



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
PROGRAM PLANNING AND INTEGRATION
Silver Spring, Maryland 20910

JUL 13 2005

To All Interested Government Agencies and Public Groups:

Under the National Environmental Policy Act, an environmental review has been performed on the following action.

TITLE: Promulgation of a Final Rule to Authorize Response to Stranded Endangered Sea Turtles in the Marine Environment

LOCATION: U.S. Jurisdiction, States, and Territorial Waters

SUMMARY: An Endangered Species Act rule would allow any agent or employee of NMFS, the U.S. Fish and Wildlife Service, the U.S. Coast Guard, or any other Federal land or water management agency, or any agent or employee of a state agency responsible for fish and wildlife who, when acting in the course of his or her official duties, to take endangered sea turtles encountered in the marine environment if such taking is necessary to aid a stranded endangered sea turtle, or dispose a dead endangered sea turtle, or salvage a dead endangered sea turtle that may be useful for scientific and educational purposes.

RESPONSIBLE OFFICIAL: James H. Lecky
Director, Office Protected Resources
National Marine Fisheries Service
Silver Spring MD 20910

The environmental review process led us to conclude that this action will not have a significant impact on the environment. Therefore, an environmental impact statement is not being prepared. A copy of the finding of no significant impact is enclosed for your information.

Please submit any written comments to the responsible official named above. Also, please send one copy of your comments to the NOAA Office of program Planning and Integration (PPI/SP), SSMC3 Rm. 15609, 1315 East-West Hwy, Silver Spring, MD 20910.

Sincerely,

Susan A. Kennedy
Acting NEPA Coordinator

Enclosure



**Environmental Assessment and Finding of No Significant Environmental Impact
Issuance of a Endangered Species Act Section 10(a)(1)(A)
Programmatic Permit by Regulation for Listed Sea Turtles**

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I. Purpose and Need of Proposed Action: The National Marine Fisheries Service (NMFS) proposes to implement a section 10(a)(1)(A) programmatic permit by regulation pursuant to the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.) and the regulations governing the taking, importing, and exporting of endangered and threatened species (50 CFR 222-226). The programmatic section 10(a)(1)(A) permit rule would allow agents and employees of Federal and state agencies and their designees to aid endangered stranded sea turtles, and to salvage, collect data from, and dispose of, dead carcasses of endangered sea turtles, in the marine environment. By definition, the term 'stranded' includes live endangered sea turtles that are sick, injured, or entangled and dead endangered sea turtles found in the marine environment.

Section 10(a)(1)(A) of the ESA allows for issuance of permits to take endangered species for scientific purposes or to enhance the survival of the species. Because the activities described above are similar in nature and scope, NMFS proposes to issue a programmatic permit by regulation pursuant to section 10. Under the ESA and its implementing regulations, taking endangered sea turtles - even incidentally - is prohibited. The ESA allows take of threatened species, however section 4(d) of the ESA allows NMFS to implement regulations for the conservation of threatened species. NMFS implemented a section 4(d) regulation that extended the take prohibitions to threatened sea turtles with exceptions identified in 50 CFR 223.206. The take of endangered species may be authorized by an incidental take statement pursuant to section 7 or a permit or programmatic permit by regulation issued pursuant to section 10 of the ESA.

For this programmatic section 10(a)(1)(A) permit regulation, NMFS has prepared an Environmental Assessment (EA) to facilitate a thorough assessment of potential impacts on the human environment.

II. Alternatives Under Consideration: Three alternatives have been considered and include: (1) implementing a programmatic permit regulation under section 10(a)(1)(A) i.e., the proposed action (Preferred Alternative); (2) issuing a programmatic permit under section 10(a)(1)(A); and (3) not approving the handling of endangered sea turtles in the marine environment, i.e. the no action alternative.

II.A. Description of the Proposed Action (Preferred Alternative): Under this Alternative, NMFS would authorize, through a section 10(a)(1)(A) permit by regulation, activities in the marine environment to respond to stranded or dead endangered sea turtles.

Activities related to responding to sick, injured and dead turtles have been ongoing for over 30 years and became institutionalized in 1980 with the establishment of the NMFS' Sea Turtle Stranding and Salvage Network (STSSN) in the southeastern United States and Gulf of Mexico, Hawaii in 1982, and the NMFS Southwest Region California Marine Mammal Stranding Network (CMMSN) has responded to sea turtle strandings in California since 1983. The purpose of the STSSN is to document dead sea turtles, salvage specimens, and aid sick, injured, entangled sea turtles that strand in coastal areas under U.S. jurisdiction. The STSSN is organized under a national coordinator and consists of a coordinator for each state as well as trained volunteers and

municipal, state and federal employees and their designated agents operating under the direction of the state and national coordinator. Each state oversees and is responsible for collecting data under their STSSN program, except for California where NMFS oversees and collects the data (OMB No. 0648-01778). Although the STSSN has historically responded to entangled turtles in the marine environment, in response to the high number of leatherbacks found entangled in fishing gear (primarily pot gear) along the U.S. northeast Atlantic coast, NMFS established the Northeast Atlantic Coast Sea Turtle Disentanglement Network (STDN) in 2002. The STDN is considered a component of the larger STSSN program, and is managed by the NMFS Northeast Regional Office.

