



To All Interested Government Agencies and Public Groups:

OCT 12 2011

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

TITLE: Supplemental Environmental Assessment for Emergency Action Issuance of a Modification to Scientific Research Permit No. 1551-02 for Research on Protected Sea Turtles

LOCATION: Gulf of Mexico

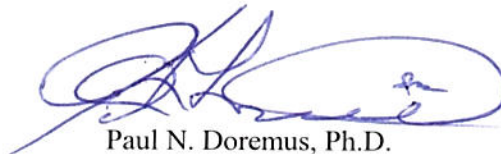
SUMMARY: The National Marine Fisheries Service (NMFS) proposes to issue a modification to Scientific Research Permit No. 1551-02 for takes under the authority of the Endangered Species Act. The purpose of the research is to assess injury to pelagic sea turtles from MC252 oil exposure as part of the Natural Resource Damage Assessment. The preferred alternative is expected to result in no more than short-term minimal disturbance of sea turtles and will not significantly impact the quality of the human environment.

RESPONSIBLE OFFICIAL: James H. Lecky
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The environmental review process led us to conclude that this action will not have a significant effect on the human environment. Therefore, an environmental impact statement will not be prepared. A copy of the finding of no significant impact (FONSI) including the supporting supplemental environmental assessment (SEA) is enclosed for your information.

Although NOAA is not soliciting comments on this completed SEA/FONSI we will consider any comments submitted that would assist us in preparing future NEPA documents. Please submit any written comments to the responsible official named above.

Sincerely,



Paul N. Doremus, Ph.D.
NOAA NEPA Coordinator

Enclosure





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

Supplemental Environmental Assessment for Emergency Action
Issuance of a Modification to Scientific Research Permit No. 1551-02
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1.0 INTRODUCTION

1.1 Background

On April 20, 2010, a fire and explosion occurred aboard the semisubmersible Mississippi Canyon (MC) 252 drilling platform *Deepwater Horizon* roughly 80 km southeast of the Mississippi Delta. The platform had over 700,000 gallons of fuel aboard, which likely burned, escaped, or sank with the platform (www.restorethegulf.gov). Once the platform sank, the riser pipe connecting the platform to the wellhead on the seafloor broke in multiple locations, initiating an uncontrolled release of oil from the exploratory well. Oil leaked into the Gulf of Mexico (Gulf) at an estimated rate of 53,000 to 62,000 barrels per day from three leaks in damaged piping on the sea floor from the Deepwater Horizon incident which was declared a Spill of National Significance (SONS) on April 29, 2010 (Federal Interagency Solutions Group 2010). A SONS is defined as "a spill that, due to its severity, size, location, actual or potential impact on public health and welfare or the environment, or necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and clean up the discharge" and allows greater federal involvement.

Over the next three months, oil was released into the Gulf, resulting in oiled regions of Texas, Louisiana, Mississippi, Alabama, and Florida and widespread oil slicks throughout the northern Gulf that closed more than one-third of the Gulf Exclusive Economic Zone to fishing due to contamination concerns. Apart from the widespread surface slick, massive undersea oil plumes formed, possibly through the widespread use of dispersants and reports of tarballs washing ashore throughout the region were common. Although estimates vary, NOAA has estimated that 4.9 million barrels of oil were released (Lubchenco et al. 2010). A variety of marine species have been impacted by the spill, including protected marine mammals and sea turtles. As of November 2, 2010, 1,145 sea turtle strandings in the Gulf were documented, of which 473 animals were visibly oiled (http://www.nmfs.noaa.gov/pr/pdfs/oilspill/species_data.pdf). However, specific causes of injury or death have not yet been established for many of these individuals as investigations into the role of oil in these animals' health status continue.

To study impacts to natural resources in the wake of an oil spill or the release of a hazardous substance into the environment, the damage assessment process known as the Natural Resource Damage Assessment (NRDA) was created with the Oil Pollution Act (OPA) in 1990. To help determine the type and amount of restoration needed to compensate the public for harm to natural resources, including protected species, as a result of the spill, a NRDA is being conducted by NOAA and co-trustee agencies. The Proposed Action would address potential impacts to sea turtle assemblages in the Gulf as part of the NRDA.

1.2 Purpose and Need for Action

Description of Action

In response to receipt of a request from the NMFS Southeast Fisheries Science Center (Responsible Party: Bonnie Ponwith) NMFS proposes to issue a modification to scientific

research Permit No. 1551-02 that authorizes “takes”¹ of sea turtles in the wild pursuant to the Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 *et seq.*) and the regulations governing the taking, importing, and exporting of endangered and threatened species (50 CFR Parts 222-226).

