Endangered Species and the use of a Biological Opinion During Spill Response

By Matthew P. Bernard USCG REM, ASP, Russ Strach NMFS, Christina Fahy NMFS, Jeremy Rusin NMFS, LCDR Travis C. Coley USCG, Dale Brege, NMFS, Beth Sheldrake EPA, Demian Bailey NOAA OR&R.

ABSTRACT: Endangered Species and the use of a Biological Opinion During Spill Response:

In 2001, six Federal agencies signed an Interagency Memorandum of Agreement (MOA) regarding Oil Spill Planning and Response Activities under the Federal Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act (ESA). The agencies participating in the MOA include the U.S. Coast Guard (USCG), the U.S. Environmental Protection Agency (EPA), the Department of the Interior's Office of Environmental Policy and Compliance and the U.S. Fish and Wildlife Service (USFWS), and the National Oceanic and Atmospheric Administration's – National Marine Fisheries Service (NMFS) and National Ocean Service (NOS).

In the MOA, NMFS and USFWS determined that oil spill response activities qualify as an emergency action, as defined by regulations implementing the ESA in 50 CFR 402.02. As such, the emergency continues to exist until the removal operations are completed and the case is closed in accordance with 40 CFR 300.320(b).

In order to reduce the burden of processing emergency consultation paperwork during routine oil spill clean-up actions that occur in the Northwest, the USCG and the EPA initiated formal consultation (pursuant to 50 CFR 402.14(c)) with the Northwest Regional Office of NMFS on November 12, 2002, and submitted a programmatic biological assessment (BA). The BA

assessed the effects of most response activities on ESA-listed species under NMFS' jurisdiction that may be present in the inland waters of Oregon, Washington, and Idaho (salmonids) and the offshore waters out to 200 nautical miles (salmonids, large whales, Steller sea lion, and sea turtles). On November 6, 2003, NMFS completed and signed the nation's first programmatic Biological Opinion (BO) on oil spill response activities. The Biological Opinion was developed in order to minimize the need to conduct emergency consultations during every oil spill that occurs in the Northwest, to evaluate the proposed spill response actions that could occur, and to predetermining where there might be possible effects of these response actions on listed species under NMFS' jurisdiction. While NMFS determined that the proposed oil spill response actions were not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat, the agency included reasonable and prudent measures with non-discretionary terms and conditions to ensure protection of the species and critical habitat for most response methods that are used. The terms and conditions now serve as a "job aid" for oil spill responders in the Northwest and ensure that effects on listed species and their critical habitat are minimized during a response.

Some disagreement exists, however, regarding the value of conducting formal consultation prior to an actual oil spill event. In addition to the upfront staff time and related costs, there is always the possibility that an incident-specific BA and BO may still be required. Moreover, the USCG and EPA have not yet initiated an analogous programmatic consultation with the US Fish and Wildlife Service (USFWS), so incident-specific consultations are ongoing for ESA-listed species under their jurisdiction. This paper presents the background, process, and outcomes (including pros and cons) in the development of a successful programmatic consultation on oil spill response activities.

1. HISTORY AND BACKGROUND

1.1. Northwest Area Contingency Plan

Between 1977 and 1990, the US Coast Guard (USCG) tracked approximately 105,000 oil spills in coastal and navigable waters, including the Great Lakes and inland regions. Ninety-five percent of these spills were less than 1,000 gallons, and 74% were less than 50 gallons (Michel *et al.* 1994), indicating that spills are relatively frequent but typically small in volume. There are three objectives of oil spill response regardless of the volume: (1) protect human life; (2) prevent, where possible, or minimize the impacts associated with spilled oil; and (3) enhance recovery. In order to accomplish these objectives, three tactics may be employed. The first tactic is protection: exclude oil from sensitive habitats or reduce the amount that enters the habitat. The second tactic is recovery: remove floating oil from the surface of the water. The third tactic is cleanup: remove stranded oil from shoreline habitats using physical, chemical or enhanced biological means. In most spill response situations, protection and recovery of oil are the immediate goals, although all three can be done simultaneously.

