and then brought to shore. Disposal methods vary based on the contaminants collected by the sorbent boom. If the contaminants are at acceptable Washington State Ecology and/or EPA levels for disposal at landfills, the sorbent booms may be stockpiled in the uplands in plastic bags and then covered with visqueen until relocated to an appropriate landfill. This is often the case when either the sorbent booms are changed frequently, or when it is more efficient to wait until there is a full load of material to dispose. If contaminants are not at acceptable levels for disposal at regular landfills, booms are disposed as regulated by Washington State Ecology and/or EPA.

6. Action Area Description: The action area includes all fresh waters and marine/estuarine waters in Washington State. The action area for the individual project includes the boom assemblage (tidal boom, sorbent boom, and associated anchors and line), the area the boom is containing, the access, staging and stockpiling areas for boom placement (either crane placement in the uplands or on and existing over-water structure, or the area the vessel and/or barge and tug will be maneuvering in to position the boom), a 25-foot radius[2] around the anchors for potential temporary water quality impacts, and if a helicopter is used, a diameter of 300 feet and a depth of 2 feet from water surface for potential temporary water quality impacts (increased turbidity) and a

[2] The determination of impact area for potential water quality impacts is based on personal communication with John Malek, Sediment Management, Environmental Protection Agency, on May 10, 2000. Mr. Malek stated that typically turbidity impacts of a pile driving, anchor placement or the like would not exceed a 15-foot radius, a 25-foot radius is the maximum extent of impact, regardless of substrate type and currents at a project site.

diameter of 1000 feet for potential noise impacts associated with the helicopter operation.[3]

7. Species and Habitat Information:

a. Species Present: [4]

1. For all Fresh Waters in Washington State, *excluding* the Columbia River mainstem and its tributaries: Puget Sound chinook salmon - status threatened (designated critical habitat); Hood Canal chum salmon - status threatened (designated critical habitat); Coastal/Puget Sound bull trout - status threatened; Ozette Lake sockeye salmon - status threatened (designated critical habitat); SW Washington/Columbia River/Coastal cutthroat trout - proposed threatened; and, Puget Sound coho salmon - candidate species.

2. For the Columbia River mainstem and its tributaries in Washington State, *including* the Snake River and Baker Bay: Snake River sockeye salmon - status endangered (designated critical habitat); Snake River spring/summer chinook salmon - status threatened (designated critical habitat); Snake River fall chinook salmon - status threatened (designated critical habitat); Snake River steelhead - status threatened (designated critical habitat); Columbia River chum salmon - status threatened (designated critical habitat); Columbia River bull trout – status threatened; Lower Columbia River steelhead – status threatened (designated critical habitat); Lower Columbia River chinook salmon – status threatened (designated critical habitat); Middle Columbia River steelhead – status threatened (designated critical habitat); Upper Columbia River steelhead – status endangered (designated critical habitat); Upper Columbia River spring chinook salmon – status endangered (designated critical habitat); Upper Willamette River chinook salmon – status threatened (designated critical habitat); Upper Willamette steelhead – status threatened (designated critical habitat); and, SW Washington/Columbia River/Coastal cutthroat trout – proposed threatened.

3. For all Marine/Estuarine waters in Washington State, *excluding* Baker Bay: Puget Sound chinook salmon, status threatened (designated critical habitat), Hood Canal chum salmon, status threatened (designated critical habitat), Coastal/Puget Sound bull trout, status threatened, Ozette Lake sockeye salmon, status threatened (designated critical habitat), SW Washington/Columbia River/Coastal cutthroat trout, proposed threatened, and, Puget Sound coho salmon, candidate species.

b. Species Utilization: Refer to Appendix B - Species Life Histories.

[3] Potential turbidity and noise impacts associated with helicopter operation is based on personal communication with John Pell, Navigation Specialist, Corps of Engineers, Regulatory Branch and Eric Winters, Chief of Floating Plan, Corps of Engineer, Navigation Branch. Mr. Pell and Mr. Winters both have experience with helicopter operations from military service with the U.S. Coast Guard and U.S. Army, respectively.

[4] Other listed or proposed plants or animals may occur in the project area. However, this document addresses only listed or proposed fish species. Review of impacts to other listed or proposed species will be done on a case-by-case basis.

8. Activity History and Status: The Corps of Engineers authorizes the placement of booms for oil spill cleanup under NWP 20. NWP 20 does not require notification to the Corps as long as the applicant abides by the general and special conditions of the NWP. Any record the Corps would have of these activities would be if the applicant chose to notify the Corps even though it was not required. The Corps ran a report of how many NWP 20 verifications have been issued since 1991. According to the Corps database, NWP 20 has only been used twice by the Seattle District: 9/2/94 and 7/18/91. The spill in September 1994 is included in Table 1. Because Table 1 only includes information from 1992 to present, the July 1991 spill is not include.

