Finding of No Significant Impact
Marine Turtle Genetics Program and Marine Turtle Ecology and Assessment Program at the Southwest Fisheries Science Center
National Marine Fisheries Service

National Oceanic and Atmospheric Administration Administrative Order 216-6 (NAO 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 (CEQ) 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 in 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:

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 Fishery Management Plans (FMPs)?

Response: No. Methods that would be used relative to this proposed action are conducted primarily offshore or in near shore areas that do not contact the bottom, thus there are no effects on benthic habitat, including benthic portions of Essential Fish Habitat (EFH) designated under Section 305(b) of the Magnuson Stevens Fishery Conservation and Management Act (Magnuson Stevens Act or MSA). The nature of the proposed research projects involves removing sea turtles from pelagic or near shore habitats for short periods of time for serum or tissue sampling, tagging and subsequent release, and the projects would not pose any measurable impact on surrounding environments, the water column, and benthic habitats. Similarly, research involving nesting beaches would involve short-term work directly with sea turtles and hatchlings, and would not pose any measurable impacts on surrounding environments and habitats.

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 proposed research activities are not expected to have substantial impacts on biodiversity or ecosystem function because the proposed research activities deal primarily with biological data collection from individual animals rather than at the ecosystem level. Any sampling or involvement at the ecosystem level would be extremely limited in time and scope, such as removal of a turtle from its natural environment for a short period of time, thus no adverse impacts are expected to occur.

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

Response: No. The proposed research activities are not expected to have any impacts on public health or safety. Any research efforts involving areas open to the public ensures that, while members of the public may watch activities involving stranded sea turtles or sea turtle examinations and releases from a distance, they are not allowed to assist or approach in any way. Any research activities that are conducted on the open ocean would not generate any effects (e.g., pollution plumes) that would migrate to population centers. The safety of research personnel is considered first and foremost in all program sponsored activities, and continuous safety training is conducted for all personnel in the implementation of techniques and protocols in the laboratory and the field. As a result, the general public would not be affected in any way by the proposed action.

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. The proposed research activities are not expected to adversely affect endangered or threatened species or critical habitat, as defined under the Endangered Species Act of 1973. The proposed research programs are anticipated to benefit endangered and threatened species of sea turtles by gathering data aimed at long term recovery and conservation using research techniques that have been proven to be safe, as described in sections 2.2 and 4.2.1 of this PEA. Research involving sampling and genetic fingerprinting of leatherback hatchlings in designated leatherback critical habitat at the Sandy Point National Wildlife Refuge in St. Croix has been approved by USFWS permits to perform research (section 4.5), and related activities are not expected to adversely affect this critical habitat due to adherence to the specific rules and regulations outlined in the permit and the short-term, transient nature of the research. With respect to other species, the risks of incidentally catching or disturbing a marine mammal or other marine vertebrate or invertebrate with the gear used to evaluate turtle biology and behavior

are considered very slim, and precautions are in place to avoid these interactions entirely, as described in section 4.2.2.

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

Response: No. The proposed research programs and their associated research activities are not expected to adversely impact economies of foreign nations, nor are they expected to affect any social customs and/or fishing and other related livelihoods of the communities involved. Any effects on the economies of domestic and foreign nations whose communities are cooperating with the research programs would be extremely minor and primarily positive in nature (e.g., through the employment of local guides and training programs).

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

Response: No. There are no effects on the quality of the human environment that are likely to be controversial as a result of the proposed research programs and related research activities, especially considering that the research programs are likely to have overall positive effects on endangered and threatened sea turtle species. In addition, there is an active program at the SWFSC promoting public education and awareness which allows for the open explanation of various aspects of ongoing research activities.

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 or ecologically critical areas?