The Northwest Area Contingency Plan (NWACP), developed by the Northwest Area Committee and Region 10 Regional Response Team (RRT 10), serves as the primary guidance document for coastal and inland responders in Washington, Oregon, and Idaho for oil spills and hazardous materials spills. The effective date of the latest NWACP is February 28, 2005; it constitutes the summation of policies and procedures for two USCG Captain of the Port (COTP) Zones (Puget Sound and Portland), EPA Inland Region 10 (excluding Alaska), and the States of Oregon,

Idaho, and Washington. The NWACP is consistent with the National Contingency Plan (NCP) and as been adopted as the RRT 10 Regional Contingency Plan. It can be found in at the following website: <u>http://www.rrt10nwac.com/</u>

In addition to the NWACP, twenty-eight Geographic Response Plans (GRPs) exist for the waters of Washington and Oregon and Idaho, while they are considered part of the NWACP, they are geographically specific and revised separately. The GRPs represent the collective input of natural resource trustee agencies and spill response organizations regarding environmental protection strategies for a given area. They contain maps and descriptions of sensitive natural resources, identify strategies to protect those resources, and set priorities for various spill scenarios. In general, the GRPs for the Northwest provide guidance on exclusion and deflection booming strategies. Because few of the GRPs contain the most current information on the seasonal variability of the population and location of ESA- listed species, as part of the Section 7(a)(2) consultation with NMFS, the action agencies have assembled supplemental tables and maps.

The NWACP also contains the "Northwest Area Shoreline Countermeasures Manual and Matrices" (NWSCM), which describes Northwest area-specific habitat and the response strategies that are recommended or conditionally recommended, should an oil spill occur in or near a particular habitat (e.g. exposed rocky shorelines, tidal flats, etc.). Developed by the Northwest Area Committee in February 1995, the NWSCM continues to be revised. In addition, the NWACP contains a "Dispersant Use Policy," which guides all dispersant use activities and establishes standards and guidelines for appropriate applications. Lastly, the NWACP includes

an "In-situ Burning Policy," which defines the conditions under which burning may occur on a pre-approved or case-by-case basis, and where it is not allowed. The dispersant use and in-situ burning policies were also considered part of the proposed Federal action and addressed in the November 6, 2003 BO.

After four months of intensive BA development, which concluded in November 2002, the 13th District (D13) USCG and the Region 10 EPA Emergency Response Program finalized the BA. Development of the BA involved consolidating the NWACP policies and plans to succinctly describe the proposed Federal action, and conducting an analysis of effects of spill response actions on NMFS' ESA-listed species and their habitat. The USCG and EPA, in cooperation with NOAA Hazmat, held regular technical meetings with NMFS to discuss and agree on the contents of a draft BA. The USCG also contracted a temporary staff person to help with the analysis. NMFS supported the draft BA analysis by assigning one of their staff to participate full time in the development process until the consultation documents were finished. Table 1 summarizes key deliverables and dates that occurred during the process which may be a useful timeline for others who may be planning to carry out a similar assignment in others parts of the country.

Deliverable Date	
Documents and Related Training	
Table 1. ESA Section / Timeline Depicting Completion Dates for Programmatic Consulta	ition

Deliverable	Date
USCG submitted a species request list to NMFS.	September 23, 2002
USCG submitted a request to initiate formal, programmatic ESA	November 12, 2002
consultation and programmatic Magnuson-Stevens Fishery Conservation	
and Management Act (MSA) EFH consultation on the proposed action.	
NMFS released a discussion draft BO including reasonable and prudent	June 13, 2003
measures and terms and conditions. The USCG and EPA provided	
comments and NMFS revised the draft BO accordingly.	
NMFS completed and signed the BO.	November 6, 2003
The USCG, EPA, NMFS, and NOAA Hazmat conducted interagency	February 5, 2004

training on the programmatic BA and BO to contractors, agency staff and	(continuing)
managers, and other involved personnel.	

1.2. Federal Requirements Under the Endangered Species Act

The Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. § 1531 et seq.), provides the primary legal framework for the conservation and recovery of species in danger of or threatened with extinction. One of the primary purposes of the ESA is "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, and to provide a program for the conservation of such endangered species and threatened species and threatened species..." (16 U.S.C. § 1531(b)).

