



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

SEP 10 2013

Dr. Louis B. Daniel III, Director
State of North Carolina
Department of Environment and Natural Resources
Division of Marine Fisheries
3441 Arendell Street
Morehead City, North Carolina 28557-0769

Dear Dr. Daniel:

Enclosed is Permit No. 16230, issued under the authority of Section 10 of the Endangered Species Act of 1973. This permit authorizes the take of listed sea turtles incidental to large and small mesh gillnet fishing in specified inshore estuarine areas.

Please review Permit 16230 to ensure that you understand what is authorized and that you will comply with the Permit conditions. The original permit and a file copy of the signature page are enclosed. Please sign and date both, and return the signature page marked "FILE COPY" to our office. In the future, should you need a change in this authorization, please submit a modification request.

Your attention is particularly directed to Section III., which specifies the authorized levels of incidental take. NCDMF shall inform my staff promptly if the authorized take levels are being approached. Additionally, Section IV. B. describes the conditions to monitor, minimize, and mitigate impacts to sea turtles in NC inshore gillnet fisheries. This permit expires on August 31, 2023. However, please note that we will annually review the permit and determine whether it needs to be suspended or amended. Yearly evaluation of this permit by the National Marine Fisheries Service (NMFS) will include re-analyses of all data and a re-assessment of the take levels. The fee for this permit is waived.

Please note that Permit #16230 is not valid until our office receives the signed copy. You may submit the copy as a .pdf by email. If you have any questions concerning the permit, please contact Kristy Long at 301-427-8402.

Sincerely,

PERREY GAYARDO

for Donna S. Wieting
Director, Office of Protected Resources
National Marine Fisheries Service



Permit No.: 16230

Expiration Date: August 31, 2023

The National Marine Fisheries Service (NMFS) issues this permit to the North Carolina Division of Marine Fisheries to incidentally take five species of threatened and endangered sea turtles in large mesh (≥ 4.0 inch stretched mesh) gillnet and small mesh (< 4.0 inch stretched mesh) gillnet fisheries prosecuted in North Carolina inshore waters.

PERMIT TO INCIDENTALLY TAKE ENDANGERED/THREATENED SPECIES

I. AUTHORIZATION

The North Carolina Division of Marine Fisheries (NCDMF) is hereby authorized to incidentally take the endangered and threatened sea turtles specified below while prosecuting large and small mesh gillnet fisheries from the date of issuance to August 31, 2023 in the manner specified in the Permit Holder's September 6, 2012 application (as updated January 18, 2013) and supporting documents, subject to the provisions of Section 10 of the Endangered Species Act (ESA) (16 U.S.C. §§ 1531-1543), the NMFS regulations governing listed species permits (50 CFR Parts 222 and 223), and the conditions hereinafter set forth.

II. ABSTRACT

In fall of 1999, high levels of sea turtle strandings were determined to be the likely result of incidental capture in the large mesh gillnets used in the fishery for southern flounder in Pamlico Sound, NC. Since incidental capture of listed sea turtles was unauthorized, NMFS implemented an emergency 30-day rule closing the fishery towards the end of the season (64 FR 70196, December 16, 1999). NMFS restricted fishing with gillnets greater than 4 ¼ inch stretched mesh in Pamlico Sound from September 28 through December 15, 2001 (66 FR 50350, October 3, 2001), and then permanently on an annual basis from September 1 through December 15 (67 FR 56931, September 6, 2002).

Since 2000, NMFS has issued four ESA section 10(a)(1)(B) Incidental Take Permits to NCDMF to allow the shallow water fishery to operate in the closed area while managing sea turtle interactions in certain components of the commercial fall gill net fisheries for flounder in the southeastern portion of Pamlico Sound. The four previous permits include ITP #1259 (65 FR 65840, November 2, 2000), ITP #1348 (66 FR 51023, October 5, 2001), ITP #1398 (67 FR 67150, November 4, 2002), and ITP #1528 (70 FR 52984, September 6, 2005). The goal of the previous four conservation plans for these permits was for NCDMF to monitor sea turtle interactions in the fall large mesh gillnet fishery in the Pamlico Sound Gillnet Restricted Area (PSGNRA) and to implement management measures to reduce sea turtle mortality by 50 percent from September 15-December 15, compared to the levels seen in the 1999 strandings. Corresponding limits were set on the levels of observed takes of sea turtles – both live and lethal takes – and documented strandings.