Tens of thousands of sea turtles have been reported through the STSSN since its inception. A portion of these reports have been endangered sea turtles found in the marine environment. Cumulatively, from 1993-2002, the STSSN responded to approximately 1,000 endangered sea turtles in the marine environment in the Atlantic and Gulf of Mexico. The species composition of these events in the marine environment was: 99 leatherbacks, 45 hawksbills, 223 Kemp's ridleys, and 633 greens (note: all greens are considered endangered because breeding colony origin is largely unknown). Thirty-seven percent of these incidents were live encounters. In Hawaii, for the same time period, approximately 20 endangered sea turtles were responded to in the marine environment. The species composition of these events was approximately split between hawksbill and olive ridleys (note: all olive ridleys are considered endangered because breeding colony origin is largely unknown). Of these events, over half were live encounters. In California, for the same time period, 12 endangered sea turtles were responded to in the marine environment. The species composition of these events was 4 leatherbacks, 2 olive ridleys, and 6 greens. Of the total responded to, half were live encounters.

When a turtle is encountered in the water, the STSSN Responder determines whether the turtle is alive or dead. The response protocol is based upon this first determination. For live turtles, the treatment is, in part, based upon the circumstances surrounding the event. For example, when sea temperatures drop below a certain level, sea turtles become lethargic or comatose, a condition known as cold-stunning. For these cold stun cases, the most immediate response is to remove the turtle from the water, apply a moisture emollient around its nostrils and eyes to prevent the membranes from drying out, provide a cover for the animal and transport it to a rehabilitation facility for veterinary care. For entanglement events, removal from the water is not always the best response and can result in further injury. The STSSN Responder assesses the amount and type of gear that is involved and examines where and how the turtle is entangled in the gear. The responder also looks for injuries associated with the entanglement and observes the turtle's behavior (e.g., lethargic, energetic). Based on the assessment and examination, the STSSN Responder attempts to remove any gear that can be removed without further injury to the turtle. If the animal can be brought on board a vessel without further injury, the STSSN Responder attempts to remove all external gear and treat the turtle for any associated injuries. If injuries are severe, and it is logistically possible (due to their size and weight leatherbacks present unique challenges), the turtle is transported to shore for transfer to a rehabilitation facility for veterinary care. During transport, the turtle must be shaded and kept damp or moist but under no

circumstance be placed into a container holding water. For live turtles that are not injured but need resuscitation, procedures specified in 50 CFR 223.206(d)(1) are followed. Resuscitation and rehabilitation increases the turtle's chance of survival after being released.

In some circumstances, live turtles will be measured, flipper and passive integrated transponder (PIT) tagged, weighed, photographed, prior to release. Flipper tags would be applied to the trailing edge of either the front or rear flippers with standard tagging applicators after the tagging area has been cleaned with alcohol or iodine solution. PIT tags would be subcutaneously inserted after cleaning the insertion site with alcohol or iodine solution. Before application of flipper tags or insertion of PIT tags all flippers and the neck/shoulder area will be examined and scanned for the presence of any pre-existing flipper or PIT tags. Turtles will also be measured, weighed, and photographed before they are released near the capture area. Responders anticipate that turtles would be on the boat for less than 20 minutes for measurements, weighing, and flipper tagging. Responders will follow the procedures specified in 50 CFR 223.206(d)(1) for safe handling and release of sea turtles. The number of animals that will experience these activities in the marine environment is expected to be low. Many live turtles encountered in the marine environment are injured and require transport to a rehabilitation facility where they are measured, weighed, and tagged (activities on land are authorized by the U.S. Fish and Wildlife Service and are not within the scope of the proposed action). Or in many cases, the STSSN Responder does not have the necessary equipment, and the turtle is treated and released without measuring, weighing, or tagging.

For dead specimens found in the marine environment, the STSSN Responder records data and either leaves the carcass in situ with a mark on the animal or salvages the specimen for further examination or for scientific or educational purposes (for example, data are collected to determine population sex and age structure, and etiology of diseases).

Under this Alternative, numbers and kinds of take, and locations of take, with specific times, dates, places, methods of taking, would be reported after the events occur. The number, species, dates, locations, can be generalized through historical data, but cannot be specifically identified. While general activities are identified under this Alternative, each stranding event is complicated by differences in species, life stage, degree of injury, circumstances that have led to the event, location, weather, and other environmental factors, and require the STSSN Responder to act appropriately based upon their assessment of each stranding event. Under this Alternative, the STSSN will continue to provide annual reports on specific stranding events. Any necessary changes to the STSSN activities would be done through rulemaking.

II.B Permit: Under this Alternative, NMFS would issue a programmatic section 10(a)(1)(A) permit similar to the permit issued to the Marine Mammal Health and Stranding Response Program (MMHSRP Permit No. 932-1489-05). The permit would authorize specific activities as described in the Preferred Alternative (II.A), but would not allow as much flexibility to respond to given circumstances in which pre-defined activities were not already identified in the permit. A programmatic permit would identify one permit holder (Holder) who, in turn, would appoint

co-investigators. Appointment would be at the sole discretion of the Holder who would issue to each co-investigator an official letter accompanying the permit. In addition, the Holder must submit a copy of the letter designating the individual as co-investigator and a copy of the individual's curriculum vitae to NMFS Permits Division by facsimile on the day of designation and confirmed by mail. The Holder must ensure that the letter designating the individual(s) contain specific restrictions or a copy of the permit is attached to the designation letter. The Holder or co-investigator may designate members of the STSSN through individual letters of agreement to conduct activities specifically described in the permit.