Section 7(a)(2) of the ESA requires that each Federal agency shall ensure that "any action authorized, funded, or carried out by such agency... is not likely to jeopardize the continued existence of¹ any endangered species or threatened species or result in the destruction or adverse modification" of critical habitat₅ of such species. When the action of a Federal agency *may affect* a listed species or its critical habitat, that agency is required to consult with either NMFS or the United States Fish and Wildlife Service (USFWS), depending upon the listed species or critical habitat that may be affected. Section 7(b) of the ESA requires NMFS and USFWS (collectively the Services) to issue Biological Opinions (BOs) that detail how actions may affect threatened or endangered species and designated critical habitat and conclude whether an action is likely to

¹ The term "jeopardize the continued existence of" means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers or distribution of that species" (50 CFR § 404.02)

jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat.²

The ESA Section 7 regulations recognize that an emergency may require expedited consultation. Therefore, for past oil spill response actions that occurred in the Northwest and that may have affected listed species, the USCG and the EPA (action agencies) have conducted emergency consultations during the oil spill response. The emergency consultation is initiated informally, with the action agency contacting the Service(s) (NMFS and/or USFWS) as soon as possible for advice on measures that would minimize effects of the response action on listed species or critical habitat.³ If the initial review indicates that the action may result in jeopardy to a listed species or adverse modification to critical habitat, and no means of reducing or avoiding the effect are apparent, the action agency is advised and the Services' conclusions documented. After the response action is over, and if it has been determined that the action(s) has adversely affected listed species or adversely modified critical habitat, the action agency then initiates formal consultation in accordance with 50 CFR 402.14. Additional guidance on formal consultation can be found in the Final ESA Section 7 Handbook (Chapter 8) March 1998.

1.3 Interagency Memorandum of Agreement

² The ESA regulatory definition of "destruction or adverse modification" was invalidated in an August 6, 2004 court opinion (No. 03-35279, D.C. No. CV-00-05462-FDB) issued by the United States Court of Appeals for the Ninth Circuit. While NMFS is developing its response, it is using the ESA statutory description of critical habitat and statutory definition of conservation to determine whether an action would result in the destruction or adverse modification of critical habitat.

³ Federal regulations implementing the ESA state that "where emergency circumstances mandate the need to consult in an expedited manner, consultation may be conducted informally through alternative procedures that the Director [of NMFS] determines to be consistent with the requirements of 7(a) - (d) of the ESA. This provision applies to situations involving acts of God, disasters, casualties, national defense or security emergencies, *etc.*" (50 CFR 402.05).

In 2001, the USCG, EPA, Department of Interior's Office of Environmental Compliance and USFWS, NMFS, and NOAA's National Ocean Service signed an agreement titled: "Inter-agency Memorandum of Agreement (MOA) Regarding Oil Spill Planning and Response Activities Under the FWPCA's National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act."⁴ The purpose of the MOA is to increase cooperation and understanding among agencies involved in ESA compliance at every stage in oil spill planning and response. The MOA outlines procedures to streamline the ESA compliance process before, during, and after an incident. A guidebook has been developed to familiarize oil spill responders and the Services' representatives with, among other things, the processes through which increased cooperation and Section 7(a)(2) consultation should occur.

(http://www.nrt.org/Production/NRT/NRTWeb.nsf/PagesByLevelCat/Level2ESAMOU?Opendocument)

According to the MOA, the Services determined that oil spill response activities qualify as an emergency action. The Federal On-Scene Coordinator (FOSC) would continue to conduct the emergency consultation, if needed, until the emergency is over and the case is closed. An "emergency" in this case has been determined to exist until the removal operations have been compleded and the case is closed, in accordance with 40 CFR 300.320(b). Section 7(a)(2) consultation would be initiated after the emergency is over; at which time the Service(s) would evaluate the nature of the emergency action(s), the justification for the expedited consultation, and the impacts on listed species and their critical habitats.

1.4 The Need for a Programmatic Biological Opinion

⁴ Inter-agency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities under the Federal Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the

Several unfavorable experiences with incident-specific consultations, even after the 2001 MOA was signed, provided incentive for the agencies in the Northwest to consider developing a programmatic ESA consultation. Besides not wanting to repeat past mistakes, the greatest obvious benefit to a programmatic consultation would be to institutionalize actions and procedures that protect threatened and endangered species. Under these streamlined new procedures, this would occur at the earliest possible time in the response planning phase, while at the same time reducing the burden of processing emergency consultation paperwork when required. Based on informal consultations with the Region 10 EPA and D13 USCG, and after initially assessing the direct and indirect effects of the proposed action on listed species and their critical habitat, NMFS determined that many response activities in the northwestern United States could be evaluated programmatically and addressed under a broad incidental take statement (ITS). However, for a number of response actions for which effects on listed species were less predictable or for which NMFS had particular concern, a "tiered consultation" approach was deemed appropriate. The purpose of the tiered consultation approach is to help determine if the proposed response activity method is within the range of effects analyzed within the BO, and whether it may be necessary to defer to independent emergency consultation after recovery work, as called for in the 2001 MOA. Actions for which tiered consultation would be necessary are described in the following section.