The Corps obtained additional oil spill data from the Washington State Department of Ecology's Spill Program for the years 1992 to 2000. The information provided by Ecology only gives the number of oil spills in excess of 20 gallons and the total amount of spill in gallons for each activity. There is no documentation of the type of equipment used to clean-up the spill. The spills are categorized as freshwater or marine and in the following regions: South Puget Sound, North Puget Sound, and Columbia River/Outer Coast.

Because no notification is required for NWP 20, the Corps acknowledges that tracking of oil spill cleanup activities has been inconsistent and infrequent. In light of the recent listings under ESA, the Corps proposes to track these activities as outlined in the "Programmatic Biological Evaluation Notification and Tracking Description". The following table shows the number of spills and the cumulative amount spilled in various regions of Washington State. Since 1991, the only spills to date in Washington State to exceed 8,000 gallons were the 1999 Olympic Pipeline explosion in Bellingham (277,200 gallons), the 1991 Tenyo Maru in Cape Flattery (100,000 gallons), and the 1991 Texaco in Fidalgo Bay (40,000 gallons), and the 1994 Crowley 101 in the San Juan Islands (26,900 gallons). In comparison, the largest spill on record nationally was caused by the Exxon Valdez in Alaska, totaling 16 million gallons.

Table 1: Historical Record of Oil Spill Reports from Washington Department of Ecology

Region	**1992-1994**		**1995**		**1996**		**1997**		**1998**		**1999**	
	No	Amt	No	Amt	No	Amt	No	Amt	No	Amt	No	Amt
S. Puget Sound												
Fresh	13	5091	5	370	5	667	3	280	1	86	2	375
Marine	21	16870	10	3415	9	5140	4	315	8	12791	6	474
N. Puget Sound												
Fresh	3	289	0	0	2	1050	0	0	1	300	0	0
Marine	5	27895	7	413	7	1842	5	2027	5	366	4	763
Columbia River Or Outer Coast												
Fresh	5	5578	3	197	6	2091	10	7800	5	515	5	465
Marine	2	3040	0	0	1	769	2	135	1	50	1	800
TOTAL	**49**	**58763**	**25**	**4395**	**30**	**11559**	**24**	**10557**	**21**	**14108**	**18**	**2877**

9. Environmental Baseline: Refer to Appendix C: Environmental Baseline.

10. Effects of the Action:

a. Direct Effects: Direct effects include potential impacts to intertidal areas upon placement of nearshore sorbent booms. For both nearshore and offshore booms, direct beneficial effects also include containment of oil and other hazardous substances.

1. Water quality (Temperature, Turbidity, Chemical Contamination): Under this informal programmatic consultation, all work is done in approved work windows when listed**,** proposed or forage fish are least likely to be present, the booms are be anchored securely, and the anchor and anchor lines are installed so that they do not drag. Temporary water quality impacts may occur with the placement or removal of the booms and associated anchors. When the anchor drops and a small amount of sediment is temporarily suspended in the water column. When possible, booms are placed during "slack tide" when the water is relatively still. Because the anchor drops in a matter of seconds and settles, sediment suspension is unlikely to exceed a radius of 25 feet[5] from the anchor and would settle out of the water column to background levels in no more than an hour, depending on sediment type and currents. If the anchor is not installed properly or the weight is not sufficient, the anchor could drag along the substrate, causing additional sediment suspension. The Corps' experience is that this is rare. No changes in temperature are likely to occur from placement of either nearshore or offshore booms. Based on the design and function of the booms, oil leaching into the water from a boom that has absorbed its full capacity is discountable. The booms are changed at regular intervals to ensure that booms are functioning properly. Once place, the booms will act to absorb chemical contamination, and thus have a beneficial affect. For example, the sorbent materials attract benzene and some of the more soluable components in oil, keeping them from becoming soluable over time. When placed as described, adverse impacts from placement of booms on water quality are seen to be insignificant and/or discountable.