On September 6, 2012 (and updated January 18, 2013), NCDMF submitted an application to NMFS for a permit to incidentally take ESA-listed sea turtles associated with large and small mesh gillnet fisheries operating in inshore waters. This application includes endangered Kemp's ridley, leatherback, and hawksbill sea turtles and threatened green and loggerhead sea turtles. On October 31, 2012, NMFS published a notice of receipt of NCDMF's application (File No. 16230) and a request for public comment in the *Federal Register* (77 FR 65864). The 30-day public comment period ended on November 30, 2012.

In the current application (File No. 16230) and conservation plan, NCDMF expanded both the area and timing of the requested incidental takes of sea turtles to include gillnet fishing in all inshore state waters year round. NCDMF requested a combination of estimated and observed take levels depending on available data for each species and area. Where sufficient data exist, estimated annual take levels were requested for green and Kemp's ridley turtles in certain areas; where insufficient data exist to model an estimated annual take level, observed take levels were requested.

The conservation plan prepared by NCDMF describes measures designed to monitor, minimize, and mitigate the incidental take of ESA-listed sea turtles. The conservation plan includes managing inshore gill net fisheries by dividing estuarine waters into 6 management units (i.e., A, B, C, D1, D2, E). Each of the management units would be monitored seasonally and by fishery. This permit applies only to the areas defined as follows:

Management Unit A encompasses all estuarine waters north of 35° 46.30'N to the North Carolina/Virginia state line. This includes all of Albemarle, Currituck, Croatan, and Roanoke sounds as well as the contributing river systems in this area. Most of this area is currently defined as the Albemarle Sound Management Area (ASMA).

Management Unit B encompasses all estuarine waters south of 35° 46.30'N, east of 76° 30.00'W, and north of 34° 48.27'N. This Management Unit includes all of Pamlico Sound and the Northern portion of Core Sound.

1. Shallow Water Gillnet Restricted Area (SGNRA) 1

The area from Wainwright Island to Ocracoke Inlet bound by the following points: Beginning at a point on Core Banks at 34° 58.7963'N - 76° 10.0013'W, running northwesterly to Marker # 2CS at the mouth of Wainwright Channel at 35° 00.2780'N - 76° 12.1682'W, then running northeasterly to Marker "HL" at 35° 01.5665'N - 76° 11.4277'W, then running northeasterly to Marker #1 at 35° 09.7058'N - 76° 04.7528'W, then running southeasterly to a point at Beacon Island at 35° 05.9352'N - 76° 02.7408'W, then running south to a point on the northeast corner of Portsmouth Island at 35° 03.7014'N - 76° 02.2595'W, then running southwesterly along the shore of Core Banks to the point of beginning.

2. SGNRA 2

The area from Ocracoke Inlet to Hatteras Inlet bound by the following points: Beginning at a point near Marker #7 at the mouth of Silver Lake at 35° 06.9091'N - 75° 59.3882'W, running north to Marker # 11 near Big Foot Slough Entrance at 35° 08.7890'N - 76° 00.3606'W, then running northeasterly to a point at 35° 13.4489'N - 75° 47.5531'W, then running south to a point northwest of the Ocracoke/Hatteras Ferry terminal on the Ocracoke side at 35° 11.5985'N - 75° 47.0768'W, then southwesterly along the shore to a point of beginning.

3. SGNRA 3

The area from Hatteras to Avon Channel bound by the following points: The area from Hatteras to Avon Channel bound by the following points: Beginning at a point near Marker "HR" at 35° 13.3152'N - 75° 41.6694'W, running northwest near Marker "42 RC" at Hatteras Channel at 35° 16.7617'N - 75° 44.2341'W, then running easterly to a point off Marker #2 at Cape Channel at 35°

19.0380'N – 75° 36.2993'W, then running northeasterly near Marker #1 at the Avon Channel Entrance at 35° 22.8212'N – 75° 33.5984'W, then running southeasterly near Marker #6 on Avon Channel at 35° 20.8224'N - 75° 31.5708'W, then running easterly near Marker #8 at 35° 20.9412'N – 75° 30.9058'W, then running to a point on shore at 35° 20.9562'N - 75° 30.8472'W, then following the shoreline in a southerly and westerly direction to the point of beginning.