The permit would only authorize specific circumscribed transactions with specific times, dates, places, methods of taking, numbers and kinds of take, and locations of take. Any changes in circumstances (other than change in mail address or business trade name) would require the Holder to submit in writing a full justification and supporting documents to request a modification to the permit. The permit would have a specified time period, upon which it would either be renewed, modified, amended, suspended cancelled or revoked.

II.C No Action: Under this Alternative, NMFS would not implement a section 10(a)(1)(A) permit or permit by regulation. Any activities described in Alternative II.A and B would not be authorized for endangered sea turtles.

III. Description of Affected Environment: The ESA listed sea turtle species that are the target of the proposed action and would be affected would include hatchling, juvenile to adult sized animals that have the following status-

Endangered

Kemp's ridley turtle	<i>Lepidochelys kempii</i>
Green turtle	<i>Chelonia mydas</i> *
Hawksbill turtle	<i>Eretmochelys imbricata</i>
Leatherback turtle	<i>Dermochelys coriacea</i>
Olive ridley turtle	<i>Lepidochelys olivacea</i> **

*Green turtles in U.S. waters are listed as threatened except for the Florida breeding population which is listed as endangered. Due to the inability to distinguish between these populations away from the nesting beach, green turtles are considered endangered wherever they occur in U.S. waters.

**Olive ridleys are listed as threatened except for the breeding colony populations on the Pacific coast of Mexico

Other Listed Species Potentially Affected by the Proposed Action/Preferred Alternative

The Proposed Action/Preferred Alternative for allowing the response and handling of endangered sea turtles in the marine environment is directed only towards listed sea turtles. STSSN Responders will not be using any devices that could affect other listed species. Responders will be engaged in disentangling sea turtles from fishing gear or other marine debris, collecting injured turtles for treatment, and collecting dead carcasses found floating in the water.

Collection would be done by hand or dipnet. Thus, no additional effects are anticipated for other listed species.

Non-Target Species

The Proposed Action/Preferred Alternative for allowing the response to and handling of endangered sea turtles in the marine environment is directed only towards listed sea turtles.

STSSN responders will not be using any devices that could affect other listed species.

Responders will be engaged in disentangling sea turtles from fishing gear or other marine debris, collecting injured turtles for treatment, and collecting dead carcasses found floating in the water. Collection would be done by hand or dipnet. Thus, no additional effects are anticipated for other species.

Essential Fish Habitat (EFH)

EFH is defined for all areas (Pacific, Atlantic, Caribbean, and Gulf of Mexico) where the proposed activities under the STSSN are likely to occur. EFH includes estuarine waters and substrates (mud, sand, shell, rock and associated biological communities), including the sub-tidal vegetation (seagrasses and algae) and adjacent inter-tidal vegetation (marshes and mangroves), neritic and oceanic zones. A full description of the designated EFH by coastal area can be found at http://www.nmfs.noaa.gov/habitat/habitatprotection/efh_designations.htm. The Office of Habitat Conservation was contacted and it was determined that the proposed action would not adversely impact Essential Fish Habitat (EFH)). Therefore, no consultation was necessary and EFH will not be addressed further in this analysis.

IV. Environmental Consequences

II.A. Proposed Action/Preferred Alternative: Any impacts of the proposed action would be limited to the target species (sea turtles). Thus, the types of activities proposed in the rule are not likely to significantly affect the physical environment. It is not likely to affect the socioeconomic environment, or pose a risk to public health and safety.

The programmatic section 10(a)(1)(A) permit rule would allow agents and employees of Federal and state agencies and their designees to aid endangered sick, injured, entangled or stranded sea turtles, and to salvage, collect data from, and dispose of, dead carcasses of endangered sea turtles in the marine environment. Based on historical data, approximately 105 endangered sea turtles will be responded to each year. Of this total, approximately 10 leatherbacks, 5 hawksbills, 27 Kemp's ridleys, 65 green turtles, and 1 olive ridley will be responded to each year (note: numbers do not add up to the total due to rounding). Approximately one half of the turtles responded to will be dead, and effects to these individuals cannot accrue beyond their base condition.

Handling, tagging, measuring, and weighing can result in physiological effects on sea turtles. However, NMFS believes that these activities would have a relatively low level, short-term physiological effect on the individual animal. These effects are expected to be minimal and short-term because the take is non-lethal and these type of activities have been authorized for

research studies for years without any long-term, measurable adverse affect. Based on past observations of similar research, these effects are expected to dissipate within approximately a day. Turtles can experience some discomfort during the application of external and/or internal tagging procedures and these procedures will produce some level of pain. The discomfort is usually short and highly variable between individuals (Balazs 1999). Most barely seem to notice, while a few others exhibit a marked response. However, NMFS expects that the small wound-site resulting from a tag applied to the flipper will heal completely in a short period of time, similar to what happens when a person's ear is pierced for an earring. Also, when done correctly, NMFS does not expect that individual turtles will experience more than short-term stresses during the application of the PIT tag. STSSN responders must adhere to data collection and tagging protocols that are designed to minimize the impact to the turtle. NMFS also assumes that any effects that may result from disentangling or treating a turtle are outweighed by the adverse effects that are likely to occur should no response or treatment be undertaken. Turtles found injured or entangled in debris or fishing gear are likely to incur additional injury, are more susceptible to predators, and can drown. Thus, disentanglement and treatment is likely to result in beneficial effects to the individual animal.