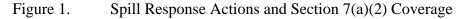
2.0 THE BIOLOGICAL OPINION

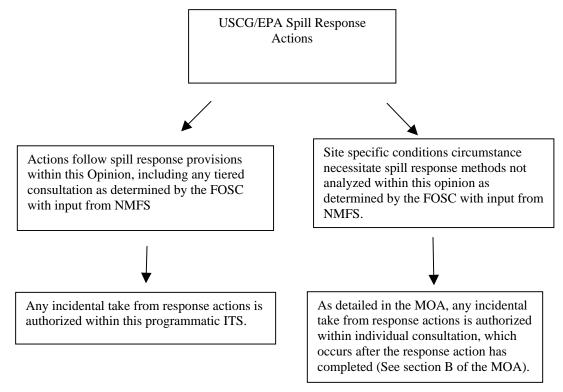
2.1 The Federal Action, Limitations and Tiered Consultation

The BO does not limit the application of spill response actions. Any response action necessary to protect public health and safety is authorized, but some of these actions may not be covered

Endangered Species Act, signed by USCG, EPA, US Fish and Wildlife Service, NMFS, National Ocean Service,

programmatically by the BO. In these circumstances, the MOA would be applied and individual Section 7(a)(2) consultation with NMFS would proceed after the response is finished. With the issuance of the BO there are two pathways for the action agencies to achieve an incidental take exemption of listed species: programmatic coverage under the BO; or, individual after-the-fact consultation as outlined in the MOA.





A key point of discussion among the USCG, EPA and NMFS during the consultation was the role that the MOA would continue to play within spill response action consultations subsequent to the issuance of the BO. Figure 1 was developed to aid in understanding implementation of the BO and the MOA in relation to Section 7(a)(2). Essentially, site-specific circumstances may require spill responses that were not part of the proposed Federal action and not analyzed in the

and Office of Environmental Policy and Compliance, 2001

BO.

The BO does not exempt ESA take liability for parties responsible for the oil spill itself. The Damage Assessment and Restoration Program (DARP), established by NOAA in 1990, is responsible for restoring coastal and marine resources that have been injured by the release of oil and other hazardous substances and to obtain compensation for the public's lost use and enjoyment of these resources. This consultation does not address any restoration actions under the jurisdiction of DARP¹.

The BO is based on information contained in the BA (and Essential Fish Habitat assessment) provided by the D13 USCG (USCG 2002) and the best available scientific and commercial data (published and unpublished). Based on historical spill data and on the potential for the magnitude of an oil spill in offshore and coastal waters, this programmatic consultation addresses an oil spill of up to 250,000 gallons offshore and up to 10,000 gallons inland of the coastal zone. Response actions triggered by a spill larger than these scenarios are not part of the Federal action and would require a separate Section 7 consultation. It also has some limitations for some of the techniques that are listed in the NWACP (Chapter 9000, Section 9640).

The BO considered ESA-listed species under NMFS jurisdiction and spill response activities outlined in the NWACP in the coast and inland waters of Washington, Oregon and Idaho. These are:

- 1. Seventeen Evolutionarily Significant Units of salmon and steelhead;
- 2. Six species of whales;

3. Eastern distinct population segment of Steller Sea Lions;

4. Critical habitat for the Steller Sea Lions and four listed salmon ESUs.

5. Proposed oil spill response activities covered by the NWACP and associated policies

including:

Booming
Mechanical Cleanup
Sorbant Use
In-Situ burning
Chemical Dispersants
Oiled Debris Removal/Vegetation Cutting
Trenching/Recovery Wells
Berms/Barriers
Manual removal of oil
Oiled Sediment Removal
Flushing w/ambient Water
Associated Vessel/Aircraft and Vehicle Use

Effects on listed species through the spill response measures identified in the proposed action range from short-term effects on behavior or habitat use to potentially lethal consequences. Most response actions, such as deploying and operating boom and skimmers, involve in-water disturbance in locations assumed to be occupied by listed species. These actions, which include indirect effects from operating boats and other machinery within the vicinity of listed species, can cause species to shift habitat usage and avoid disturbed areas. This can cause short-term additional energy expenditures, increased vulnerability to predation, and decreased availability of prey. In some instances, lethal effects could occur to listed species from the proposed action. While these instances are expected to be rare and infrequent, the response activities should reduce the overall lethal effects to populations of listed species that would otherwise occur without intervention. For a summary of the effects to critical habitat see page 189 of the

