SUPPORTING STATEMENT
MARINE DEBRIS SURVEY IN THE COASTAL NORTH CAROLINA REGION
OMB CONTROL NO. 0648-xxxx

A. JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary.

The National Oceanic and Atmospheric Administration's (NOAA) National Ocean Service (NOS) Center for Coastal Fisheries and Habitat Research (CCFHR) has received one year of funding from the NOAA Marine Debris Program to assess perceptions of marine debris (including derelict fishing gear) occurrence and distribution, environmental impacts, potential causes, and suggestions for reduction. **This funding, allocated to contract employee time, will continue through August 2009. Due to this limitation, we respectfully request that this Information Collection Request be reviewed, and a notice of action issued, no later than 60 days from submission to OMB, so that we may sample as many of our anticipated respondent universe throughout the different fishing seasons prior to the funding conclusion.**

The statutory authorities supporting this research are the Marine Debris Research, Prevention, and Reduction Act of 2006 (33 U.S.C. §§ 1951 et seq.), the Marine Plastic Pollution Research and Control Act of 1987 (33 U.S.C. §§ 1901 et seq.), and the Coastal Zone Management Act of 1972 (16 U.S.C. §§ 1455).

NOS CCFHR will request information from fishers holding either a commercial fishing license or a license for recreational fishing with commercial fishing gear issued by the State of North Carolina who fish in Core Sound, Back Sound and The Straits (defined and referred to as the Core Sounds Area for our survey). Upon receipt, this information will help to determine the status of marine debris within Core and Back Sounds, North Carolina (NC).

Section 3 of the Marine Debris Research, Prevention, and Reduction Act of 2006 established within NOAA a Marine Debris Prevention and Removal Program to reduce and prevent the occurrence and adverse impacts of marine debris on the marine environment and navigation safety. Program components include:

"(1) MAPPING, IDENTIFICATION, IMPACT ASSESSMENT, REMOVAL, AND PREVENTION.—The Administrator shall, in consultation with relevant Federal agencies, undertake marine debris mapping, identification, impact assessment, prevention, and removal efforts, with a focus on marine debris posing a threat to living marine resources and navigation safety, including:

> (A) the establishment of a process, building on existing information sources maintained by Federal agencies such as the Environmental Protection Agency and the Coast Guard, for cataloguing and maintaining an inventory of marine debris and its impacts found in the navigable waters of the United States and the United States exclusive economic zone, including location, material, size, age, and origin, and impacts on habitat, living marine resources, human health, and navigation safety

(B) measures to identify the origin, location, and projected movement of marine debris within United States navigable waters, the United States exclusive economic zone, and the high seas, including the use of oceanographic, atmospheric, satellite, and remote sensing data and

(C) development and implementation of strategies, methods, priorities, and a plan for preventing and removing marine debris from United States navigable waters and within the United States Exclusive Economic Zone, including development of local or regional protocols for removal of derelict fishing gear and other marine debris.

(2) REDUCING AND PREVENTING LOSS OF GEAR.—The Administrator shall improve efforts to reduce adverse impacts of lost and discarded fishing gear on living marine resources and navigation safety, including:

(A) research and development of alternatives to gear posing threats to the marine environment, and methods for marking gear used in specific fisheries to enhance the tracking, recovery, and identification of lost and discarded gear and

(B) development of effective non-regulatory measures and incentives to cooperatively reduce the volume of lost and discarded fishing gear and to aid in its recovery.

(3) OUTREACH.—The Administrator shall undertake outreach and education of the public and other stakeholders, such as the fishing industry, fishing gear manufacturers, and other marine-dependent industries, and the plastic and waste management industries, on sources of marine debris, threats associated with marine debris and approaches to identify, determine sources of, assess, reduce, and prevent marine debris and its adverse impacts on the marine environment and navigational safety, including outreach and education activities through public-private initiatives. The Administrator shall coordinate outreach and education activities under this paragraph with any outreach programs conducted under section 2204 of the Marine Plastic Pollution Research and Control Act of 1987 (33 U.S.C. 1915)."