4. SGNRA 4

The area from Avon Channel to Rodanthe bound by the following points: Beginning at a point near Marker #1 at the Avon Channel Entrance at 35° 22.8212'N - 75° 33.5984'W, then running northerly to a Point on Gull Island at 35° 28.4495'N - 75° 31.3247'W, then running north near Marker "ICC" at 35° 35.9891'N – 75° 31.2419'W, then running northwesterly to a point at 35° 41.0000'N – 75° 33.8397'N – 75° 29.3271'W, then following the shoreline in a southerly direction to a point on shore near Avon Harbor at 35° 20.9562'N - 75° 30.8472'W, then running westerly near Marker #8 at 35° 20.9412'N - 75° 30.9058'W, then running westerly near Marker #6 on Avon Channel at 35° 20.8224'N - 75° 31.5708'W, then running northwesterly to the point of beginning.

5. Ocracoke Corridor (OC)

The area in Ocracoke Inlet bound by the following points: Beginning at a point at 35° 07.9390'N - 76° 03.8080'W, then running northeasterly to Marker #9 at Nine Foot Shoal Entrance at 35° 08.4411'N - 76° 02.6848'W, then running northeasterly to Marker "14 BF" at 35° 09.3627'N - 76° 00.6259'W, then running southeast to Marker #7 at the mouth of Silver Lake at 35° 06.9091'N - 75° 59.3882'W, then following the shoreline southwesterly to a point at the north side of Ocracoke Inlet at 35° 04.4200'N - 75° 59.9245'W, then crossing the inlet to a point on Portsmouth Island at 35° 03.7014'N - 76° 02.2595'W, then in a northerly direction to a point on Beacon Island at 35° 05.9352'N - 76° 02.7408'W, then running in a northwesterly direction to the point of beginning.

6. Hatteras Corridor (HC)

The area in Hatteras Inlet bound by the following points: Beginning at a point at 35° 13.4489'N - 75° 47.5531'W, running east to the site of an old platform at 35° 14.0100'N - 75° 45.8097'W, then running northeast to Marker "42 RC" at the mouth of Hatteras Channel at 35° 16.7617'N - 75° 44.2341'W, then following the channel to Marker "HR" at 35° 13.3152'N - 75° 41.6694'W, then following the shoreline to a point on the north side of Hatteras Inlet at 35° 11.3408'N - 75° 44.9907'W, then crossing the inlet to the south side to a point on Ocracoke Island at 35° 11.0793'N - 75° 45.9645'W, then following the shoreline northwest to a point northwest of the Ocracoke/Hatteras ferry terminal at 35° 11.5985'N - 75° 47.0768'W, then running in a northerly direction to the point of beginning.

7. Oregon Inlet Corridor (OIC)

The area in Oregon Inlet bound by the following points: Beginning at a point at Marker #12 at Old House Channel at 35° 45.0883'N - 75° 35.9600'W, then following the channel in a northeasterly direction to Marker #53 at 35° 47.2157'N - 75° 34.4264'W, then running easterly to Marker #13 near Oregon Inlet Fishing Center harbor entrance at 35° 47.7076'N - 75° 32.9762'W, then running southerly to a point on the south side of Oregon Inlet at 35° 46.0500'N - 75° 31.6166'W, then running in a southerly direction along the shoreline to a point at 35° 41.0000'N - 75° 29.3271'W,

then running west to a point at 35° 41.0000'N - 75° 33.8397'W, then in a northerly direction to the point of beginning.

8. Mainland Gillnet Restricted Area (MGNRA)

The area on the mainland side of Pamlico Sound, from the shoreline of Hyde and Pamlico Counties out to 200 yards between 76° 30'W and 75° 42'W.

Management Unit C includes the Pamlico, Pungo, and Neuse river drainages west of 76° 30.00'W.

Management Unit D1 encompasses all estuarine waters south of 34° 48.27'N and east of a line running from 34° 40.70'N – 76° 22.50'W to 34° 42.48'N – 76° 36.70'W. Management Unit D-1 includes Southern Core Sound, Back Sound, and North River.

Management Unit D2 encompasses all estuarine waters west of a line running from 34° 40.70'N – 76° 22.50'W to 34° 42.48'N – 76° 36.70'W to the Highway 58 bridge. Management Unit D-2 includes Newport River and Bogue Sound.

