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## Guest Column: Science and the consent decree, the need for public review, and the case for ending negotiated rulemaking

By MICHAEL A. BERRY

The public needs to know the facts about the so-called "best available science" given as the justification for denial of public access to much of the shoreline at the Cape Hatteras National Seashore this summer.

Opening up the so-called "best available science" to in-depth public review is the most important thing any of us can do to bring equity and clarity to the access issue. The lack of public understanding and transparency about the science and the misapplication of so-called best available science are causing a tremendous amount of beach access loss, public anxiety, social tension, distrust of government, and economic loss.

"Best available science" or valid science is often represented as research conducted by qualified individuals using documented methodologies that lead to verifiable results and conclusions. It is important for government officials, the courts, and the public to understand how to identify valid science and how best to integrate it into policymaking.

"Best available science," as touted by the environmental groups is opinion disguised as science.

In 2004, the National Park Service (NPS) asked the United States Geological Survey (USGS) to recommend management protocols that would provide technical advice in the form of options for managing protected species at the seashore. The protocols were released to the public in October, 2005.

It was clearly stated in the public notice that the protocols:

"...represent the *professional opinions* of scientists that analyzed and interpreted the scientific data associated with protected species found at the seashore."

And:

"The information provided in the Protocols can be used by park managers as a tool to assist in the development of management plans and conservation strategies for species protection and public use. In addition to science, many other factors such as federal laws and mandates, National Park Service (NPS) policies, public input, practical field experience, and other scientific information are also considered in the development of plans and strategies."

The protocols are currently available on the Interim Protected Species Management Strategy Web site at <http://parkplanning.nps.gov/document.cfm?parkID=358&projectId=13331&documentID=12970>

Since their release, the protocols have been touted by environmental activist organizations as the "best available science," the reason and justification for the extensive closures that have denied thousands of citizens ORV and foot access to many popular beaches in the national park this summer. That claim needs to be examined closely.

Give the enormous beach access loss and inconvenience to the public and economic damages and loss to the Outer Banks community resulting from the application of these protocols, the public may wish to consider the following.

The management options in the protocols are not science. They go beyond the bounds of scientific method. They appear in no textbook or science journal. They are opinions of scientists asked to make a technical recommendation on how to manage a specific resource, without regard to the full consideration of the law, the economy, and public use.

Science answers the question "how?" Science explains how the environment is structured and how it functions. A

science is a specific body of knowledge derived from the scientific method. The scientific method is a process known as hypothesis testing. It is a procedure in which we conjecture possibilities (hypothesize); design and execute an experiment to test the hypothesis; make and measure observations; collect and analyze data; and draw conclusions whereby we accept or reject the hypothesis. The scientific method forces us to go beyond personal opinion and political correctness.

Through the scientific method we discover, replicate experiments, or demonstrate facts. We often refer to the scientific method as "research," which is the process of guided learning.

In all sciences, particularly wildlife science, there are many uncertainties, data gaps, and limited observations. These limitations always need to be disclosed as part of the scientific process, especially when the "science" is used as the basis for regulation.

Environmental management is separate and distinct from the scientific process. Environmental management is the process of making policy decisions and taking actions with regard to public and environmental resource needs after considering science, along with the multitude of public interests and legal and economic feasibility and risk considerations.

We cannot manage what we do not understand. That is why responsible environmental management policy must always consider sound science. All substantive environmental management and policy begins with a basic understanding of how the environment works but also recognizes the limitations and boundaries of science

Often managers and policymakers call upon scientists to render opinions about the meaning of data. Those opinions are not part of the formal scientific method and are personal judgments. The mere personal opinions and even professional judgments of a scientist do not constitute a scientific fact, proof, demonstration, or hypothesis acceptance.

Science-related statements for government regulation have great public impact and high costs. Statements must be fully referenced and clearly indicated as actual observations, hypothesis, speculation, or personal judgment.

For that reason, science must be peer reviewed and scientists must be questioned. Science is the only discipline that opens itself to disproof. Credible scientists accept that as part of knowledge building.

Far too often there is a misuse and misrepresentation of science to achieve political objectives. In 1974, Harvey Brooks, Dean of Engineering, at Harvard University made the following statement that applies today:

*"Scientists can no longer afford to be naïve about the political effects of publicly stated scientific opinions. If the effect of their scientific views is politically potent, they have an obligation to declare their political and value assumptions, and try to be honest with themselves, their colleagues, and their audience about the degree to which their assumptions have affected their selection and interpretation of scientific evidence."*

There was never a review of the science on which the restrictions and closures in the consent decree are based.