Purpose and Need

The purpose of the permit is to provide an exemption from the take prohibitions under the ESA to allow “takes” for *bona fide* scientific research. The permit modification would authorize the additional take of green, *Chelonia mydas*, loggerhead, *Caretta caretta*, Kemp’s ridley, *Lepidochelys kempii*, leatherback, *Dermochelys coriacea*, and unidentified hardshell sea turtles during aerial surveys in areas impacted by the Deepwater Horizon oil spill to assess threats to sea turtles and impacts of potential oil exposure to sea turtles in relation to the spill. The need for issuance of the permit is related to NMFS’ mandates under the ESA. Specifically, NMFS has a responsibility to implement the ESA to protect, conserve, and recover threatened and endangered species under its jurisdiction. The ESA prohibits takes of threatened and endangered species, respectively, with only a few very specific exceptions, including for scientific research and enhancement purposes. Permit issuance criteria require that research activities are consistent with the purposes and policies of these federal laws and would not have a significant adverse impact on the species or stock. The proposed permit would allow the applicant to better address recovery plan goals providing information on sea turtle species essential to their conservation and management.

In light of the potential impacts of the MC 252 oil spill on sea turtle assemblages in the Gulf, assessing damage to sea turtles and other natural resources in the coming months is critical. Under the ESA, the above target sea turtle species are listed as endangered or threatened. Each of these species can be found, at various points of the year, within the waters of the Gulf (Eckert et al. 1999). As such, the potential for adverse impacts on listed sea turtles is present and the need to document and assess those impacts is paramount and required as part of the NRDA of the spill.

1.3 Other EA/EIS that Influence the Scope of this SEA

An Environmental Assessment (EA; NMFS 2008) was prepared for issuance of the original Permit (No. 1551) in 2008 which resulted in a finding of no significant impact (FONSI), determining that issuance of the action and conduct of the associated research would not have measurable impacts on the physical, social, or economic environment but could result in harassment, as defined in the ESA, of sea turtles. The analyses focused on potential impacts to the biological environment, especially sea turtles. NMFS determined that the proposed harassment to sea turtles would not result in significant impacts to any portion of the human environment. In addition, a biological opinion was prepared for the action finding that the action

¹ The ESA defines “take” as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” The term “harm” is further defined by regulations (50 CFR §222.102) as “an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns including breeding, spawning, rearing, migrating, feeding, or sheltering.”

would not jeopardize the continued existence of any threatened or endangered species or result in destruction or adverse modification of any critical habitat.

Because the Proposed Action would not change the area, timing or manner of currently authorized research activities, they are not re-examined in this SEA. Therefore, the scope of this SEA is limited to the potential impacts to sea turtles associated with the proposed increases in the number of turtles harassed during aerial surveys.

Research Objectives

Under the ESA, NMFS is responsible for the conservation and recovery of most endangered and threatened species occurring in the marine environment. Scientific research is an important means of gathering valuable information about these species and is necessary to conserve them and promote their recovery.

To collect information on pelagic sea turtles in the Gulf, the applicant proposes to conduct scientific research on green, leatherback, Kemp's ridley, loggerhead and unidentified hardshell sea turtles in the Gulf. The objectives of this work would be to assess potential injury from Mississippi Canyon 252 oil on sea turtle populations in the northern Gulf as part of the post-spill NRDA of the BP Deepwater Horizon event.

The Proposed Action would modify the existing permit by increasing the number of sea turtles (an additional 75 leatherback, 1,150 loggerhead, 75 green, 100 Kemp's ridley, and 900 unidentified hardshell sea turtles annually) that may be harassed during aerial surveys authorized by the permit. The need for scientific research on sea turtles in oil-affected waters is important as it would provide managers with critical data on the impacts of the MC 252 oil spill on sea turtle populations of the Gulf as part of the NRDA.

2.0 MANAGEMENT ALTERNATIVES

This chapter describes the range of potential actions (alternatives) determined reasonable with respect to achieving the stated objective, as well as alternatives eliminated from detailed study. This chapter also summarizes the expected outputs and any related mitigation of each alternative. Two alternatives are being considered in this SEA. Descriptions of the environmental consequences associated with each alternative can be found in Ch. 4 along with the biological environments affected by this action.

Alternative 1: No Action. Deny the permit modification request to conduct NRDA research on sea turtles. Under this alternative, Permit No. 1551-02 would remain valid and research would continue to occur as currently authorized by the permit. Mitigating conditions of the permit would remain in effect (See Permit No. 1551-02 for conditions).

Permit No. 1551-02 authorizes research on loggerhead, green, Kemp's ridley, olive ridley (*Lepidochelys olivacea*), hawksbill (*Eretmochelys imbricata*), and leatherback sea turtles in coastal and inshore waters of the North Atlantic, Gulf of Mexico and Caribbean Sea. Turtles

may be harassed during aerial and vessel surveys and taken by direct capture methods. Researchers may also access animals legally captured incidental to fishing activities. Researchers are authorized to conduct a variety of sampling and tagging activities on captured animals to collect biological and ecological information on these species that will aid conservation of the species.