Management Unit E encompasses all estuarine waters south and west of the Highway 58 bridge to the North Carolina/South Carolina state line. This includes the Atlantic Intracoastal Waterway (ICW) and adjacent sounds and the New, Cape Fear, Lockwood Folly, White Oak, and Shallotte rivers.

III. INCIDENTAL TAKE AUTHORIZATION

Listed Species Affected (Covered Species):

Endangered

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

Threatened

Loggerhead turtle	<i>Caretta caretta</i>
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* *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.*

Authorized levels of annual incidental take are specified in the tables below. The amount of incidental take is expressed as either estimated or observed takes depending on the amount of data available for modeling predicted takes. Because reaching the estimated or observed level for any category of take for any species would end the incidental take authorization for all species, it is highly unlikely that all five species would be impacted at these full levels. Take must be incidental to otherwise lawful activities associated with the large and small mesh gillnet fisheries, and as conditioned herein. The permit covers incidental take from the date of issuance through August 31, 2023.

Table 1. Authorized annual *estimated* takes in large mesh (≥ 4 inch stretched mesh) gillnets under Permit No. 16230

Species	Area								Total Estimated Take	
	B		D1		D2		E		live	dead
	Estimated		Estimated		Estimated		Estimated			
	live	dead	live	dead	live	dead	live	dead		
Green	225	112	9	5	n/a*	n/a*	96	48	330	165
Kemp's ridley	53	26	15	7	6	3	24	13	98	49
Total Estimated Take	278	138	24	12	6	3	120	61	428	214

* Insufficient observer data exist to model an estimated annual take level; therefore, for Management Unit D2, an annual observed take number has been identified for green turtles, and is found in Table 2.

Table 2. Authorized annual *observed* (not estimated) takes in large mesh (≥ 4 inch stretched mesh) gillnets under Permit No. 16230

Species	Area				Total Observed Take
	B	D1	D2	E	
	Observed (live/dead)	Observed (live/dead)	Observed (live/dead)	Observed (live/dead)	
Green	n/a**	n/a**	6	n/a**	6
Kemp's ridley	n/a**	n/a**	n/a**	n/a**	n/a**
Hawksbill	1	1	1	1	4
Leatherback	1	1	1	1	4
Loggerhead	3	3	3	3	12
Total Observed Take	5	5	11	5	26

** Sufficient observer data exist to model an estimated annual take level for Kemp's ridley sea turtles in Management Units B, D1, D2 and E. See Table 1 for the authorized annual estimated take level.

Table 3. Authorized annual *observed* (not estimated) takes in small mesh (<4 inch stretched mesh) gillnets under Permit No. 16230

Species	Area				Total Observed Take
	B	D1	D2	E	
	Observed (live/dead)	Observed (live/dead)	Observed (live/dead)	Observed (live/dead)	
Green	3	3	3	3	12
Hawksbill	1	1	1	1	4
Kemp's ridley	3	3	3	3	12
Leatherback	1	1	1	1	4
Loggerhead	3	3	3	3	12
Total Observed Take	11	11	11	11	44

Table 4. Authorized annual *observed* (not estimated) takes in large mesh (≥ 4 inch stretched mesh) and small mesh (<4 inch stretched mesh) gillnets combined under Permit No. 16230

Species	Area		Total Observed Take
	A	C	
	Observed (live/dead)	Observed (live/dead)	
Green, Hawksbill, Kemp's ridley, Leatherback, Loggerhead	4 turtles of any species	4 turtles of any species	8
Total Observed Take	4	4	8

Table 5. Total annual authorized take (estimated and observed) by species and condition under Permit No. 16230

Species	Observed	Estimated	Estimated
	live/dead	live	dead
Green	18	330	165
Hawksbill	8	n/a*	n/a*
Kemp's ridley	12	98	49
Leatherback	8	n/a*	n/a*
Loggerhead	24	n/a*	n/a*
Any Species	8	n/a*	n/a*
Total Annual Take	78	428	214

* Insufficient observer data exist to model an estimated annual take level; therefore, takes are expressed as observed.

IV. CONDITIONS OF PERMIT

The incidental take of ESA-listed sea turtles is authorized as described in the application and subject to the provisions of the conservation plan and the conditions specified in this permit.

A. Duration of Permit

This permit covers incidental take of sea turtles in NC inshore gillnet fisheries from the date of issuance through August 31, 2023.