The number of live endangered sea turtles that are anticipated to be measured, weighed, tagged, disentangled or treated in the marine environment is low, and the effects are expected to be low level, and short-lived. In terms of frequency and magnitude of the effects, NMFS does not expect the proposed action to appreciably reduce any of the sea turtles' likelihood of survival and recovery in the wild by adversely affecting their birth, death, or recruitment rates.

The proposed action will only affect endangered sea turtles. The rule would have no significant impacts to EFH and would not impact coral reef ecosystems. It will not impact any other listed or non-listed species.

NMFS is not aware of any controversy or public concern over the activities conducted in the rule. These activities have been ongoing for 30 years and garner broad support among the public, academia, state and federal entities. Additionally, NMFS implemented similar activities for threatened sea turtles under a section 4(d) regulation (CFR 223.206(b)), and the FWS has similar regulations for both threatened and endangered sea turtles for activities in the terrestrial environment (CFR 17.21).

II.B. Permit: The environmental effects under this Alternative are those described for Alternative II.A, except STSSN Responders will now be required to hold a letter of Agreement and provide a curriculum vitae to NMFS. This additional administrative process will result in some level of cost to the STSSN Responder. However, the costs in terms of time and material would be expected to be minimal.

II.C. No Action: Under this Alternative, STSSN Responders would not be authorized to aid endangered sick, injured, entangled or stranded sea turtles, and to salvage, collect data from, and dispose of, dead carcasses of endangered sea turtles in the marine environment. This Alternative

would result in the most impact to the environment (biological) because the probability is greater that fewer endangered sea turtles would be treated or that data would be collected from carcasses, thus hampering knowledge about population status, movements, diseases, and causes of strandings. It is not likely to affect the socioeconomic environment, or pose a risk to public health and safety.

V. Discussion of Alternatives: Given the structure and function of the STSSN, NMFS believes the Proposed Action/Preferred Alternative (II.A) permit by regulation is more desirable than a programmatic permit (Alternative II.B). While Alternative II.B has been successful as an instrument to authorize activities for the Marine Mammal Health and Stranding Response Program (MMHSRP), there are differences between the two programs which compel NMFS to chose Alternative II.A. as the preferred action.

Authorities: The MMHSRP conducts its activities pursuant to the Marine Mammal Protection Act of 1972 (MMPA, 16 U.S.C 1361 *et seq.*) for all marine mammals and the ESA for listed marine mammals. The MMPA is less restrictive than the ESA with regard to takings. The MMPA allows marine mammal take if the purpose is to protect the mammal and/or the public, remove nuisance animals, and to import animals for display and research. The MMPA identifies 'take' to include euthanasia. The ESA does not authorize take to protect the public or to remove nuisance animals, nor does it authorize export or import of endangered species (exceptions are provided to Alaska natives) except through the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The ESA does not explicitly authorize euthanasia, but allows take for scientific purposes or to enhance the propagation or survival of the species under section 10. To clarify and reconcile the differences between the MMPA and ESA taking provisions, the MMHSRP permit identifies specific activities that are authorized under the ESA and cross references these exceptions with the mandates of the MMPA and CITES. The MMHSRP also identifies euthanasia as an enhancement activity for the purposes of ESA section 10. The MMHSRP permit is also held jointly by FWS and NMFS and covers all activities on land and water. Depending on the species, ESA-listed marine mammals fall under the jurisdiction of either the FWS or NMFS. Any activity associated with a particular species, regardless of whether such activity occurs on land or in the water, is authorized by the agency who has ESA jurisdiction.

By contrast, sea turtle conservation and recovery are achieved under only the ESA. On July 18, 1977, NMFS and FWS entered into a Memorandum of Understanding (MOU) which clearly defines jurisdiction; FWS is responsible for sea turtles on the nesting or basking beaches, while NMFS is the responsible agency when sea turtles enter the water. FWS has established permit authorities for responding to and rehabilitating sea turtles on land, as well as implementing regulations that allow response to injured or stranded endangered wildlife (50 CFR 17.21). The Proposed Action/Preferred Alternative does not include any activities related to beach stranding, rehabilitation, or euthanasia because these activities are authorized under the FWS. CITES import and export permits are also issued by FWS, and are not included in the Proposed Action/Preferred Alternative. The activities proposed to be authorized under the Proposed

Action/Preferred Alternative are less complex and more clearly divided between the FWS and NMFS compared to the activities authorized under the MMHSRP.

Biological Factors: In general, marine mammals birth single offspring, invest a high level of effort in offspring care, and have a low reproductive output. Over evolutionary history, to ensure reproductive success and survival, most marine mammals have developed a strong social cohesion. In the case of live stranded cetaceans, single stranded animals or mother/calf pairs that are ill or injured are more common than mass strandings. However, some species of marine mammals that tend towards the strongest social bonds are also involved in mass stranding events (see review Randall, *et. al*, 1999). Mass stranding events are defined as two or more cetaceans (excluding cow/calf pairs) coming ashore alive at the same time and place (Geraci and Lounsbury 1993). Mass strandings involve events where cetaceans or Sirenia intentionally or unintentionally swim into shallow water where they are unable to free themselves and resume normal activity; and situations where live pinnipeds are unable or unwilling to leave the beach due to injury or poor health. It is generally pelagic, social odontocetes who tend to be involved in cetacean mass stranding events, including short and long-finned pilot whales, white sided dolphins, melon headed whales, false killer whales, dwarf and pygmy sperm whales and the largest of the odontocetes, the sperm whale.