Alternative 2: Proposed Action (Issuance of permit modification with conditions): Under the Proposed Action alternative, a permit modification would be issued for activities as proposed by the SEFSC, with the permit terms and conditions standard to such permits as issued by NMFS. All existing conditions in the permit would remain in effect and can be found in the draft permit, No. 1551-03, prepared for this action. Mitigating conditions specific to aerial surveys are: 1) limiting the minimum altitude at which aircraft may be flown and 2) prohibiting flights over marine mammal haulouts. The proposed modification would be valid through July 1, 2013.

NMFS proposes to modify the permit to increase the number of green, loggerhead, Kemp's ridley, leatherback, and unidentified hardshell sea turtles harassed during aerial surveys as detailed in the below table. Aerial survey takes are authorized in Table 3 of the permit.

Species	Current Authorized No. Annual Takes under Permit No. 1551-02	Proposed No. Annual Takes
Loggerhead sea turtle	850	2,000
Green sea turtle	275	350
Kemp's ridley sea turtle	300	400
Leatherback sea turtle	425	500
Unidentified hardshell sea turtle	1,100	2,000

Duration

The proposed changes to the permit would be valid through the life of the permit, set to expire on July 1, 2013, to accommodate objectives and data needs for the NRDA.

Area

The action area authorized by the current permit would not change as a result of the modification. Research is authorized to occur in coastal and inshore waters of the North Atlantic, Gulf of Mexico and Caribbean Sea and their associated estuaries and embayments. Aerial surveys for NRDA would specifically occur in the northern Gulf of Mexico.

Methods

Aerial surveys would occur in the same manner as previously described in the 2008 EA for the permit. Additional information on the specific surveys that would be flown for NRDA can be found in the SEFSC's permit modification request. Existing permit conditions that mitigate potential impacts during surveys would remain in effect. No additional permit conditions would be required for the issuance of the modification.

Comparison of Alternatives

In **Alternative 1** (No Action), the application for scientific research on sea turtles in the areas affected by the Deepwater Horizon oil spill would be denied. This alternative would represent the loss of a unique research opportunity to obtain biological data on sea turtle assemblages in the areas impacted by the Deepwater Horizon oil spill. These data can only be collected in a narrow window of time following the spill in order for NRDA to assess the species' risk of exposure and injury from the spill.

The **Proposed Action** would allow NMFS to permit additional takes of green, loggerhead, Kemp's ridley, leatherback, and unidentified hardshell sea turtles during scientific research on sea turtles in areas impacted by the Deepwater Horizon oil spill and assess threats to sea turtles and impacts of potential oil exposure to sea turtles in relation to the spill. Compared to the no action alternative, this alternative would result in the short-lived minimal harassment of additional sea turtles during aerial surveys. However, as discussed in the following chapters, these effects would not result in impacts at the population or species level. Collecting this information would fill gaps in understanding on sea turtle ecology, identify impacts of the oil spill to sea turtles under NRDA, and allow managers to take more effective conservation measures to help recover these species. As discussed above, this data can only be collected for a limited time and is essential to learning how endangered and threatened sea turtles are impacted by oil spills.

3.0 AFFECTED ENVIRONMENT

A brief description of the affected environment is included here. More detailed descriptions of the existing affected environment for the current permit can be found in the 2008 EA and are incorporated by reference.

The 2008 EA described and analyzed waters of the North Atlantic Ocean, Caribbean Sea, Gulf of Mexico and their associated embayments and estuaries. This includes essential fish habitat and a suite of protected areas, such as wildlife refuges and National Marine Sanctuaries. These areas would still be permitted under the Proposed Action. Research would not involve any sites listed in or eligible for the National Register of Historic Places or any cultural or historic resources. Public health and safety are not impacted by the currently permitted or the proposed activities.

Because the permit modification would only increase the number of sea turtles that may be harassed during authorized aerial surveys, the Proposed Action would not affect any physical habitat, including the water column, bottom habitat, and essential fish habitat. Nor does NMFS expect significant impacts to the socioeconomic environment. Due to the nature of the proposed research, NMFS does not expect the physical, social and economic environment to be impacted in a manner not previously analyzed in the 2008 EA. That EA determined that impacts to these aspects of the human environment would not be significant. Therefore, they are not considered further in this SEA.

The Proposed Action involves sea turtles that would be taken during aerial surveys. The affected biological environment therefore is limited to the target endangered and threatened sea turtles: green, Kemp's ridley, leatherback, loggerhead, and unidentified hardshell sea turtles. The status of these species has not changed since the preparation of the 2008 EA. However, NMFS revised the status of some loggerhead sea turtle populations from threatened to endangered. A brief update to the 2008 EA for loggerheads is provided here.