The **Marine Plastic Pollution Research and Control Act of 1987** prohibits overboard disposal of plastic trash from any vessel within the U.S. Exclusive Economic Zone (within 200 nautical miles of the shoreline) or overboard disposal of other garbage while navigating in U.S. waters or within three miles of shore. This act prescribes preventive measures and violations for enforcement of the Protocol of 1978 relating to the Convention for the Prevention of Pollution from Ships and specified related international conventions including the **International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) Annex V which** prohibits the disposal of plastics anywhere into the sea and severely restricts discharges of other garbage from ships into coastal waters and also obliges Governments to ensure the provision of facilities at ports and terminals for the reception of garbage.

Section 1915 of The **Marine Plastic Pollution Research and Control Act of 1987** established within NOAA the authority to commence and thereafter conduct a public outreach program to educate the public (including recreational boaters, fishers, and other users of the marine environment) regarding:

(A) the harmful effects of plastic pollution
(B) the need to reduce such pollution
(C) the need to recycle plastic materials and
(D) the need to reduce the quantity of plastic debris in the environment.

Authorized activities include: public outreach program which may include workshops with interested groups, public service announcements, distribution of leaflets and posters, any other means appropriate to educating the public. The objective of this survey is to determine appropriate background to design an effective public outreach strategy if appropriate.

Section 303 of the Coastal Zone Management Act of 1972 (16 U.S.C. § 1452) establishes that the national policy includes the following:

(1) preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations;

(2) encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and aesthetic values as well as the needs for compatible economic development, which programs should at least provide for:

(A) the protection of natural resources, including wetlands, floodplains, estuaries, beaches, dunes, barrier islands, coral reefs, and fish and wildlife and their habitat, within the coastal zone,

(B) assistance to support comprehensive planning, conservation, and management for living marine resources, and

(3) encourage the participation and cooperation of the public, state and local governments, and interstate and other regional agencies, as well as of the Federal agencies having programs affecting the coastal zone, in carrying out the purposes of this chapter.

Marine debris has ecological impacts to humans and the environment worldwide. The aim of this Marine Debris Survey in the Coastal North Carolina Region is to determine what those impacts are within a specified geographic area in the mid-Atlantic seaboard that is relatively un-influenced by oceanic debris patterns. The broad-scale objectives of the project, funded by the NOAA Marine Debris Program and undertaken by scientists at NOAA NOS CCFHR, is to: 1) determine the amount, type and impacts (ecological and human) of marine debris (including derelict fishing gear) in North Carolina salt marshes and surrounding water areas (specifically Core Sound, Back Sound, and The Straits), and 2) to determine strategies to reduce and prevent marine debris in these areas.

Results from this survey will specifically help determine the perspectives of commercial fishers – one of the primary users of the Core and Back Sound marine areas adjacent to Cape Lookout National Seashore and Rachel Carson National Estuarine Research Reserve – regarding marine debris and derelict fishing gear occurrence within the specified area, potential impacts to fishing and the marine environment, and suggestions for reducing the occurrence of derelict fishing gear

and/or marine debris within the specified area. Within a similar geographic area near Beaufort, NC (Core and Back Sounds, Taylor's Creek and Newport River), CCFHR scientists are conducting complementary ecological surveys on marine debris distribution and composition to address these questions from an environmental impact approach.

A state partner, NC Division of Marine Fisheries (NC DMF), collected information from a similar, but smaller universe of respondents in 2006 to determine the perceptions of fishers to fisheries management and challenges inherent in commercial fishing. NC DMF has no plans to repeat their survey within 3 years. While the DMF study will be useful to determine the potential universe of respondents for our survey, our survey will also include fishers holding Recreational Users of Commercial Gear License (RCGL) and fishers fishing in an adjacent marine area.

Another state partner (NC National Estuarine Research Reserve) is conducting a complementary social science survey to a different respondent universe. Their survey is targeted towards recreational users of the Reserve towards perceptions of marine debris occurrence, impacts, and suggestions for reduction within the Reserve. This survey was begun in July-August, 2008 to 33 respondents and may resume next summer during the high visitation season. Several questions tested in this survey will be used for our proposed survey.