The causes of these strandings are complex and may be due to multiple factors including: local coastal conditions (e.g. currents; extreme or unusual tidal volume, etc.); navigational error resulting from geomagnetic anomalies, disorientation or impaired echolocation; predator avoidance; foraging behavior; and catastrophic environmental disasters (e.g., Exxon Valdez). It has also been suggested that these animals may be the "least fit" members of a given population. In contrast to a marine mammal die-off situations (such as the 1987-1988 dolphin die-off in the eastern U.S.; the 1996 Florida manatee die-off; or the 1991 European pinniped die-off), often only a small proportion of stranded individuals appear sick or injured, supporting that social cohesion - where the pod will follow a single individual - may be a contributing factor. However, the distinction between a die-off and a mass stranding is often blurred, since animals experiencing episodic mortality (die-off) may initiate, or come ashore as part of, a mass stranding.

Body size of marine mammal is extremely diverse. For example, the bottlenose dolphin (*Tursiops truncatus*) is approximately 3 m in length and weighs about 600 kg; whereas the sperm whale (*Physeter macrocephalus*) can reach lengths up to 18 m and weight in excess of 65 tons. In many cases, live strandings cannot be transferred to a rehabilitation center, and treatment, including euthanasia, must be carried out while the animal is in the water. In contrast each year hundreds of pinnipeds are successfully rehabilitated in treatment facilities and returned to the wild.

Sea turtles greatly differ from marine mammals with regard to biological factors related to stranding events. Sea turtles lay their eggs on beaches where the eggs incubate and hatch independent of the adult. Sea turtles have a high level of reproductive output with no parental care and do not form social constructs. Sea turtle strandings are not socially facilitated, nor do

stranding events generally consist of multiple individuals found alive in shallow water. On occasion, sea turtles will strand enmass due to cold-stunning. When water temperatures drop below a certain level, sea turtles become lethargic or comatose, a condition known as cold-stunning. In some cold-stunning cases, the turtles are found on the beach and not collected from the water. Live sea turtles found in the water are either treated on site and released because the injury is minor, or are transported to a rehabilitation facility for veterinary treatment. Because of their size, most sea turtles can be successfully transported to shore.

The activities conducted under the MMHSRP are complex involving the mandates of both the MMPA and ESA, include euthanasia, veterinary treatment outside of a rehabilitation facility, and involve mass live strandings in shallow water. The activities conducted under the MMHSRP are either authorized by the FWS or NMFS depending on the species and regardless of where the activity occurs. Thus, the MMHSRP permit is held jointly by FWS and NMFS with specific ESA activities as they relate to the MMPA and includes all activities in water and on land. Whereas, the activities conducted under the STSSN are less complex involving the mandates of the ESA only, do not include euthanasia, rarely include veterinary treatment outside of a rehabilitation facility, and do not involve mass live strandings in shallow water. The activities conducted under the STSSN are authorized along clearly divided jurisdictions: all activities on land are under the FWS whereas all activities in the water are under NMFS. Thus, STSSN activities in the water for endangered species are the activities requiring authorization. The proposed action/preferred alternative (II.A) programmatic permit by regulation provides a basis for conducting the STSSN activities in the water related to endangered sea turtles. The proposed action/preferred alternative (II.A) is consistent with the existing 4(d) regulation authorizing the same activities for threatened sea turtles and complements the FWS regulation for similar activities related to responding to endangered species.

The no action Alternative (II.C) is the least desirable because endangered sea turtles encountered in the water might not be responded to, leading to further harm and/or loss of the turtle, and loss of information about the cause of the stranding.

VI. Cumulative Impacts: Cumulative impact is the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Because possible impacts on the environment are limited to sea turtles, this EA addresses cumulative impacts to sea turtles only. The area affected by the Proposed Action/Preferred Alternative include all territorial waters of the U.S. Effects of past and ongoing human and natural factors (fisheries, maintenance dredging, existing research permits and other activities) occurring in this broad action area have contributed to the current status of the listed sea turtles.

Research Permits: There are currently 33 scientific research permits authorizing research on sea turtles within U.S. waters. Since the majority of research permits are issued for periods less than 5 years, current information on permits is a good proxy for past and foreseeable research. Research activities include basic sampling, health and biological assessment, and population assessment. Capture methods include trawls, handheld nets, circle nets, entangle gillnets, and

hand capture. Sampling includes, but is not limited to blood, tissue, bone, and lavage. These activities are authorized under strict protocols so that lethal take does not occur. However, occasionally a sea turtle may die as an unintentional outcome of the research. Research permits also include studies to determine gear modifications or fishing practices to reduce sea turtle interactions in fisheries. In these studies, lethal take is anticipated. Studies to determine ways to reduce sea turtle interactions and mortality from longline fisheries were conducted in the Northwest Atlantic from 2000-2004. NMFS anticipates further gear research in the Atlantic, Gulf of Mexico and possibly the Pacific.