2. Water quality (propwash, spud placement, and helicopter activity): Under this informal programmatic consultation, work will be done in the approved work windows when listed**,** proposed or forage fish are least likely to be present. The boat placing or removing the boom and/or anchors may cause some sediment suspension associated with propwash. The boat is stopped or moving extremely slowly during boom and anchor placement so the disturbance with the propwash is extremely small. Turbidity associated with the boat activity would settle out of the water column to background levels in no more than an hour, depending on depth, sediment type and currents. If a tug and barge are used, the activity is more likely over deeper waters (20 feet at high water) so disturbance to the substrate may not occur. The tug and barge method in deeper waters has the boom placed on the barge and then threaded into place by two small tugs. If in shallow water, the tug is used to bring in and retrieve the barge (positioning takes a maximum of 1 hour for both placement and retrieval), a small vessel (maximum 25 feet in length) is then used to thread the boom in place. In order to

[5] See footnote 2 under Action Area.

minimize expansion of the oil spill, all efforts are made to minimize water turbidity as well. When at all possible, work is done in slack tides. Turbidity associated with propwash of the tug and the spud or anchor placement to secure the barge would take no more than 1 hour after positioning is complete to settle out of the water column to background levels, depending on depth, sediment type and currents. Helicopter activity may result in increased water turbidity. As noted in action area, the anticipated area of affect when helicopters are used for anchor placement is a 300 foot diameter over the water, centered on the belly of the helicopter and to a depth of 2 feet below the water surface. When helicopters are used, the water depth is over 2 feet deep (5 feet plus). There is little likelihood that the helicopter will result in increase turbidity at these depths. If any turbidity were to inadvertently occur, the sediment would settle out of the water column to background levels in no more than an hour, depending on depth, sediment type and currents. When placed as described, all temporary water quality impacts are insignificant and/or discountable.

3. Habitat Access (Physical barriers): Under this informal programmatic consultation, all work is done in the approved work windows when listed, proposed or forage fish are least likely to be present, no work is done in or adjacent to vegetated shallows, and booms will not ground out. During placement of the boom, the barge may cause temporary disturbance to fish migration patterns as the fish migrate into deeper waters to avoid the barge. With the placement of the boom taking no more than a week and the work being done in the approved work windows, disturbance to migratory patterns of listed, proposed or forage fish will be minimal and temporary. When a helicopter is used for anchor placement, the 300-foot diameter area experiencing temporary water turbidity appears similar to “wind chop” on the surface. The helicopter may result in fish disbursing from the 300-foot diameter area, into adjacent waters. The helicopter placement of the anchors takes a maximum of 1 hour per anchor (usually significantly less). Any disturbance to fish migration from the increased “chop” of the helicopter would be temporary and discountable. When work occurs as described, impacts to habitat access from placement of booms are insignificant and/or discountable.

4. Habitat Health (noise): Under this informal programmatic consultation, work is done in the approved work windows when listed, proposed or forage fish are least likely to be present. The helicopter activity may result in noise impacts at a 1000-foot diameter, centered on the belly of the helicopter and at levels of 100-125 db above water. The helicopter noise is a constant, loud noise with a sudden onset.[6] No studies on noise impacts to fish by helicopters were identified. However, juvenile and adult salmonids have been documented in experimental conditions to rarely respond to sudden or loud stimuli though a few experiments showed that pulsing noise (such as pile driving) would result in a “startled” reaction or general avoidance. (Feist, 1991). Since the work is done when the fish are least likely to be present, any potential impacts to fish due to noise are insignificant and/or discountable.

5. Habitat Health (oil spill): The proposed placement of the boom is to assist in the clean up of the oil spill. The boom will not generate additional expansion of the spill but

[6] See footnote 3 under Action Area.

will consolidate and remove the spilled fluid. The sorbent booms are replaced once they have absorbed the full amount possible (if not beforehand). The sorbent booms and disposed as directed by Washington State Department of Ecology and/or EPA at locations that can adequately dispose of or treat the contaminants removed. Oil spills in marine waters are likely to affect salmonids through impacts to their forage species versus the fish directly. Marine/estuarine habitats most sensitive to oil pollution are areas with the lowest physical energy, such as estuaries, tidal marshes, lagoons, and seafloor sediments. Once the oil is present in these areas, there is not adequate energy or wave action to repurify the areas. (NMFS, 1998b). Juvenile and adult fish are generally able to avoid oil spills in open seas, but in nearshore areas, the spills may impair or impact estuarine nursery areas. In freshwater areas, the concern is potential adverse impacts to eggs, larvae and early juvenile stages of fish, which have a significantly smaller toxicity threshold due to petroleum than adult fish. (NPFMC, 1997). As oil mixes with the water column, it can reach the substrate directly or be carried on suspended sediments in the water column. Once mixed with the substrate, the oil may persist for years and become a long-term source of pollution introduced into benthic organisms (NPFMC, 1997). Capturing as much oil on the water surface as possible through the use of sorbent booms, minimizes the potential contamination of the substrate as well as somewhat clean the sea surface microlayer, where in marine areas pelagic spawning fish may have deposited eggs. This programmatic biological evaluation covers only the placement of the boom. The cleanup action itself will require ESA consultation with the Services by the initiating agency (either EPA or the US Coast Guard). Cleanup actions requiring Corps permits cannot proceed until the U.S. Environmental Protection Agency or U.S. Coast Guard has finalized the ESA consultation. Impacts to habitat health from placement of booms are seen to be insignificant and/or discountable.