B. Conditions to Monitor, Minimize, and Mitigate Impacts to Listed Species

1. *Management Measures to Minimize Take.*

- 1) Restricted soak times for large mesh gillnets from one hour before sunset on Monday through Thursday and one hour after sunrise from Tuesday through Friday (i.e., fishing is prohibited from one hour after sunrise on Friday through one hour before sunset on Monday);
- 2) Restrictions on the maximum net length per large mesh fishing operation (i.e., 2,000 yards (1.83 km, 6,000 ft.) per operation except south of the North Carolina Highway 58 bridge and Management Area D2 where 1,000 yards (0.91 km, 3,000 ft.) is maximum;
- 3) Restrictions on large mesh net-shot lengths to 100 yards (91.44 m, 300 ft.) with a 25 yard (22.86 m, 75 ft.) separation between each net-shot;
- 4) Requirement for large mesh nets to be low profile (e.g., maximum of 15 meshes in depth, tie-downs prohibited, floats or corks prohibited along float lines north of the North Carolina Highway 58 bridge);
- 5) Closure of Management Area D1 to unattended large mesh gillnets from May 8 – October 14 annually;
- 6) Prohibition on large mesh gillnets in the deep water portions of the PSGNRA and Oregon, Hatteras, and Ocracoke inlets from September 1 – December 15; and
- 7) Adaptive fishery management measures and restrictions through state proclamation authority (e.g., gear and/or area restrictions, attendance requirements, increased observer coverage and/or enforcement).
- 8) Continuation of North Carolina's regulations for small mesh gillnet attendance requirements, effective on the date this permit was issued.

2. *Enforcement.* Adequate enforcement measures must be employed to ensure compliance by fishermen with all conditions of the Permit. Enforcement presence must be conducted on a variable schedule to prevent anticipation of enforcement presence at any given time.

3. *Monitoring Requirements.* NCDMF will maintain a monitoring program that consists of a combination of onboard and alternate platform observers, trip ticket program, and marine patrol officer activities (when needed). NCDMF will monitor six primary management units in inshore waters as described in the conservation plan.

- a. Large mesh gillnets – NCDMF will monitor at least 7% (with a goal of 10%) of large mesh (≥ 4.0 ISM) gillnet trips in each area during each of 3 seasons (i.e., spring, summer, and fall) as defined in the conservation plan.
- b. Small mesh gillnets – NCDMF will monitor at least 1% (with a goal of 2%) of small mesh (< 4.0 ISM) gillnet trips in each area during each of 3 seasons (i.e., spring, summer, fall) as defined in the conservation plan.

NCDMF will use data collected through the Observer Program using the methodologies outlined in the conservation plan to conduct annual analyses to better understand bycatch estimates for Kemp's ridley and green turtles. Weekly and seasonal estimated sea turtle takes will be calculated by NCDMF to ensure authorized estimated and/or observed take levels are not being approached. Separate estimates must be made for live and dead bycaught turtles. For purposes of these estimates, any observed, captured turtles that are released alive, uninjured, and in a vigorous condition will be used to produce the "live" estimates. Observed, captured turtles in any other condition will be used for the "dead" estimates. The cumulative total of the individual weekly estimates must also be calculated by NCDMF to determine whether the maximum authorized take levels in Section III are being approached. NCDMF shall inform NMFS promptly if the authorized take levels are being approached.

NCDMF will monitor data collected and identify, in a timely manner, whether unusually high sea turtle bycatch occurred within a management unit or subunit, such that NCDMF determines that closure and evaluation is necessary to (1) avoid approaching a take limit, or (2) provide adequate protection for sea turtles by implementing additional mitigation measures, or (3) to allow sea turtles to complete a seasonal migration and minimize interactions. NCDMF will confer with the NMFS on the identification of hotspots.