Response: No. No unique terrestrial areas would be affected by the proposed action. None of the National Marine Sanctuaries, World Heritage Sites, or other marine conservation areas nor their protected species would be adversely impacted by the proposed research programs and their associated activities. The proposed research activities in the regions described in section 3.2 are transient in time and space, and would not impact nesting beaches or nearshore areas. Additionally, nesting beaches in Costa Rica and the waters surrounding the Galapagos Islands are protected and closely monitored as conservation areas and as such are carefully regulated. Responsible sea turtle research within these areas is encouraged and supported. Aerial surveys in or around the National Marine Sanctuaries specified have already been approved by permits. Specific regulations and special conditions such as overflight altitudes and restriction zones for different marine sanctuaries to prevent disturbances to wildlife are provided in the permit and would be adhered to during any research activities conducted in any of these areas.

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

Response: No. The procedures, methods, and mitigation measures that are proposed and outlined in section 2.2.2 are accepted worldwide in the sea turtle research scientific community and have proven effective in various parts of the world over many years. The proposed research programs are primarily a continuation of studies that have well-understood and minimal direct effects on the human environment and similarly well-understood and minimal risks to target and non-target species.

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

Response: No. The past, present, and future research activities are not likely to have had or have any significant adverse cumulative effects on the environment. In conjunction with the conservation goals of other agencies, any cumulative impacts of the proposed research activities would likely be beneficial to sea turtle populations.

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. The proposed research programs and related research activities would not take place at any districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places. Similarly, the proposed research activities are not likely to cause any loss or destruction of scientific, cultural or historical resources primarily because the proposed activities will not involve any cultural or historical resources, and any involvement of scientific resources, such as endangered sea turtles, are limited in time and scope, non-destructive, and minimally invasive.

Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?

Response: No. The proposed research activities are not expected to result in the introduction or spread of non-indigenous species. The species involved in the proposed research activities are native to the study region, and any equipment used is either disposable or sanitized between uses.

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. The purpose of the research programs is to gather information that may be used to benefit conservation efforts for marine turtle species. The basic methods and procedures for research activities sponsored by the proposed research programs are widely accepted in the scientific research community and have already been published in peer-reviewed scientific literature. Any additional methods to be used as part of the research programs builds upon existing techniques or information in an attempt to further improve data collection and analysis and results obtained from the proposed research will be subject to further review and potential modification, which is an integral part of the scientific research process. To the extent that these methods establish a precedent for future studies, the precedent will be based on the quality of the data obtained, and will consider the minimization of the adverse impacts to the resources being studied. As such, this research continues research already completed and/or parallels research being conducted in other areas, and therefore does not represent a precedent for future actions.

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. The proposed research programs would only operate with all the necessary and required permits and approvals from Federal, state, local, and foreign agencies and thus are not expected to violate such laws and requirements. As described in section 4.5, permits are already in place in support of research activities, including a Section 10 (a)(1)(A) permit authorizing sea turtle takes and scientific research under the Endangered Species Act. Jurisdiction under the ESA for sea turtle research extends up to the territorial limits of another county, such that any research conducted on foreign nesting beaches or offshore within that country's territorial waters is not subject to the provisions of the ESA and thus a U.S. ESA permit is not required for those research activities, although appropriate in-country regulations are upheld.

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. The proposed research activities are not expected to have adverse cumulatively significant impacts. The goal of the proposed research programs are to generate new data and information on strategies that have the potential for supporting the recovery of sea turtle populations worldwide. Field research activities focus on individual sea turtles rather than non-target species, and as such are not expected to have any adverse cumulative effects on surrounding ecosystems or species inhabiting them. In conjunction with the conservation goals of other agencies, any cumulative impacts of the proposed research activities would likely be beneficial to sea turtle populations.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting Programmatic Environmental Assessment prepared for the Marine Turtle Genetics Program and the Marine Turtle Ecology & Assessment Program at the Southwest Fisheries Science Center, it is hereby determined that the proposed research programs will not significantly impact the quality of the human environment. 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.

Acting Director, Southwest Fisheries Science Center
Responsible Program Manager

9/23/10
Date