Fisheries: There are multiple fisheries within the action area with diverse operations (gear use, season and area of operation, and level of effort) depending on target species. Sea Turtles have been documented to interact with many, however data on interactions are not collected on many.

In the Pacific, longline, troll, purse seine, and gillnets have been documented to interact with sea turtles. North Pacific albacore troll effort occurs in areas along the West Coast of North America from Vancouver Island to southern California. Fishing effort for swordfish by the CA/OR drift gillnet fishery primarily occurs in waters off San Diego, north to San Francisco, and within 300 miles of shore. Small numbers of swordfish are also caught between San Francisco and the California-Oregon border and within 125 miles of shore, and very few swordfish catches are made north of Oregon. Thresher shark are mainly targeted in waters near the Channel Islands. Sea turtles interact with longline gear operating out of Hawaii. The area fished ranges as close as 25 miles from Hawaii to thousands of miles from port. However, effort is controlled and large circle hooks are used to reduce sea turtle interactions. NMFS anticipates the fisheries will continue to operate in the future.

In the Atlantic, fisheries deploying gillnets, longlines, trawls, dredges poundnets, and pots have all been documented to interact with sea turtles. Gillnets are used to commercially land mackerel, squid, butterfish, bluefish and turtles can become entangled in the buoy lines of the gillnets or in the net panels. The sea scallop fishery is known to take sea turtles and uses trawl and dredge and operates mostly north of Cape Hatteras, North Carolina. Large mesh gillnets targeting monkfish, weakfish, and other species operate along the Mid-Atlantic. Seasonal effort occurs depending on the fishery. Multiple gear types are used in the Northeast Multispecies fishery. In the Northeast, however, the gear type of greatest concern is sink gillnet gear that can entangle sea turtles (*i.e.*, in buoy lines and/or net panels). The northeast multispecies sink gillnet fishery has historically occurred from the periphery of the Gulf of Maine to Rhode Island in water as deep as 60 fathoms. In recent years, more of the effort in the fishery has occurred in offshore waters and into the Mid-Atlantic. The Red crab fishery is a pot/trap fishery that occurs in deep waters along the continental slope. There have been no recorded takes of ESA-listed species in the red crab fishery. However, given the type of gear used in the fishery, takes of loggerhead and leatherback sea turtles may be possible where gear overlaps with the distribution. Traditionally, the main gear types used in the skate fishery include mobile otter trawls, gillnet gear, hook and line, and scallop dredges, although bottom trawls and gillnets are the most common gear type. The skate fishery operates from the tide line to depths exceeding 700m (383

fathoms). There have been no recorded sea turtle takes in the fishery. However, given that sea turtle interactions with trawl and gillnet gear have been observed in other fisheries, sea turtle takes in gear used in the skate fishery may be possible where the gear and sea turtle distribution overlap. The primary gear types for the Spiny dogfish fishery are sink gillnets, otter trawls, bottom longline, and driftnet gear. Spiny dogfish are landed in every state from Maine to North Carolina, throughout a broad area with the distribution of landings varying by area and season. During the fall and winter months, spiny dogfish are captured principally in Mid-Atlantic waters from New Jersey to North Carolina. During the spring and summer months, spiny dogfish are landed mainly in northern waters from NY to ME. Sea turtles can be incidentally captured in all gear sectors of this fishery. The Southeast shrimp trawl fishery affects more sea turtles than all other activities combined (NRC 1990). Even with the requirement to use turtle excluder devices in the Southeast shrimp trawl fishery, thousands of sea turtles are anticipated to be taken each year in this fishery. The Summer Flounder, Scup and Black Sea Bass fisheries are known to interact with sea turtles. These fish occupy similar habitat and are often caught at the same time. They are present in offshore waters throughout the winter and migrate and occupy inshore waters throughout the summer. The primary gear types used in the summer flounder, scup and black sea bass fisheries are mobile trawl gear, pots and traps, gillnets, pound nets, and handlines.

Dredging: The construction and maintenance of federal navigation channels has also been identified as a source of sea turtle mortality. Hopper dredges move relatively rapidly (compared to sea turtle swimming speeds) and can entrain and kill sea turtles, presumably as the drag arm of the moving dredge overtakes the slower moving sea turtle. A regional biological opinion with the COE's South Atlantic Division has been completed for the southeastern Atlantic waters. Consultation on a new regional opinion for the COE's Gulf of Mexico hopper dredging operations was completed in November, 2003. In Hawaii, the COE maintains the Barbers Point Deep Draft Harbor which includes dredging and construction projects over a 20-year period beginning in the mid-1990's. During the project, green sea turtles are anticipated to be harassed. COE activities are anticipated to continue into the future to provide the public with navigable waters.

Oil and Gas Exploration: The COE and the Minerals Management Service (MMS) authorize oil and gas exploration, well development, production, and abandonment/rig removal activities that also may adversely affect sea turtles. Both of these agencies have consulted with NOAA Fisheries on these types of activities for possible impacts to sea turtles. These activities include the use of seismic arrays for oil and gas exploration in the Gulf of Mexico, the impacts of which have been addressed in opinions for individual and multilease sales. These impacts are expected to result from vessel strikes, noise, marine debris, and the use of explosives to remove oil and gas structures. Oil and gas exploration is likely to continue in the action area.