4. *Reporting Requirements.*

- a. Take Reports: NCDMF will report all incidental sea turtle takes to NMFS Office of Protected Resources (OPR) via email within 24 hours of their occurrence in any season of the year (spring, summer, fall and winter), whether documented by an observer or reported by a fisherman. Reports of incidental take should include the date of the take, the condition of the turtle, the species (if known), photographs, and any other pertinent details of the circumstances of the taking (e.g., location, gear description, etc.). NCDMF will also provide copies of all take reports to the NC Sea Turtle Stranding and Salvage Network (STSSN) within 24 hours of the take.
- b. Weekly Progress Reports: For those weeks in which sea turtle interactions are documented, a weekly report must be submitted to the NMFS OPR by Friday of the following week. The weekly reports must include the weekly take estimates and cumulative totals, including: observed takes with species, location, condition, and photos; and the total number of observed trips in that area.
- c. Seasonal Progress Reports: Progress reports must be submitted to the NMFS OPR within 30 days after the end of the spring, summer, and fall seasons (i.e., June 30, September 30, and December 31). The reports must include:
 - i. A summary of the weekly reporting information previously submitted;
 - ii. Descriptions of any additional management measures taken by NCDMF;
 - iii. One or more maps or graphical displays illustrating the geographic distribution of all observed large and small mesh gillnet trips and the locations of all observed incidental takes of sea turtles;
 - iv. The number of law enforcement contacts made with gillnet vessels and the nature of these contacts;
 - v. Any violations detected by NCDMF of the proclamations implementing the requirements of this ITP, and the status of all resulting enforcement actions; and
 - vi. A description of any adaptive management actions taken.

- d. Annual Reports: NCDMF will prepare annual written reports for each year during which the Plan is in effect. A year is defined as beginning September 1 and ending the following August 31 (e.g., September 1, 2013 through August 31, 2014). NCDMF will submit annual reports for September 1 through August 31 to NMFS by the following January 31 (i.e., 5 months after the year ends). A summary of the key contents of each annual report is provided below:
1. Actual and estimated incidental takes (including mortality) and the level of uncertainty of the estimates (e.g., confidence intervals) of Covered Species by management units as described in the conservation plan;
 2. Size composition, disposition (alive/dead), location, and dates of incidental take of Covered Species recorded during monitoring program as described in the conservation plan and conservation plan Appendix;
 3. One or more maps or graphical representations illustrating the geographic distribution of all observed large and small mesh gillnet hauls and the locations of all observed incidental sea turtle takes; and
 4. A description of the mitigation activities, adaptive management actions, and enforcement activities conducted.
5. *Adaptive Management*. NCDMF shall use a variety of adaptive fishery management measures and restrictions through their state proclamation authority to reduce sea turtle mortality and prohibit fishing in management units where incidental take thresholds are approaching authorized take levels. NCDMF will use proclamation authority to implement management measures necessary to reduce sea turtle takes. Proclamation authority allows NCDMF to implement timely responses (i.e., within 48 hours) that may provide increased protection of sea turtles. For example, appropriate restrictions may include gear or area restrictions, attendance requirements, modifications in observer coverage, increased enforcement, or a combination of these and other restrictions. The need for additional management measures or better direction of resources will be determined by NCDMF in consultation with NMFS OPR. NCDMF and NMFS consultations must include analyses of relevant data, including but not limited to at-sea monitoring, NC Trip Ticket Program, fish house checks, enforcement, and strandings. Consultations will be among staff from NCDMF and NMFS OPR. If there is a disagreement about any changes to management not specified within the permit, NMFS will convene, at NCDMF's request, a consultation with the Assistant Administrator for Fisheries for a final decision on the disagreement.

Potential adaptive management restrictions may include gear or area restrictions, attendance requirements, modifications in observer coverage, increased enforcement, or a combination of these and other restrictions. The NCDMF will consult regularly with the NMFS OPR to ensure that monitoring and management programs maintain the flexibility for the NCDMF to monitor, anticipate, respond, and implement needed action. As with all measures in the Permit, the adaptive management measures will be evaluated on an annual basis to determine which, if any, management changes were effective.

Another key component of an adaptive monitoring program is the identification of areas of high potential for bycatch of protected species in gillnet fisheries through observed interactions and on the water sightings of sea turtles by the NCDMF observers, biological staff, the NC STSSN, NC Marine Patrol, reports from commercial and recreational fishermen, and the general public. These areas will be referred to as “hotspots” and will provide managers the opportunity to address bycatch concerns through timely implementation of conservation measures such as increased observer and Marine Patrol coverage, additional gear restrictions, and temporary and/or seasonal closures. A “hotspot” will be defined as any area where sea turtle observations and/or sightings are above the previous two-year average for the season and Management Unit and has the potential for increased interactions.