Loggerhead sea turtle

Loggerheads occur throughout the temperate and tropical regions of the Atlantic, Pacific, and Indian Oceans and inhabit continental shelves and estuarine environments. Developmental habitat for small juveniles includes the pelagic waters of the North Atlantic Ocean and the Mediterranean Sea.

Adults have been reported throughout the range of this species in the United States and throughout the Caribbean Sea. Non-nesting, adult female loggerheads are reported throughout the United States and Caribbean Sea; however, little is known about the distribution of adult males who are seasonally abundant near nesting beaches during the nesting season. Aerial surveys suggest that loggerheads (benthic immatures and adults) in U.S. waters are distributed in the following proportions: 54 percent in the southeast U.S. Atlantic, 29 percent in the northeast U.S. Atlantic, 12 percent in the eastern Gulf of Mexico, and 5 percent in the western Gulf of Mexico (TEWG 1998).

The loggerhead was listed as a threatened species in 1978. Critical habitat has not been designated for the loggerhead. The recent loggerhead status review (Conant et al. 2009) concluded that there are nine loggerhead distinct population segments (DPSs). These include the North Pacific Ocean DPS; the South Pacific DPS; the North Indian Ocean DPS; the Southeast Indo-Pacific Ocean DPS; the Southwest Indian Ocean DPS; the Northwest Atlantic Ocean DPS; the Northeast Atlantic Ocean DPS; the Mediterranean Sea DPS; and the South Atlantic Ocean DPS. The information provided in the status review represents the most recent and available information relative to the status of this species. On September 16, 2011 NMFS formally designated the loggerhead with these nine DPS' worldwide. Of these DPS', five are listed as endangered: Northeast Atlantic Ocean DPS, Mediterranean Sea DPS, North Indian Ocean DPS, North Pacific Ocean DPS and South Pacific Ocean DPS.

A more detailed analysis of the status of these species can be found in the Biological Opinion prepared for this SEA. Any marine mammals encountered and potentially harassed during aerial surveys would be covered by the SEFSC's existing Marine Mammal Protection Act/ESA permit that authorizes harassment during aerial surveys. The Proposed Action is solely for the increase in take of the target sea turtle species and therefore does not consider non-target species further in this SEA.

4.0 ENVIRONMENTAL CONSEQUENCES

This section provides a comparison of the alternatives described in Ch. 2. The direct, indirect, and cumulative effects on the biological environment for each management alternative are described. This section also describes: 1) any unavoidable adverse effects resulting from the Proposed Action and 2) any irreversible or irretrievable commitments of resources resulting from implementation of the Proposed Action.

CEQ regulations (40 CFR 1508.8) define direct effects as those “which are caused by the action and occur at the same time and place.” Indirect effects are defined as those “which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” Cumulative effects are defined as “impacts on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions.”

4.1 EFFECTS OF ALTERNATIVE 1: No Action

The No Action alternative would limit impacts to the target sea turtles from the proposed action by not allowing additional animals to be harassed during surveys. Thus the chance that a target animal could be repeatedly harassed would also be reduced under this alternative. As discussed in the 2008 EA, animals may experience short-term harassment from the aircraft passing overhead. However, the disturbance would be minimal and short lived with animals recovering within minutes. The aerial surveys for NRDA are ongoing and surveys would continue until the SEFSC runs out of annual takes for sea turtles under the existing take levels authorized by Permit No. 1551-02. Other research activities currently authorized by Permit No. 1551-02 would continue under the Status Quo. However, under this alternative the scientific community would lose the opportunity to collect valuable data from turtles caught in areas impacted by the MC 252 oil spill and information that could aid the understanding of turtle habitat use in the action area in response to the oil spill. These surveys, and thus the increase in takes, are critically needed due to the lack of quantitative abundance and distribution data existing for sea turtles in the Gulf of Mexico.

4.2 EFFECTS OF ALTERNATIVE 2: Issue permit modification with standard conditions

Because this modification focuses on increasing take levels for currently authorized research activities, impacts of this alternative would be limited primarily to the biological environment. The type of activities proposed in the permit modification request would be unlikely to affect the physical or socioeconomic environment or pose a risk to public health and safety.

Environmental Consequences to the Biological Environment – Sea Turtles

The environmental consequences to the biological environment for currently authorized research activities have not changed from how they were described in the 2008 EA. As analyzed in the 2008 EA, sea turtles may or may not respond to an aircraft passing overhead depending upon the altitude of the plane, the proximity of the turtle to the trackline, and the turtle itself. SEFSC staff conducting aerial surveys have conservatively estimated that approximately 30-50% of the sea

turtles near the track line flown around 500 feet could react to the survey craft. An animal's reaction to an aerial survey may include diving as the plane is approaching or passing directly over the turtle. This behavior is expected to be within the normal spectrum of behaviors the animal might experience naturally, and would have a very minimal impact on sea turtles. Turtles would be expected to resume their previous behavior minutes after reacting to the survey. Thus, the currently authorized aerial surveys are expected to result in no more than short-lived minimal harassment of individual animals. No serious injuries or mortalities would be expected. Therefore, the following discussion focuses on the effects of the increase in take on the target sea turtle populations.