2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.

Data will be collected through in-person, face-to-face, oral interviews at fish houses, supply stores, harbors, docks, public meetings, and on the water. The identical surveys may also be conducted over the phone if we have the required contact information and the respondent expresses a preference.

Questions 1-3 of the survey address the general fishing practices of the respondent by establishing the type of fishing license the respondent engages in, time on the water, and fishing effort. Questions 4 and 8 address descriptive information about the types of marine debris and derelict fishing gear, respectively, that have been observed by the respondent. Questions 5 and 10 address occurrence of marine debris and derelict fishing gear, respectively, to provide information on origins, causes, and potential opportunities for effective prevention. Questions 6 and 9 will give information on environmental impacts of marine debris and derelict fishing gear, respectively, and are correlated with Questions 7 and 11 which address perceived causation. Questions 12 and 15 address commercial and social impacts of marine debris and derelict fishing gear, respectively. Questions 13-19 address perceived impacts of marine debris and derelict fishing gear. Question 20 addresses perceived changes over time, and Questions 21-24 address suggestions for reducing or preventing derelict fishing gear and marine debris.

As explained in the preceding paragraphs, the information gathered has utility. NOAA's NOS National Centers for Coastal Ocean Science (NCCOS) CCFHR will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information. Please refer to our response to Question 10 of this Supporting Statement for more information on confidentiality

and privacy. The information collection is designed to yield data that meet all applicable information quality guidelines. Although the information collected is not expected to be disseminated directly to the public, results may be used in scientific, management, technical, or general informational publications. Should NOAA's NOS CCFHR decide to disseminate the information, it will be subject to the quality control measures and pre-dissemination review pursuant to Section 515 of Public Law 106-554.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.

The collection of information will be in-person, using oral surveys. The interviewers may use laptops to directly enter the answers being provided; however, this will not be a primary method because interviews may be conducted on small boats or in saltwater environments, a hazardous environment for computers.

4. Describe efforts to identify duplication.

CCFHR has made efforts to identify duplication with other collections by consulting with the NC Division of Marine Fisheries social scientists who are very knowledgeable about current and historical data collected using the sample areas of Core Sound, Back Sound, and The Straits, NC. Other efforts have been made to consult NOAA Marine Debris Program's current and historical projects.

5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.

Our survey population consists of individual fishers who are considered small businesses and recreational fishers using commercial gear (not considered small businesses). To minimize the burden to small businesses, the survey will be administered only once to each fisher and it is anticipated to take approximately twenty-five minutes of their time. Several sampling location sites will be at the locations of small businesses (i.e. fish houses, supply houses, harbors). We will make every effort with business owners and customers to minimize interference with business. Specific examples of this will include obtaining approval of respondents prior to sampling, obtaining approval of business owners or on-site managers prior to sampling, sampling social gatherings referred to locally as "hang-outs", and avoiding interference with business transactions.

6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.

This is a one-time collection. If this collection is not conducted, the human dimensions of marine debris impacts at a local scale within the specified area will remain unknown, and management agencies will not be advised of what the social impacts of marine debris to commercial fishers (who are the primary users) are within the defined area. Our complementary ecological studies that yield information on distribution and composition will not be supported by information on impacts to human users. At a national scale, lack of cumulative local-scale

information on the human dimensions of marine debris will reduce the efficacy of management directions.

7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

There are no such special circumstances.

8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

A Federal Register Notice published on June 27, 2008 (73 FR 36493) solicited public comments. No comments were received.

Efforts to consult with persons outside the agency to obtain their views on data availability, collection frequency, clarity of instructions, disclosure, reporting format, and on data elements to be recorded or disclosed include: a workshop discussion (2 days) and numerous emails and phone calls with the following social scientists who have contributed significantly in determining frequency of collection, clarity of instructions and recordkeeping, disclosure, reporting format, and on data elements to be recorded or disclosed. Scott Crosson, PhD, from NC DMF, has sampled some of the potential respondent universe for our intended survey for NC DMF-related questions in 2004 and 2007 and is aware of the availability of existing data for the geographic area. Study collaborators include: Chris Ellis, PhD, NOAA Coastal Services Center Human Dimensions Division, Ryan Kelty, PhD, Washington College Sociology Department, and Zoe Meletis, PhD from University of Northern British Columbia Department of Tourism and Outdoor Recreation.