¹ More information on DARP can be found at: <u>http://www.darp.noaa.gov/about/index.html</u>

November 6, 2003 programmatic BO located at: <u>http://seahorse.nmfs.noaa.gov/pls/pcts-</u>pub/sxn7.biop_results_detail?reg_inclause_in=('NWR')&idin=13535

2.2 Geographic Scope and What the BO does not Cover

The BO did not consider oil spill response activities outside the action area of Oregon, Idaho, and Washington. Therefore, a response action in California and Alaska is not covered in the BO and would require a separate consultation. The BO also does not include spill response actions for spills greater than 250,000 gallons in marine waters and 10,000 gallons in inland waters. The BO identifies the following specific response actions which are not covered and for which a tiered consultation is required:

Response Method	Action Requiring Tiered Consultation ¹
Booming	Within rivers and streams with out-migrating / rearing salmon ² and steelhead, when less than 18 inches of clearance exists underneath boom, including tidal cycles / river stages, within 50 feet of shoreline for 24 consecutive hours. Initial Emergency ³ work allowed without Tiered Consultation.
In-Situ Burning	Prior to consideration of In-Situ Burning.
Chemical Dispersants	When, during monitoring, large (>5 whales or >10 Steller sea lions) feeding aggregations of listed marine mammals are sighted in the area (within 1 mile of proposed application site) in which chemical dispersants are being considered.
Berms and Barriers	Within rivers and streams with out-migrating / rearing salmon ² and steelhead, prior to berm and barrier construction. Initial Emergency work allowed without Tiered Consultation. ³
Oiled Debris Removal	Prior to removal of large wood ⁴ that is a structural component ⁵ of streams / nearshore habitat.
Oiled Sediment Removal, Reworking, and Removal with Replacement	Prior to work in lower intertidal ⁶ and sub-tidal zones.
Flushing with Warm or Hot Water	Prior to warm and hot water, moderate-pressure washing in waters that host migrating or rearing salmon / steelhead and/or critical habitat that

Table 2. Spill Response Scenarios Requiring Tiered Consultation.

may be adversely modified by an influx of warm or hot water.

¹Tiered Consultation is required for these actions and circumstances only. Actions consistent with these terms and conditions outside of Table 2-1 above do not need Tiered Consultation.

- ²"Salmon" refers to all species of salmon that may be found in the action area, including chinook, chum, coho, pink, and sockeye.
- ³ Initial Emergency is defined as actions taken to avoid imminent harm to public health and/or aquatic resources from oil contamination.
- ⁴"Large wood" is defined as a log that is: 1) dead; 2) root system (if present) no longer supports the weight of the stem / bole; 3) minimum diameter of 0.1 m (10 cm) along 2 meters of its length; and 4) minimum 0.1 m of length extending into the bankfull channel.
- ⁵"Structural component" is defined as large wood that is partially or wholly embedded within a bank or channel substrate, or caught upon other wood or channel feature so that it does not readily move in most flow conditions. In most environments it is evident that water flows around the wood by pool formation, collection of debris, and/or deposition of sediment.
- ⁶Lower intertidal is defined as below mean high water in tidally influenced areas, or ordinary high water marks in non-tidally influenced waters.

The tiered consultation alternative was developed because some habitats are more important to

listed species than others; not all oil spill response activities have predictable effects; and, in the

event of a large oil spill, an additional Section 7(a)(2) review would likely be necessary to ensure

adverse effects on listed species and their habitat are addressed.

2.3 Using the Biological Opinion

Essentially, the Opinion now allows two paths for ESA Section 7 coverage:

1. Follow the Terms and Conditions (T&C's)) and Reasonable and Prudent Measures

(when applicable and practicable) as outlined in the BO, or

2. Follow the provisions in the nation-wide ESA MOU.

The effects of the spill cleanup actions were linked to a series of T&C's. These are required by

Section 7 of the ESA, and are actions NMFS considers necessary to minimize the potential for

incidental take of listed species. Most of the T&C's were derived from USCG & EPA proposed

Best Management Practices (BMP) identified in the biological assessment which are a part of the

NWACP and are used by spill responders in the area, the regional Oil Spill Response

Organizations (OSROs). For most spills anticipated to occur in the Pacific Northwest, the

cleanup practices will normally follow the T&C's in the BO, and no additional consultation or assessment for the cleanup actions will be required for ESA listed species under NMFS jurisdiction. The majority of the spills in the Northwest are small and easily NWACP best management practices can be easily followed.

