Finding of No Significant Impact for the implementation of Exxon Valdez Trustee Council project No. 11100836: - Pilot studies of bioremediation of the Exxon Valdez oil in Prince William Sound beaches

National Marine Fisheries Service
June 13, 2011

National Oceanic and Atmospheric Administration Administrative Order 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality regulations at 40 C.F.R. '1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

1) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in FMPs?

Response: No. The pilot project test sites are quite limited in size and already contain toxic oil in the subsurface. The activities are not expected to expose any of the oil. As shown in Figure 7 of the EA, none of the areas are associated with historical herring spawning sites. Also, only one pink salmon stream is sufficiently close to a study site (LA015E; EA Fig. 6) to be potentially impacted by any of the activities associated with this project. As described in EA Section 4.2, the likely location of the treatment area is sufficiently distant from this stream that it can be protected by establishment of appropriate work rules.

2) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: No. The proposal is to remove a potential threat to the ecosystem by promoting bacterial growth to breakdown the subsurface oil. As described in EA Section 4, the only likely disturbance would be for predators that forage in the intertidal zone during low tide, and that disturbance would only occur while workers are present on the beach. Workers will be present on each beach for about 3 days during site setup, 2 days when the equipment is being removed, about one day per month for sample collection, and several hours per week to perform routine maintenance. Overall, workers are likely to be present on each beach for a complete tidal cycle on only about 7 or 8 days during the entire study.

3) Can the proposed action reasonably be expected to have a substantial adverse impact on public health or safety?

Response: No. As discussed in EA section 4.2.3 the treatment chemicals that will be deployed are relatively benign and will break down quickly. Warning labels will be placed on the chemical storage containers. None of the activities associated with this project would affect public health or safety.

4) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species?

Response: No. Although Steller sea lion haul-out sites are present within the general area of two of the project sites (PWS4A44 and EL056C), they are sufficiently distant (>0.8 km with no easy access) that no significant impacts can be expected. Similarly, harbor seal haul-out sites are in the vicinity of three project sites (PWS4A44, EL056C, and SM006B), but the distance is sufficient (≥2 km) and access is sufficiently limited that no impacts are anticipated. Sea otters may be present in the general vicinity of all of the sites, but their concentrations are listed as "low," and interference with their foraging activity would only occur when workers are present on the beach. In addition because the sites contain lingering oil, if successful in removing the oil the project should lessen the harm to foraging otters than if the project did not take place.

5) Are significant social or economic impacts interrelated with natural or physical environmental effects?

Response: No. The sites themselves are remote and not easily accessible. While there is some potential for recreational boaters or wildness guides and their clients to observe field activates and the storage sheds, the proponents will use that as opportunity to educate the public about the project through informational posters placed on site (EA section 4.2.4). Any impacts this will have the wilderness experience should be slight

6) Are the effects on the quality of the human environment likely to be highly controversial?

Response: No. This pilot project this is not expected to have controversial effects on the human environment. As a part of a staged approach to address the issue of lingering oil, there has been opportunity for public input at Exxon Valdez Trustee Council meetings as well as during the process of drafting the 2010 SEIS . No controversial issues regarding this approach were brought up in those forums. If the project proves successful consideration may be made to apply it to a broader area. That decision will provide opportunity for additional public input.

7) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas?

Response: No unique areas or resources are on the beach segments being treated and no significant impacts are expected. The USDA permit issued for housing of equipment above mean high tide will provide stipulations that minimize use of the associated upland area and avoidance of locations that may contain cultural resources. No substantial impacts are expected.

8) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: No. The risks to the human environment are well understood and expected to be insignificant.

9) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

Response: No cumulative impacts are expected. This is a standalone project. However if the pilot-scale project is successful at removing oil, an expanded project may be considered as discussed in EA section 5.0 but at this point it would be premature to conduct an analysis of those impacts.

10) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

Response: No. While one of the locations of study is close to a culturally sensitive area, a special use Forest Service permit will be required for upland uses (placement of a storage shed housing equipment). That permit will include stipulations that will preclude the potential for any adverse effects. The issuing of the permit involves tribal consultation and consultation with the State Historic Preservation Office. With the issuance of the permit no concerns about cultural resources are anticipated.

11) Can the proposed action reasonably be expected to result in the introduction or spread of a nonindigenous species?

Response: No organisms, indigenous or nonindigenous, will be introduced into the environment as a result of this project.

12) Is the proposed action likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

Response: No. As discussed in section 1.1 this project will inform a future decision about whether to apply bioremediation technique on a larger scale but does not presuppose that decision

13) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

Response: No.

14) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: No. This project will test the feasibility of applying a technique to render harmless, oil that is toxic to sea otters, harlequin ducks and the intertidal communities that are considered resources that have not fully recovered from the 1989 oil spill.

DETERMINATION In view of the information presented in this document and the analysis contained in the supporting Environmental Assessment prepared for the Exxon Valdez Trustee Council project No. 11100836: - Pilot studies of bioremediation of the Exxon Valdez oil in Prince William Sound beaches, it is hereby determined that the implementation of that project will not significantly impact the quality of the human environment as described above and in the Environmental Assessment. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an EIS for this action is not necessary.

James W. Balsiger, Ph.D.
Administrator, Alaska Region

10/15/11
Date