6. Habitat Health (Forage Fish): Under this informal programmatic consultation, work is done in the approved work windows when listed, proposed or forage fish are least likely to be present, no work is done in or adjacent to vegetated shallows, booms are anchored securely, anchors are installed so that anchor and anchor lines do not drag, and booms will not ground out. Vegetated shallows provide refuge for juvenile salmonids and support forage species that the listed or proposed fish species are dependent upon, such as invertebrates for juvenile salmonids and forage fish for adult salmonids. For example, herring spawn in eelgrass beds in marine areas. Boat activity near or adjacent to vegetated areas has been documented to damage and/or destroy the vegetated areas. (NOAA, 1998) The substrate may support benthic invertebrates that juvenile listed or proposed fish species are dependent upon for forage. When the placed as described, impacts to habitat health and forage fish are insignificant and/or discountable.

7. Habitat Health (Refugia and Substrate): This programmatic biological evaluation covers those activities where, in fresh waters including the Columbia River, large woody debris (LWD) is not removed from the beach or bank for the boom placement and boom and anchor systems will be placed so that neither boom, anchor, nor anchor lines will result in streambed scour. ~~.~~ In marine/estuarine waters excluding Baker Bay, no natural

beach complexity features will be removed. LWD and/or natural beach complexity features provide refuge for juvenile fish species from predators. If LWD and/or natural beach complexity features need to be removed from the site for cleaning, that activity must be addressed under the EPA and/or US Coast Guard ESA consultation for the oil spill cleanup. Using these methods of installation including appropriate placement of the booms, anchors and anchor lines so that there is no scouring of the streambed, adverse impacts associated to refugia and substrate will be insignificant and/or discountable.

b. Indirect Effects: Effects that may accrue from the work that are later in time primarily consist of the beneficial effects of containment of substances that are extremely hazardous to all fish and wildlife, let alone threatened and endangered fish. The sorbent booms act to not only contain but also somewhat clean the sea surface microlayer, where in marine areas pelagic spawning fish may have deposited eggs.

c. For all other pathways and indicators not specifically mentioned above, the activity will not alter the present environmental baseline.

d. Determination of Effect: Oil spill containment may affect but is not likely to adversely affect listed fish species and designated critical habitat identified above, and will not jeopardize proposed fish species or destroy or adversely modify proposed critical habitat identified above, provided that:

1. In all Fresh Waters *excluding* the Columbia River mainstem:

- Work is done within the approved work window.
- No work is done in or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds).
- No large woody debris is removed.
- No new piling is driven.
- Work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR Part 112.3 and any existing State contingency plan.
- The Regional Response Team (if one exists in the area) concurs with the proposed containment.
- Booms are anchored securely.
- Anchors are installed so that anchor and anchor lines do not drag.
- Booms will not ground out.
- Boom and anchor system will be placed so that neither boom, anchor nor anchor line will result in streambed scour.
- For emergency response actions, the lead federal agency (EPA, US Coast Guard, or the Corps for State response actions) will coordinate with NMFS and USFWS under "emergency procedures."
- All other actions that do not fit the terms of this informal programmatic consultation will be reviewed through individual informal or formal ESA consultation.

2. In the Columbia River mainstem *including* Snake River and Baker Bay:

- Work is done within the approved work window.

- No work is done in or adjacent to vegetated shallows (except where such vegetation is limited to State-designated noxious weeds).
- No large woody debris is removed.
- No new piling is driven.
- Work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR Part 112.3 and any existing State contingency plan.
- The Regional Response Team (if one exists in the area) concurs with the proposed containment.
- Booms are anchored securely.
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- For emergency response actions, the lead federal agency (EPA, US Coast Guard, or the Corps for State response actions) will coordinate with NMFS and USFWS under "emergency procedures."
- All other actions that do not fit the terms of this informal programmatic consultation will be reviewed through individual informal or formal ESA consultation.

3. In all Marine/Estuarine waters *excluding Baker Bay:*

- Work is done within the approved work window.
- No work is done in or adjacent to vegetated shallows.
- No large woody debris is removed.
- No new piling is driven.
- Work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR Part 112.3 and any existing State contingency plan.
- The Regional Response Team (if one exists in the area) concurs with the proposed containment.
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