If, however, the nature of the spill prevents, the T&C's from being met, then the federal action agency, or through the on scene NOAA Scientific Support Coordinator (SSC), needs to contact NMFS in order to begin a tiered consultation for site specific discussions which would occur after the emergency response phase of the spill ends. Table 2, which can also be found in the BO, outlines specific conditions that would require tiered consultation. However, it is important to begin the tiered consultation as soon as possible following a spill and as soon as the responder sees the T&C's cannot be met. Doing so will reduce the need to reconstruct what occurred and what was affected by the cleanup. This could be accomplished through the Environmental Unit in the Unified Command. In this case, the SSC should monitor of the progress of the cleanup and ensure that listed species are protected to the maximum extent possible in accordance with the MOA.

If the spill is totally outside the scope of the BO, the National MOA would be followed for emergency consultation and/or a full consultation either once the emergency cleanup phase is completed or at the very beginning of the long-term or remedial cleanup. As mentioned above, the sooner this is initiated in the cleanup process, the easier it may be.

Nothing within the consultation limits the application of spill response actions needed to protect public health and safety and the environment. By all means, responders should do the work necessary to control and recover the spill!

3.0 RESULTS

During the two years since the BA and BO were finalized (on November 6, 2003), the agencies have established a calling tree whereby NMFS is notified of each spill by NOAA Hazmat staff, usually within 2-8 hours after each spill event. As of October 2005, NMFS had been notified at least 30 times. Once notified, NMFS contacts geographically-assigned biologists knowledgeable about ESA-listed species and critical habitat that may be affected by spill response actions. The geographically-assigned biologists then contact the FOSC with information about what species may be present, life history phases, and guidance with regard to implementation of conservation actions, drawing from the terms and conditions identified in the programmatic BO. For some spills, NMFS staff participate in on-site clean up actions and help the action agencies make real time decisions.

Records kept by the NMFS indicate that the programmatic provision of the BO has been used for approximately 50-75% of the spills requiring agency notification. Instances where the BO is not being used typically involve locations where ESA-listed species are not present or sites where critical habitat has not been designated. The tiered consultation provision has not yet been used in the Northwest, and incident-specific BAs and BOs have not yet been needed. This may be the result of the relatively short timeframe during which the programmatic BO has been in place, lack of large spills and lack of spill response actions falling outside the programmatic provisions, or an indication that additional training may be needed to better inform agency personnel of proper implementation. Beginning at the end of calendar year 2004, in accordance with the BO, the action agencies are required to submit a report to NMFS describing each spill event for which the BO provisions and incidental take statement were implemented. This report will trigger an interagency meeting to discuss areas where implementation of the BO may need to be changed or strengthened, including the use of the tiered consultation provision and strategies to address staffing shortages.

The agencies agree that the BO has resulted in much improved coordination, better calibrated interagency expectations of spill response activities and ESA-listed species needs, and some cost efficiencies. In terms of cost, the agencies incurred approximately 16 months of start-up cost for 2-3 technical staff to develop the BA and BO. However, the final BA/BO likely saves a minimum of 20-40 hours/spill-response of staff time that would be necessary to properly assess each situation, develop BA documentation between the agencies, and process the ESA consultation paperwork. Using an average wage for higher paid technical staff of \$30-\$40/hour, this would cost approximately \$600-\$1600/spill. Although at this rate it will take several years to recuperate the initial cost to prepare the BA, the agencies agree that the increased cooperation and more consistent implementation of ESA conservation measures are well worth the upfront cost.