Effect of Take Increase

The issue most relevant to this analysis is the potential for negative impacts on the target species. It is important to recognize that an adverse effect on a single individual or a small group of animals does not translate into an adverse effect on the population or species unless it results in reduced reproduction or survival of the individual(s) that causes an appreciable reduction in the likelihood of survival or recovery for the species. In order for the Proposed Action to have an adverse effect on a species, the exposure of individual animals to the research activities would first have to result in:

- ▶ direct mortality,
- ▶ serious injury that would lead to mortality, or
- ▶ disruption of essential behaviors such as feeding, mating, or nursing, to a degree that the individual's likelihood of successful reproduction or survival was substantially reduced.

That mortality or reduction in the individual's likelihood of successful reproduction or survival would then have to result in a net reduction in the number of individuals of the species. In other words, the loss of the individual or its future offspring would not be offset by the addition, through birth or emigration, of other individuals into the population. That net loss to the species would have to be reasonably expected, directly or indirectly, to appreciably reduce the likelihood of both the survival and recovery of the listed species in the wild.

Although the total number of animals harassed would increase as a result of the Proposed Action, aerial surveys would not result in the serious injury, mortality or reduced reproductive success of the target species. Therefore the Proposed Action is not expected to significantly impact individual sea turtles, their populations or species. In addition, the Biological Opinion prepared for this action determined that the Proposed Action would not jeopardize the continued existence of any threatened or endangered species or result in destruction or adverse modification of any critical habitat (NMFS 2011).

In summary, NMFS does not expect that mortality or serious injury of any species would occur as a result of the Proposed Action. Impacts to individual sea turtles are likely to be minimal and short-lived. Any effects of the proposed research activities are not expected to adversely affect the survival, longevity, or lifetime reproductive success of any age class of species. Therefore, NMFS does not expect that the proposed activities would adversely affect any species at the population or species levels or have significant effects on them.

4.3 Cumulative Effect Analysis

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7). Cumulative effects can either be additive or synergistic. A synergistic effect is when the combined effects are greater than the sum of the individual effects.

Historically, one of the major contributors to declines in sea turtle populations was the commercial harvest of eggs and turtles. Today, target sea turtles may be adversely affected by human activities including commercial and recreational fishing (as bycatch via entrapment and entanglement in fishing gear), habitat degradation, and tourism and recreation (via harassment from human approach and presence) within the action area. Of these, disturbance that results in displacement of animals or abandonment of behaviors such as feeding or breeding by groups of animals are more likely to have cumulative effects on the species than entanglement of animals in fishing gear. In addition, the target species benefit from other human activities operated by Federal, state, and local agencies and organizations including management, conservation, and recovery efforts, nest monitoring, education and outreach, and stranding response programs.

In addition to the above information on the threats to target sea turtle species, the 2010 Deepwater Horizon oil well blowout has impacted green, leatherback, Kemp’s ridley, loggerhead, and hawksbill sea turtles in the Gulf of Mexico. As noted in Ch. 1, based on the number of animals collected, the event has resulted in the live or dead stranding of more than 1,100 sea turtles. However, this is likely an underestimate of the number of sea turtles impacted by the spill because: 1) it is unlikely that all oiled animals were documented and 2) additional sea turtles were observed within oiled waters but were unable to be captured during the response. The overall degree and extent to which the populations and species have been impacted is not known at this time; however, researchers and managers are currently working to assess and quantify impacts through efforts including the Proposed Action. The Biological Opinion (NMFS 2011) prepared for this action evaluated the potential impacts of the spill to the target sea turtle species, including the exposure to oil, use of dispersants, and other response activities that could harm sea turtles. The Biological Opinion concluded that the Proposed Action would not likely jeopardize the continued existence of any of the species and would not likely destroy or adversely modify designated critical habitat.

Research on sea turtles in the United States is carefully controlled and managed so that it does not operate to the disadvantage of the species. In addition to permits issued by NMFS for the scientific research of sea turtles in the marine environment, similar ESA Section 10 federal permits are issued by the USFWS for the taking of endangered and threatened sea turtles on land for activities and efforts that aid the conservation and recovery of these species.