6. *Mitigation Activities.* NCDMF must ensure (i.e., issue a proclamation) that all commercial and recreational fishermen report all incidental captures of sea turtle to NCDMF and require that fishermen follow the requirements listed below for the safe handling, resuscitation, and disposition of any incidentally captured turtles. Human safety is paramount and will supersede these requirements as necessary.

Sea Turtle Handling and Resuscitation Requirements

- a) Fishermen must bring captured turtles aboard immediately upon detecting them in their net and remove them from the net with all due care to avoid further injury to the turtle.
- b) Resuscitation must be attempted on sea turtles that are inactive or comatose by placing the turtle in its normal position on its breastplate (plastron) and elevating its hindquarters several inches for a period of 4 to 24 hours. The amount of the elevation depends on the size of the turtle; greater elevations are needed for larger turtles. Sea turtles being resuscitated must be kept moist and protected from excessive heat and cold.
- c) Sea turtles that are actively moving or begin actively moving following resuscitation must be held aboard the vessel in an open container (e.g. a fish box) that allows the turtle to rest normally on its breastplate, while restricting its movement and preventing the possibility of injury from any fishing operations. Turtles that are too large to fit inside a holding container must be otherwise confined to an area of the vessel that is free of sharp objects or harmful materials and where chance of injury from fishing operations is minimal.
- d) For all comatose or revived turtles, the NC STSSN must be contacted immediately so the animal can be transferred to rehabilitation for evaluation.

Incidentally Taken Sea Turtle Specimens

- a) Release of active and uninjured sea turtles: Live uninjured turtles should be released immediately following capture. The release location should be far enough from the nets to avoid immediate recapture but within the vicinity of where they were captured. Turtles must be released over the stern or side of the boat with the engine out of gear in an area where they are unlikely to be recaptured by other nets or injured by vessels.
- b) For sea turtles that are injured, lethargic, or dead, fishermen must immediately contact the NCDMF Marine Patrol and transfer the turtle to an NCDMF patrol vessel. If no NCDMF patrol vessel is in the vicinity, fishermen must transport the turtle immediately to the nearest U.S. Coast Guard Station and contact the NC STSSN immediately to arrange for transfer of the turtle to a rehabilitation facility.

Tagging of Incidentally Taken Sea Turtle Specimens

Observers must tag all live, active turtles prior to release with two flipper tags and one passive integrated transponder (PIT) tag, provided the turtle meets the minimum size criteria for tagging. Tagging procedures must be coordinated with and tag data must be submitted to the Cooperative Marine Turtle Tagging Program of the University of Florida. NCDMF must coordinate with NMFS on observer training programs. NMFS will provide, based on available staff, training for observers on handling and tagging sea turtles.

Stranding Monitoring

Independent from this Permit, the NC STSSN, operated by the North Carolina Wildlife Resources Commission (NCWRC), monitors the strandings of sea turtles in inshore areas. NCDMF must provide copies of all take reports to the NC STSSN within 24 hours of the take, to facilitate information exchange necessary to compare stranding and incidental take locations for analysis, such as identifying “hotspots”.

7. *U.S. Fish and Wildlife Service Guidelines to Reduce the Impact to Manatees if Encountered by Fisherman.* NCDMF must issue a proclamation specifying the guidelines fishermen must follow in the event that a manatee is encountered.
 - a. The Permit Holder will inform all fishermen associated with the fisheries that manatees may be present in the area, and the need to avoid any harm to these endangered mammals. The applicant will ensure that all fishermen know the general appearance of the species and their habit of moving about completely or partially submerged in shallow water. All fishermen will be informed that they are responsible for observing water-related activities for the presence of manatees.
 - b. The Permit Holder will advise all fishermen that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the ESA and the Marine Mammal Protection Act.
 - c. If a manatee is seen within 300 ft of the active vessel movement, all appropriate precautions shall be implemented to ensure protection of the manatee. The precautions shall include the operation of all moving vessels no closer than 50 ft of a manatee. Operation of any vessels closer than 50 ft to a manatee shall necessitate immediately placing any motors in neutral or shutting them off. Activities will not resume until the manatee has departed the fishing area on its own volition. Manatees should not be herded away or harassed into leaving.
 - d. Fishermen will monitor and tend nets for manatees at the same time they do so for sea turtles. For help with an entangled, injured, or stranded manatee, fishermen should contact:

John Hammond
U.S. Fish and Wildlife Service, Raleigh Field Office
Raleigh, NC
919-856-4520 ext.28

In the event an entangled manatee is encountered, fishermen should take immediate

actions in a manner which best minimizes stress or injury to the animal but is sufficient to free it entirely. The above person should then be contacted as soon as possible.