Electrical Generating Plants: Another action with federal oversight (the Federal Energy Regulatory Commission and the Nuclear Regulatory Agency) which has impacts on sea turtles is the operation of electrical generating plants. Sea turtles entering coastal or inshore areas have been affected by entrainment in the cooling-water systems of electrical generating plants, though

it is important to note that almost all of the turtles are caught and released alive. These plants will continue to operate in the action area.

Vessel Strikes: Commercial traffic and recreational pursuits can adversely affect sea turtles through propeller and boat strikes. Private vessels participate in high speed marine events concentrated in the southeastern United States and are a particular threat to sea turtles. The magnitude of these marine events is not currently known. The STSSN also reports many records of vessel interaction (propeller injury) with sea turtles off coastal states such as New Jersey and Florida, where there are high levels of vessel traffic.

Coastal Development: Beachfront development, lighting and beach erosion control all are ongoing activities along the Gulf of Mexico and Atlantic coasts and Hawaii (note: nesting does not occur along the U.S. Pacific coast). These activities potentially reduce or degrade sea turtle nesting habitats or interfere with hatchling movement to sea. Humans have introduced exotic animals and/or vegetation to coastal beaches resulting in increased diseases and predation pressures. Nocturnal human activities along nesting beaches may also discourage sea turtles from nesting sites. The extent to which these activities reduce sea turtle nesting and hatchling production is unknown. However, more and more coastal counties are adopting stringent protective measures to protect hatchling sea turtles from the disorienting effects of beach lighting.

Marine Pollution: A number of activities that may indirectly affect listed species in the action area of this consultation include discharges from wastewater systems, dredging, ocean dumping and disposal, aquaculture, recreational fishing, and anthropogenic marine debris. The impacts from these activities are difficult to measure. Where possible, conservation actions are being implemented to monitor or study impacts from these sources. Sources of pollutants in the Pacific, Atlantic and Gulf of Mexico coastal regions include atmospheric loading of pollutants such as PCBs, storm water runoff from coastal towns, cities and villages, runoff into rivers emptying into the bays, groundwater and other discharges, and river input and runoff. Nutrient loading from land-based sources such as coastal community discharges is known to stimulate plankton blooms in closed or semi-closed estuarine systems. The effects on larger embayments is unknown. Although pathological effects of oil spills have been documented in laboratory studies of marine mammals and sea turtles (Vargo et al. 1986), the impacts of many other anthropogenic toxins have not been investigated.

Overall, the proposed action would not be expected to have more than short-term effects on endangered and sea turtles or the other portions of the affected environment discussed above. The incremental impact of the action when added to other past, present, and reasonably foreseeable future actions is considered to be minimal and not significant. The proposed action will increase survivorship for those turtles that are successfully treated and data collected will increase our understanding of threats that face these species and would outweigh any negative impacts that may occur.

VII. Compliance with Endangered Species Act: To comply with Section 7 of the regulations

(50 CFR §402.14(c)), a Section 7 Consultation was initiated by the NMFS Office of Protected Resources in accordance with Section 7 of the ESA of 1973, as amended (16 U.S.C. 1531 et seq.).

VIII. Compliance with the Magnuson-Stevens Act: Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) requires NMFS to complete an EFH consultation for any action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken by the agency that may adversely affect EFH. Consultation is required for renewals, reviews or substantial revisions of actions. The Office of Habitat Conservation was contacted and it was determined that the proposed action would not adversely impact Essential Fish Habitat (EFH). Therefore, no EFH consultation was necessary.

IX. Coordination with the National Ocean Service: The proposed action will not impact a National Marine Sanctuary, so no consultation was conducted.

X. Consideration of NOAA And CEQ Significance Criteria: NOAA Administrative Order 216-6 (NAO 216-6) identifies criteria, in addition to the Council on Environmental Quality's (CEQ) regulations at 40 C.F.R. Section 1508.27, for determining the significance of the impacts of an action for purposes of the National Environmental Policy Act (NEPA). NMFS has determined as a preliminary matter that this action will not have a significant impact on the environment and that an Environmental Impact Statement is not required. NMFS concludes this because of its initial views on each of the NAO 216-6 and CEQ criteria as follows:

1. *Are there any expected beneficial or adverse significant effects?* The STSSN activities will increase survivorship for individual sea turtles and data collected may contribute to better management and recovery of the species. Thus, the action is not expected to result in any significant adverse effects and is anticipated to provide beneficial effects. The STSSN abides by procedures that have been well-tested and follow NMFS protocols.
2. *Can the action be reasonably expected to have a substantial adverse impact on public health and safety and/or involve highly toxic agents or pathogens?* The proposed action involves resuscitating, handling, tagging, measuring, weighing and releasing sea turtles and it will not have any impact on public health and safety and does not involve any toxic agents or pathogens.
3. *Will the action affect any unique characteristics of the geographic area?* The action will not affect any unique characteristics of the geographic area.
4. *To what degree are the effects on the quality of the human environment expected to be highly controversial?* NMFS is not aware of any controversy or public concern over the activities in the proposed action. No public comments germane to the proposed rule were submitted.
5. *To what degree are the effects highly uncertain or involve unique or unknown risks?* The proposed action has been ongoing for 30 years and risks have been identified as minimal and are

not unique.

6. *To what degree will the action establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?* The decision will not establish a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration.

7. *Can the action be reasonably expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?* The action is not expected to result in any cumulative adverse effects to the species that are the subjects of the proposed action. No effects on non-target ESA listed species are expected.