Appendix 1 lists the permits, including No. 1551-02, that authorize sea turtle research in an area that overlaps with the action area (North Atlantic, Caribbean Sea, and Gulf of Mexico). There is not enough information about the exact location and timing of the research under the various permits to specifically identify the extent of overlap in time and space of all of the permitted research, or to identify the frequency with which any given local population may be disturbed. However, it should be noted that most of these permits work in a much smaller action area, such as a particular embayment, than the area authorized by Permit No. 1551-02. Because the effects

of many individual research activities (e.g., a survey, a field trip to capture animals) are short-term, lasting minutes to days following the research event, animals are likely to recover from research activities before they could be targeted by the applicant. Further, most of these permits do not authorize takes for aerial surveys. Because all current permit conditions would remain in the modified permit, the SEFSC would continue to be required to coordinate the timing of research activities with other researchers that may be in the area to minimize cumulative impacts to the target species.

Given the required coordination and NOAA's efforts to coordinate research as part of NRDA, NMFS does not expect that the Proposed Action would result in cumulative significant impacts to the target sea turtle species. In addition, permitted researchers are also required to notify the appropriate NMFS Regional Office at least two weeks in advance of any planned field work so that the Regional Office can facilitate the coordination of research permits and other human activities in the area and take steps appropriate to minimize disturbance from multiple activities.

The proposed permit modification would increase takes and potential impacts to the target sea turtles species. Whether this additional level of disturbance, by itself or in combination with disturbance from other permitted research, would result in cumulative adverse effects depends on how long the effects of each disturbance last, whether the animals have sufficient time between disturbance events to resume or compensate for disrupted activities, and whether the effects of repeated disturbance are additive, synergistic or accumulate in some other way. However, as previously discussed, NMFS limits repeated harassment of individual turtles and avoids unnecessary duplication of research efforts by requiring coordination among Permit Holders. All scientific research permits are also conditioned with mitigation measures to ensure that the research impacts target and non-target species as minimally as possible. Further, the effects of the proposed increase in takes by aerial surveys are short-term, dissipating within minutes of the research event, impacting individual animals. These activities are not likely to result in the serious injury, mortality or reduced fecundity of target animals. Given this low degree of adverse impacts and the mechanisms in place to limit repeated disturbance of individual animals, NMFS does not expect the increase in takes for this activity in the action area to significantly impact sea turtles at the population or species level.

The Proposed Action is not related to other actions with individually insignificant but cumulatively significant impacts. The Deepwater Horizon oil spill event itself is expected to lead to cumulatively significant impacts on the physical, biological, and human environment, but the Proposed Action to permit sea turtle research in areas affected by the oil spill is not expected to exacerbate the situation. In general, the Proposed Action would provide resource managers with important information on sea turtle assemblages, including how they may be impacted by the Deepwater Horizon oil spill. NMFS' Proposed Action is not anticipated to have significant direct, indirect, or cumulative effects on the biological, physical, and socioeconomic environment. To the extent that future longer-term management actions and restoration decisions are made, NMFS would conduct future environmental reviews and consider the oil spill within the environmental context of the effects of a proposed action and alternatives.

Summary of Cumulative Effects

It is likely that issuance of the proposed permit would have some adverse effects on target animals. These adverse effects would likely be additive to those resulting from disturbance under other permits, and to disturbances related to other human activities in the action area. Some animals may be acclimated to a certain level of human activity and may be able to tolerate disturbance associated with these activities with little adverse impacts on population or species vital rates. However, even animals acclimated to a certain level of disturbance may be adversely affected by additive effects that exceed their tolerance threshold. Based on the review of past, present and future actions that impact the target species, the incremental contribution of the short-lived impacts associated with the Proposed Action is not anticipated to result in significant cumulative impacts to the target animals or other portions of the human environment.

The Proposed Action would not be expected to have more than short-term effects on individual endangered and threatened sea turtles. Any increase in stress levels resulting from the research would dissipate within minutes. No serious injury or mortality would be expected to result from the increase in take during surveys. NMFS does not expect the Proposed Action to appreciably reduce the species' likelihood of survival and recovery in the wild because it would not likely adversely affect their birth rates, death rates, or recruitment rates. In particular, NMFS does not expect the Proposed Action to affect adult female turtles in a way that appreciably reduces the reproductive success of adults, the survival of young, or the number of young that annually recruit into the breeding populations of any of the target species.

Based on this information, the incremental impact of the Proposed Action, when added to other past, present, and reasonably foreseeable future actions, would not be significant at a population or species level.

LIST OF PREPARERS

This SEA was prepared by Amy Hapeman with the NMFS, Office of Protected Resources in Silver Spring, Maryland.

Agency Consulted: National Ocean Service, Office of Response and Restoration, Assessment and Restoration Division

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APPENDIX 1. Permits Authorizing Directed Takes for the Target Sea Turtle Species in the Action Area. * Indicates the applicant's existing permit for the Proposed Action.

