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To: Designated Federal Official, ORV Management Plan Regulation-Negotiation Committee

Subject: Written Public Comment of Michael A. Berry
Open Public Peer Review of Science Related to ORV Management Plan

As a follow-up to a public comment I made at the ORV Management Plan Regulation-Negotiation Committee on May 9, 2008 at Nags Head, NC, I submitted the following written comment and recommendation with regard to the importance of open public peer review of all science related to the final ORV management plan.

Good environmental management policy must always be based on sound science. All substantive and responsible environmental management and policy begins with a basic understanding of how the environment works. It is always necessary to have open review of all aspects of decisions that affect the public and regulation of the environment. Far too often there is a misuse and misrepresentation of science to achieve political objectives.

The mere personal opinions and even professional judgments of a scientist do not constitute a demonstration of the Hard Look Doctrine required in government decision-making. Science must be peer reviewed and scientists must be questioned. Science related statements for government regulation must be fully referenced, and clearly indicated as actual observations, hypothesis, speculation or personal judgment.

In all sciences, particularly wildlife science, there are many uncertainties, data gaps and limited observations. These limitations always need to disclosed, especially when the "fuzzy science" is being used to regulate public behavior.

The environmental organizations far too often claim expertise which the federal agencies accept at face value. Yet the public has seen no actual data, let alone trends based on data to support their claims.

As an example, if the public visits the Southern Environmental Law Center Website http://www.southernenvironment.org/cases/hatteras/index.htm, readers will find the following statement related to ORVs that they have given to the media, the general public, and federal agencies time and again over the past number of months:

"In addition to fishermen, daily beach goers are using their trucks and SUVs for convenient beach access. In their path are nests of shorebirds like the threatened piping

plover and loggerhead turtle whose existence on the Seashore is imperiled by hundreds of vehicles per day. As a result, these species are declining at a rapid pace."

When readers go to the "these species are declining" page intended to scientifically support the claim of species loss,

http://www.southernenvironment.org/cases/hatteras/bird_decline.htm,

they find table showing photographs of colorful birds and three columns of numbers that indicate what I can only describe as a "horrific" decline of birds. The table is designed to be disturbing. However, to me as a scientist the table is highly questionable and misleading. As any student of environmental science knows, species populations are constantly changing, populations grow, stabilize, and die in relation to location, population age and size, weather and climate shifts, storms, vegetation, other species, predators, food supply--to name but a few biotic and abiotic conditions affecting the life of an organism.

For such data and claims to be judged valid, they need to be explained and to pass the normal test of scientific review. The numbers shown on the table cited above are in large part the basis for current closures that are adversely affecting public access and the OBX economy. Give the potential beach access loss to the public resulting from this disturbing data, any organization who is publishing and using this type of information for environmental management decisions, owes it to the public to answer the following questions:

1. *Who is the specific author of this table bird population decline?*
2. *What is their area of expertise?*
3. *Show us the raw or original data used to create this table?*
4. *From what studies were the numbers in this table taken?*
5. *Were the studies on which the table based peer reviewed or published?*
6. *Who were the independent peer reviewers?*
7. *What protocol was used to collect the data?*
8. *Where and when were the data collected ?*
9. *What quality control system and statistical analysis process was used in data collection?*
10. *Show trends: What were the observed population counts for 1996, 1997, 1998,1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006*
11. *What were trends related to the interim management plan years? Do they not indicate an improvement in population growth?*
12. *Where is the loggerhead turtle and piping plover data?*

The recent peer review of the Vogelsong study is a good example of why peer review is essential in establishing public trust. After five years of repeated criticisms by a number of qualified reviewers, the Vogelsong study was this past year submitted for formal peer review by the Park Service as part of the negotiated rulemaking process to develop a long-term ORV management plan.

Five peer reviewers, all recognized experts, were asked the fundamental question: "How suitable is the science of the (Vogelsong) study for use in the planned role in decision-making?" Four of the five reviewers concluded that the Vogelsong study did not provide a sound scientific basis for estimating ORV use at Cape Hatteras National Seashore or the economic impact of visitor spending associated with ORV use. All reviews concluded that the information provided in the report insufficient for making a decision regarding limiting or prohibiting the use of ORVs at the national park. All five reviewers were unanimous in their concern about the lack of detail on research methods provided in the report.

Up to now, especially with the development of the final ORV management plan, there has been no open peer review of studies, or any explanation of how decision-makers used the studies and the science to calculate various closure distances and protective boundaries that have now denied the public access to the shoreline. The justification for closure distances are the "opinions" presented in ***Synthesis of Management, Monitoring, and Protection Protocols for Threatened and Endangered Species and Species of Special Concern at Cape Hatteras National Seashore, North Carolina***.

One governmental action the concerned public now asks of the Park Service and Department of Interior, is to establish a review panel made up of senior government scientists, who are at arms length to research the science related to the Outer Banks and the ORV management issue. These government scientists should be recruited from throughout the federal government and should be non-affiliated with any special interest group related to the ORV issue. They can be asked to do the following:

1. Review and comment on the strengths, weaknesses, and limitations of the key studies used to make closure decisions as required by the consent decree or any future ORV management plan.
2. Explain specifically how the science is used to calculate or justify closure boundary distances for various species so as to demonstrate that they are not mere opinions or arbitrary management actions.
3. Recommend alternative management options that might allow a better balance of public access and species protection based on their unbiased review of the science.
4. Consider new science. Answer questions concerning the science asked by all interested members of the public.

An alternative to the above is for the Department of Interior to ask the National Academy of Science to conduct to review of science. This however, would be a time consuming endeavor.

/s/ Michael A. Berry, PhD
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