9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.

No payments or gifts will be provided.

10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.

The survey cover page contains the following assurances: 1) “the survey is voluntary and anonymous”, 2) “the data collected will not be linked to personal information; it will be presented in aggregated data sets”, and 3) “all surveys will be kept in a secure, protected location by the principal investigator, and originals will be destroyed once analysis is complete”.

The only personally identifiable information requested is separate from the actual survey questions, and will be detached from the survey immediately after the survey is completed. This information request consists of 1) a signature of informed consent on the first page, 2) an option

for data return, should the respondents wish to be informed of results, and 3) an option to include contact information for other potential respondents.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

No sensitive questions will be asked.

12. Provide an estimate in hours of the burden of the collection of information.

At an estimated twenty-five minutes per survey, with an estimated 335 respondents, the total burden would be 140 hours. *To cover the possibility that our response rates are improved upon, we request an additional 20 hours (48 additional respondents and surveys), for a maximum of 383 respondents and surveys, and 160 hours.*

13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in Question 12 above).

There will be no recording/recordkeeping costs for the respondents.

14. Provide estimates of annualized cost to the Federal government.

There will be no costs beyond the normal labor costs for staff.

15. Explain the reasons for any program changes or adjustments.

This is a new program.

16. For collections whose results will be published, outline the plans for tabulation and publication.

Data will be collected from the time of approval of this request through August, 2009 under existing funding. Should we obtain additional funding, we would continue to collect data for a total of one calendar year to sample fishers utilizing various fishing seasons throughout the year.

Our methods for this study will combine both descriptive and inferential analysis. Since this study is the first of its kind with this population, several questions that will be asked are intended to provide a description of the fishers and their experiences with marine debris (MD) and derelict fishing gear (DFG) in their fishery. Examples of these types of questions include demographic data (age, gender, years fished), type of MD/DFG observed, frequency of observation of MD/DFG in different environmental locations, frequency of MD/DFG tangling in fishing gear, where MD/DFG is located across the fishery, comparison of MD/DFG to other types of environmental threats, and questions on prevention and remediation of damage caused by MD/DFG. We will report frequency distributions and, when appropriate means and variances, in order to characterize who the fishers are and what their perceptions are of MD/DFG in the

fishery in order to establish a baseline for "the status" of people and attitudes in this population on issues surrounding MD/DFG.

Inferential statistical analyses will be conducted to better understand the causes of MD/DFG and environmental impacts of MD/DFG. For these analyses we will construct OLS regression models that predict fishers' attitudes on causes and environmental impacts of MD/ DFG using questions focused on experience (e.g., years fishing, type of fishing done) and questions based on observation (e.g., type of MD/DFG observed in the fishery, frequency of observing MD/DFG, degree to which amount of MD/DFG is changing). Additionally, we will use correlational analysis to examine relationships between types of gear used by fishers and the types of MD/DFG they observe in the marsh, the water, and their nets.

We will also conduct qualitative analysis to examine open-ended responses to questions dealing with reducing and removing MD/DFG.

We will use various statistical software programs including Microsoft Excel, R, and SPSS for analyses of correlations, regressions, and predictive model construction.

Results from collected data will be analyzed in 2009 (into 2010, if additional funding can be obtained) and, depending on results, it is our goal by 2011 to write an article for publication. Potential journal publication venues include: Marine Pollution, Ocean and Coastal Management, Journal of Coastal Management, or others similar journals of the scientific and social science fields. Results of the collection will not be made available on the NOAA CCFHR home page because at this time, there is no venue by which this may be done. If this changes in 2009, we will make the information available on the CCFHR homepage.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.

N/A

18. Explain each exception to the certification statement identified in Item 19 of the OMB 83-I.

N/A