Permit Number	Permit Holder	Expiration Date
14726-01	Blair Witherington, FFWCC	September 15, 2015
14506	Llewellyn Ehrhart	September 15, 2015
13573	Michael Salmon	May 1, 2012
14622-01	Allen Foley, FFWCC	February 28, 2016
14949	Carlos Diez	April 29, 2016
15606	Andre Landry	March 30, 2016
13543	South Carolina DNR	April 30, 2014
1551-02*	NMFS SEFSC	July 1, 2013
15552	NMFS SEFSC	July 1, 2016
1570	NMFS SEFSC	December 31, 2011
1571	NMFS SEFSC	December 31, 2011
1576	NMFS NEFSC	September 30, 2011
1599	Inwater Research Group Inc.	June 30, 2012
13306	Karen Holloway-Adkins	June 30, 2013
10022-01	Ray Carthy	April 30, 2013
14655	Jane Provanca	June 1, 2015
15566	South Carolina DNR	April 30, 2016
1527	Virginia Institute of Marine Science	April 1, 2012
10014	New Jersey DEP	December 31, 2012
13307	Kristen Hart	June 30, 2013
13544	Jeffrey Schmid	April 30, 2014

1557	Molly Lutcavage	June 30, 2012
14279	Coonamesett Farm Foundation	October 31, 2014
14508	Inwater Research Group, Inc.	June 1, 2015
14949	Carlos Diez	April 29, 2016
15135	Blake Price	December 31, 2012
15112	NEFSC	January 1, 2016

Authorized Mortality

No. 1576 authorizes the lethal take of up to 23 loggerhead, 1 green, 1 leatherback, and 1 Kemp's ridley sea turtles annually associated with scallop dredging, in addition to the death of 1 loggerhead and 1 Kemp's ridley over the course of the permit, through 2011, for their satellite tagging project.

No. 1570 authorizes the lethal take of up to 3 loggerhead, 2 green, 1 leatherback, 2 Kemp's ridley, 1 hawksbill, and 1 olive ridley sea turtle over the course of the permit through 2011.

No. 15135 authorizes the lethal take of 5 loggerhead, 5 Kemp's ridley, 2 hawksbill, 2 leatherback, and 15 green sea turtles over the life of the permit, through 2012.

No. 14949 authorizes the annual lethal take of 2 green sea turtles by euthanasia for severe cases of FP.

No. 15606 authorizes the lethal take of up to 2 hardshell sea turtles (hawksbill, green, loggerhead, or Kemp's ridley) over the life of the permit, through March 2016.



OCT 11 2011

**Finding of No Significant Impact
Issuance of Scientific Research Permit No. 1551-03**

Background

In July 2011, the National Marine Fisheries Service (NMFS) received an application to modify Permit No. 1551-02 from the NMFS Southeast Fisheries Science Center (Responsible Party: Bonnie Ponwith), to increase the annual take of sea turtles during authorized aerial surveys. In accordance with the National Environmental Policy Act, NMFS has prepared a Supplemental Environmental Assessment (SEA) analyzing the impacts on the human environment associated with permit issuance [SEA for Emergency Action Issuance of a Modification to Scientific Research Permit No. 1551-02 for Research on Protected Sea Turtles]. In addition, a Biological Opinion (BO) was prepared under the Endangered Species Act (ESA) (October 2011) summarizing the results of an intra-agency consultation. The analyses in the SEA, as informed by the BO, support the below findings and determination.

Analysis

National Oceanic and Atmospheric Administration (NOAA) Administrative Order (NAO) 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. On July 22, 2005, NOAA published a Policy Directive with guidelines for the preparation of a Finding of No Significant Impact (FONSI). In addition, the CEQ regulations at 40 C.F.R. Section 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, the recent Policy Directive from NOAA, 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 (EFH) as defined under the Magnuson-Stevens Act and identified in FMPs?

Response: The proposed action would only increase takes of sea turtles during aerial surveys. The action does not involve any inwater activities. Therefore the Proposed Action is not expected to result in impacts to any physical habitat including EFH.

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 Proposed Action would not involve direct contact or handling of any species or inwater activities. Effects of the action are expected to be limited to the minimal, temporary disturbance of sea turtles during surveys. Animals would recover from any disturbance within minutes. No long term changes in habitat use or other behavioral changes are expected that could alter biodiversity or ecosystem function. No

other species or portions of the ecosystem would be impacted. Therefore, the action is not expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area.

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

Response: No, the Proposed Action is not reasonably expected to have a substantial adverse impact on public safety or health. The Proposed Action involves operating aerial surveys which are conducted by qualified personnel following safe practices and standard protocols in the same manner as authorized by the existing permit. Therefore, public health and safety is not likely to be affected.