4.0 EXAMPLES OF THE BIOLOGICAL OPINION AND CONSULTATION USE AND NON-USE IN SPILL SITUATIONS

4.1 Dalco Passage Spill October 14, 2004

In the late evening/early morning of October 14, 2004, there was a spill of approximately 1500 gallons of oil into the southern part of Puget Sound, Washington, near the Dalco Passage. A signed Biological Opinion, based in large part upon currently employed best practices, was in place prior to the spill. The BO did not significantly affect response strategies for this spill and

having it in place helped expedite typical consultation issues that were raised as a result of cleanup activities. Primarily because of the time of year the spill occurred, local listed species, though considered, were not a major issue during this spill as they often are (the 2003 spill in Buzzard's Bay, MA, for example – see 4.3 below). The timing of the spill was in many ways fortuitous; there were no significant populations of endangered or threatened species in the area that were affected by response activities. If there had been NOAA listed species present, they would have been covered under the BO, as stated earlier. Standard spill response best practices were used during the spill.

4.2 Lochsa River, ID, Spill November 13, 2003

On November 13, 2003, at approximately 0700 Mountain Standard Time, a tanker truck with a pup trailer overturned on State Highway 12, the only east-west route through north central Idaho. Approximately 6,300 gallons of red-dyed diesel was released on to the road shoulder and into the Lochsa River. The Lochsa River is a designated Wild and Scenic River, home to ESA-listed species (USFWS trustee species) and steelhead (NMFS trustee species), chinook salmon essential fish habitat, non-listed chinook salmon, and westslope cutthroat trout. The river also serves as the sole drinking water source for four downstream communities. Though the Biological Opinion for Oil Spill Response Activities conducted under the Northwest Area Contingency Plan (NWACP) was signed only 6 days prior to this spill, it provided essential guidance to EPA to ensure response techniques had minimal impact on critical species and habitat. It also provided NMFS with guidance to better understand oil spill response and potential impacts to their trust resources.

4.3 Buzzards Bay, MA, Spill April 27, 2003

On April 27, 2003, the tank barge B No. 120, owned by Bouchard Transportation Company, Inc., en route from Staten Island, NY to the ESCO Terminal on Cape Cod Canal carrying approximately 4.1 million gallons of No. 6 fuel oil had an oil spill The volume of oil discharged was estimated on 28 April to be 14,700 gallons and revised on 20 May to be 98,000 gallons. The oil spill impacted over 90 miles of coastline in Buzzards Bay, Massachusetts, with additional impacts extending west to Little Compton and Block Island, Rhode Island.

A programmatic consultation would have provided site-specific guidance that could have reduced impacts to listed species in the affected area, including piping plovers, roseate terns, and northeastern beach tiger beetles. Unfortunately, this spill occurred prior to development of a programmatic ESA Section 7 consultation. However, this experience demonstrated that a programmatic BO (when developed) should not be overly detailed trying to anticipate every situation; too much detail is not necessary when working with species experts on site. Pre-spill consultations can ease the burdens, but it does not always alleviate the need to involve species experts in the Environmental Unit to address issues specific to a particular response.

This experience also demonstrated that regardless of how detailed a pre-spill programmatic consultation is, some level of consultation will be required post spill. Nonetheless, front loading with pre-spill programmatic consultations significantly simplifies final consultations and streamlines the process.

5.0 CONCLUSION

The programmatic Biological Opinion was developed with NMFS in order to allow agencies and spill responders to act more effectively and quickly while still protecting listed species and their

habitats within the parameters of the ESA. It also allowed the action agencies to better refine the response tools and techniques they use in the field in areas and during times when listed species and their habitats could be impacted. This process has helped forge a closer relationship between the trustee agencies and the federal action agencies as they have become more educated about the roles and priorities of the spill responders. It should be noted that the programmatic consultation only involved NMFS, so if USFWS-listed species are expected or encountered in a spill area, there would still need to be consultation on some level with that agency during a spill situation. Inclusion of the USFWS would enhance the product, but even as the NW Area Biological Opinion exists now, it can be a valuable resource in the toolbox of the spill responder.

BIBLIOGRAPHY

Endangered Species Act - Section 7 Consultation Programmatic Biological Opinion Magnuson-Stevens Fishery Conservation and Management Act Programmatic Essential Fish Habitat Consultation Oil Spill Response Activities Conducted Under the Northwest Area Contingency Plan Agency: United States Coast Guard/Environmental Protection Agency Consultation Conducted By: National Marine Fisheries Service, Northwest Region Date Issued: November 6, 2003

Inter-agency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities under the Federal Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act, signed by USCG, EPA, US Fish and Wildlife Service, NMFS, National Ocean Service, and Office of Environmental Policy and Compliance, 2001

Michel, J., S. Christopherson and F. Whipple. 1994. Mechanical protection guidelines. June, 1994.