- e. Any boat collision or fishing gear interaction with and/or injury to a manatee will be reported immediately. The report must be made to the U.S. Fish and Wildlife Service (USFWS) and NCWRC, and fishing should be postponed until cause of injury or mortality can be determined and a revised fishing and or monitoring plan is produced and approved. The addresses for USFWS and NCWRC are:

U.S. Fish and Wildlife Service
P.O. Box 33726
Raleigh, NC 27636-3726
919-856-4520 extension 16

North Carolina Wildlife Resources
183 Paul Drive
Trenton, NC 28585
252-448-1546

- f. A sign should be posted in all fish houses associated with the fisheries where it is clearly visible and will be distributed, as appropriate, to vessel operators to post in vessels. The sign should state:

CAUTION: The endangered manatee may occur in these waters during the warmer months, primarily from June through October. Idle speed is required if operating this vessel in shallow water during these months. All motors must be shut down or placed in neutral if a manatee comes within 50 ft of the fishing vessel. A collision with and/or injury to a manatee will be reported immediately to the U.S. Fish and Wildlife Service and the North Carolina Wildlife Resources Commission.

- g. All vessels associated with the fishing activities will operate at “no wake/idle” speeds at all times while in water where the draft of the vessel provides less than four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

- 8. *Additional Restrictions and Closure of the Fishery.* If estimated or observed sea turtle interactions or mortalities exceed thresholds specified in Section III. AUTHORIZED INCIDENTAL TAKES, NCDMF must immediately close the appropriate area to fishing with gillnets. NCDMF must then analyze the available observer data and consult with NMFS to determine the appropriate next steps.

C. General Permit Conditions

- 1. NMFS may suspend or revoke the permit that it issued for cause in accordance with applicable laws and regulations (See 5 U.S.C. § 558; 50 C.F.R. § 222.306; 15 C.F.R. § 904.). Such suspension or revocation may apply to an entire permit, or only to specified Covered Species, Permit Areas, or covered activities.
- 2. The Permit Holder may not transfer or assign this permit to any other person(s), as person is defined in Section 3(12) of the ESA. This permit is not in force or effective if transferred or assigned to any other person.

3. Upon request by the Director of OPR, the Permit Holder must permit any employee(s) of NMFS, or any other person(s) duly designated by the Director, to inspect the Permit Holder's records and facilities if such records and facilities pertain to activities for which a take of ESA-listed species is authorized by this permit, relate to ESA-listed species covered by this permit, or pertain to the Director's responsibilities under the ESA.
4. The provisions of this permit may be amended upon reasonable notice by the Director of OPR.
5. In the event any ESA-listed species not authorized by this or another incidental take permit is killed, injured, or collected during the course of activities in the restricted area, the Permit Holder must notify the NMFS OPR Chief of the Marine Mammal and Turtle Division as soon as possible, but not later than two days after the event. If the individual is killed, it must be retained for scientific analysis. The Permit Holder must then submit a written report to the Chief of the Endangered Species Division describing the circumstances of the unauthorized take. Pending review of these circumstances, NMFS may suspend or amend this permit.
6. The Permit Holder is responsible for the activities of any individual who is operating under the authority of this permit. Such activities include capturing, handling, releasing, transporting, maintaining, and caring for any animal authorized to be taken by this permit.
7. Under the terms of the ESA regulations, a violation of any of the terms and conditions of this permit will subject the Permit Holder, and/or any individual who is operating under the authority of this permit, to penalties as provided for in the ESA.
8. NMFS OPR will annually review this permit and determine whether it needs to be suspended or amended. Yearly evaluation of this permit by NMFS OPR will include re-analyses of all data and a re-assessment of the take levels.
9. 50 CFR Section 222.23(d)(8) provides for a reasonable fee to be charged to cover the costs of issuance of permits under the ESA. The fee for this permit has been waived.

Perry Gay Acord

SEP 10 2013

Date

For Director, Office of Protected Resources
National Marine Fisheries Service
NOAA

[Signature]

9/10/13

Date

Director, Division of Marine Fisheries
North Carolina Department of Environment
and Natural Resources