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: The permit would authorize takes of endangered and threatened sea turtles resulting in no more than short-lived minimal impacts to individual animals as discussed in Response #2. No serious injury, mortality or reduced reproductive fitness would be expected, nor impacts at the population or species level. The Proposed Action would allow the applicant to conduct aerial surveys on sea turtles within areas affected by the Mississippi Canyon (MC) 252 oil spill. The research would provide managers with critical data necessary to assess injury to sea turtle populations from the MC 252 oil spill as part of the Natural Resource Damage Assessment. The BO prepared for the action concluded that no listed species, including the target sea turtles, would be jeopardized. The BO also concluded that no critical habitat would be adversely modified or destroyed by the Proposed Action. Further, the permit for the proposed action will continue to contain mitigation measures to prevent adverse effects to endangered or threatened species and non-target species.

Any harassment of marine mammals seen during surveys would be covered by a separate research permit held by the SEFSC. No other interactions with other species are expected, including harm, injury or mortality of non-target animals. Therefore, the proposed action is not expected to jeopardize the sustainability of any non-target species.

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

Response: No, the Proposed Action would not create any significant social or economic impacts interrelated with natural or physical environmental effects. The oil spill event itself is expected to lead to significant social and economic impacts on the human environment, but the Proposed Action to increase sea turtles takes for aerial surveys in areas affected by the oil spill is not expected to exacerbate the situation. Sea turtle research within the action area affected by the MC 252 oil spill would not have direct or indirect social and economic impacts. Thus, no social or economic effects are expected to be interrelated with effects to the natural or physical environment.

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

Response: No, the effects on the quality of the human environment are not likely to be highly controversial. The Proposed Action will provide vital information on the impacts of the oil spill on sea turtle populations that is essential to NOAA's restoration efforts and will ultimately benefit sea turtle populations that use the Gulf of Mexico. The proposed research methods are commonly used and NMFS is not aware of any controversy surrounding the modification request. The application was made available for public comment and no comments were received.

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, EFH, or ecologically critical areas?

Response: No, the Proposed Action is not reasonably expected to result in substantial impacts to unique areas, park land, prime farmlands, wetlands, wild and scenic rivers, EFH, or ecologically critical areas as none of these areas are part of the Proposed Action (no inwater or terrestrial activities). The oil spill event itself is expected to lead to significant impacts on the physical, biological, and human environment, but the Proposed Action to permit scientific research in areas affected by the oil spill is not expected to exacerbate the situation. Therefore, no additional impacts on these components of the environment are expected from the Proposed Action.

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

Response: No, the effects on the human environment are not likely to be highly uncertain or involve unique or unknown risks. The proposed research activities are not new and are well-established protocols within the research community. Researchers have previously conducted the same type of research with no significant impacts to the environment.

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

Response: No, the Proposed Action is not related to other actions with individually insignificant but cumulatively significant impacts. The Proposed Action is to permit an increase in take for research on sea turtle assemblages during aerial surveys in the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico, including waters affected by the MC 252 Oil Spill. As described in previous responses, the Proposed Action would not have an impact on the physical environment. The oil spill event itself is expected to lead to cumulatively significant impacts on the physical, biological, and human environment, but the Proposed Action to allow sea turtle research in areas affected by the oil spill is not expected to exacerbate the situation.

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, the Proposed Action would not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, as none are designated in the action area. The Proposed Action is not expected to cause loss or destruction of significant scientific, cultural, or historical resources.

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

Response: No, the Proposed Action is not reasonably expected to result in the introduction or spread of non-indigenous species as the action is limited to the increase of take during aerial surveys.

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, the Proposed Action would not establish a precedent for future action with significant effects, and it does not represent a decision in principle about future consideration. Issuing a permit to a specific individual or organization for a given activity does not in any way guarantee or imply that NMFS will authorize other individuals or organizations to conduct the same or similar activity, nor does it involve irreversible or irretrievable commitment of resources.

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, the Proposed Action is not reasonably expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment. The Proposed Action is considered to be in concert with other laws imposed to protect the environment. The modified permit would not relieve the Permit Holder of the responsibility to obtain any other permits, or comply with any other Federal, State, local or international laws or regulations necessary to carry out the action.

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?

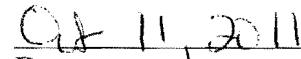
Response: No, the Proposed Action is not reasonably expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species. The action is not expected to result in cumulative adverse effects to any species. The Proposed Action is expected to have no more than minimal, short-term effects on the individual target sea turtles. See Response #4 for more detail on effects to target and non-target species. No cumulative adverse effects that could have a substantial effect on any species would be expected.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting EA prepared for the Emergency Action on Issuance of a Modification to Scientific Research Permit No. 1551-02 for Research on Protected Sea Turtles, it is hereby determined that this action will not significantly impact the quality of the human environment as described above and in the supporting EA. 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 Environmental Impact Statement for this action is not necessary.



James H. Lecky
Director, Office of Protected Resources


Date