8. *To what degree will the action adversely affect entities listed in or eligible for listing in the National Register of Historic Places, or may cause loss or destruction of significant scientific, cultural, or historic resources?* The action does not take place in any of the aforementioned areas.

9. *Can the action be reasonably expected to have a substantial adverse impact on endangered or threatened species, marine mammals, or critical habitat of these species?* A biological opinion was written for the proposed action, and its analysis concluded that the action is not likely to jeopardize the continued existence of any listed species and is not likely to destroy or adversely modify designated critical habitat. The action will not have an adverse impact on any marine mammals.

10. *Will the action result in a violation of Federal, state, or local law for environmental protection?* The action will not result in any violation of Federal, state or local laws for environmental protection.

11. *Will the action result in the introduction or spread of a nonindigenous species?* The action will not be removing nor introducing any species; therefore, it will not result in the introduction or spread of a nonindigenous species.

12. *Can the action be reasonably expected to allow substantial damage to the ocean and coastal habitats and/or essential fish habitat (EFH) as defined under the Magnuson-Stevens Act and identified in FMPs?* This action will not impact any national marine sanctuaries. No coral reef ecosystems will be affected. The activities proposed will not adversely affect EFH.

13. *Can the action be reasonably expected to have a substantial impact on biodiversity and ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?* The effects of the action on ESA listed species and their habitat, EFH and marine mammals were all considered. No substantial impact on biodiversity and ecosystem function within the affected area is expected. Turtles would be returned to the sea after they are disentangled, treated, sampled and tagged.

14. *Are significant social or economic impacts interrelated with significant natural or physical environmental effects?* There will be no significant social or economic impacts interrelated with significant natural or physical environmental effects.

XI. Conclusion: NMFS has, as a preliminary matter, determined that the proposed action is not controversial for environmental reasons; public health and safety are not affected; no unique geographic area is affected; and the effects of the STSSN activities are not highly uncertain, nor do they involve unique or unknown risks. The proposed action will not set a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration. There are no individually insignificant but cumulatively significant impacts associated with the proposed action, and there is no adverse effect on historic resources.

XII. Literature Cited:

- Balazs G.H. 1999. Factors to Consider in the Tagging of Sea Turtles. In: Eckert KL, Bjorndal KA, Abreu-Grobois FA, Donnelly M, editors. Research and Management Techniques for the Conservation of Sea Turtles. IUCN/SSC Marine Turtle Specialist Group Publication No 4.
- Ehrhart L.E. and Ogren L.H. 1999. Studies in foraging habitats: capturing and handling turtles. In: Eckert KL, Bjorndal KA, Abreu-Grobois FA, Donnelly M, editors. Research and Management Techniques for the Conservation of Sea Turtles. IUCN/SSC Marine Turtle Specialist Group Publication No 4.
- Geraci, J.R. and V.J. Lounsbury. 1993. Marine mammals ashore: a field guide to strandings. Texas A&M University Sea Grant College Program, Galveston, TX. 305 pp.
- Randall, S.W., D.J. Boness, and G.B. Rathbun. 1999. Behavior *In: Biology of Marine Mammals*. Editors: Reynolds, J.E. and S.A. Rommel. Smithsonian Institution Press pp: 324-422.
- Vargo, S., P. Lutz, D. Odell, E. Van Vleet, and G. Bossart. 1986. The effects of oil on marine turtles. Final Report, Vol. 2. Prepared for Mineral Management Services, U.S. Department of Interior. OCS Study MMS 86-0070.

Attachment

Finding of No Significant Impact

The preferred alternative involves NMFS issuance of a final rule to any agent or employee of NMFS, the U.S. Fish and Wildlife Service (FWS), the U.S. Coast Guard, or any other Federal land or water management agency, or any agent or employee of a state agency responsible for fish and wildlife, when acting in the course of his or her official duties, to take endangered sea turtles encountered in the marine environment if such taking is necessary to aid a sick, injured, or entangled endangered sea turtle, or dispose of a dead endangered sea turtle, or salvage a dead endangered sea turtle that may be useful for scientific and educational purposes.

Impacts to the human environment, both beneficial, adverse and cumulative, were evaluated in this document and are not significant.

The preferred alternative allows handling, tagging, measuring, and weighing which can result in physiological effects on sea turtles. However, NMFS believes that these activities would have a relatively low level, short-term physiological effect on the individual animal. NMFS also assumes that any effects that may result from disentangling or treating a turtle are outweighed by the adverse effects that are likely to occur should no response or treatment be undertaken. Turtles found injured or entangled in debris or fishing gear are likely to incur additional injury, are more susceptible to predators, and can drown. Thus, disentanglement and treatment is likely to result in beneficial effects to the individual animal.

The preferred alternative will only affect endangered sea turtles. The rule would have no significant impacts to EFH and would not impact coral reef ecosystems. It will not impact any other listed or non-listed species.

In view of the analysis presented in this document, it is hereby determined that the implementation of the preferred alternative, will not significantly affect the quality of the human environment with specific reference to the criteria contained in NAO 216-6 regarding compliance with the National Environmental Policy Act. Accordingly, the preparation of an Environmental Impact Statement for this proposed action is unnecessary.

for Rebecca Hew
William T. Hogarth
Assistant Administrator for Fisheries,
National Marine Fisheries Service

Date 7/11/05

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