Science and the law are interdependent. As Supreme Court Justice Stephen G. Breyer said in 1998, "The practice of science depends upon sound law... It is equally true, that the law itself increasingly needs access to sound science."

Judges are not scientists and avoid ruling on science. Increasingly they use pretrial conferences to narrow the scientific issues in dispute, pretrial hearings where potential experts are subject to examination by the court, and the appointment of specially trained "law clerks" or scientific "special masters."

A review to determine the validity of the so-called "scientific fact" never occurred during the recent consent decree proceeding. As a result, the public lost access to the beaches of its national park.

The USGS protocols were simply accepted at face value.

The protocols continue to be used as "best available science" in the development of the final ORV management plan through negotiated rulemaking.

There is no public record that the protocols that have been the source of closures have been officially peer

reviewed following USGS peer review policy.

The following can be found within the USGS Peer Review Policy <http://www.usgs.gov/usgs-manual/500/502-3.html>

*Peer review, as a cornerstone of scientific practice, validates and ensures the quality of published science. Peer Review is scrutiny of work or ideas by one or more others (peers) who are sufficiently well qualified, who are without conflict of interest, and who are not associated with the work being performed.*

*A peer is defined as one who is of equal standing with another; in science, the implication is that education and/or experience qualify one to comment on the work of others in a particular field of expertise. These persons may be internal or external to the organizational entity in which the review is conducted. Peer reviews must include at least two qualified scientists who have no stake in the outcome of the review, who are not associated with the work being performed, and who are without conflict of interest.*

*Information products sent to an Approving Official must include a reconciliation document indicating how review comments were addressed.*

*Qualified reviewers must be true peers, must not be associated with the work being performed, and should be selected for their relevant scientific and technical expertise, including those who may apply different methods of study to related scientific questions.*

*Peer reviewers should be sought outside a scientist's own discipline where appropriate.*

*Reviewers should be able to ensure that the science is effectively presented with the intended audience in mind and be cognizant of controversial or high-visibility issues that may be relevant to public policy.*

*Guidance on peer review selection for "highly influential scientific assessments," as defined by the Office of Management and Budget, is found in [OMB, Final Information Quality Bulletin for Peer Review](#).*

*Two peer reviews by qualified scientists are mandatory for all information products. One reviewer must be from outside the originating office; the other may be from the originating office of the information product.*

*Additional peer review may be necessary, depending on the scientific complexity of the product and the [intended audience](#).*

*USGS pursues vigorous and open peer review of its science and its information products. Issues related to scientific excellence, objectivity, integrity, and conflict of interest are dealt with in accord with established DOI and USGS codes of scientific conduct.*

*Documentation and records are part of the official record.*

The USGS protocols are not dated.

There is no USGS document or publication number.

There is no indication that the protocols were ever published in the Federal Register and made known to the public, other than in local press releases.

Scientists having any kind of conflict of interest association, whether through membership, collegial associations, funding, or grants must disclose the relationship. Some authors and reviewers of the protocols were members and associates of the organizations now using the protocols to restrict public access to the beaches of the national park, a fact never disclosed openly and not in compliance with USGS peer review policy.

There is no public file, docket, or documentation of peer review questions, comments, or author response.

This speaks volumes as to the lack of formality and serious purpose of the protocols.

In that the protocols have not undergone formal open scientific review, they could never be used as a "Hard Look Doctrine" basis for regulation and rulemaking by any of the federal agencies, when subjected to review by federal

courts.

The recent peer review of the Vogelsong economic 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 was insufficient for making a decision about 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.

The buffer distances that have closed down the beaches of the park and have turned them into bird-use areas are published on Page 12, Table 1 of the report "Synthesis of Management, Monitoring, and Protection Protocols for Threatened and Endangered Species and Species of Special Concern at Cape Hatteras National Seashore, North Carolina. "

These restrictive distances have been written into the consent decree and prevent public access to the beach.

Nowhere is there an explanation of how scientists used studies and their science to calculate or arrive at various closure distances and protective boundaries that have now denied the public access to much of the shoreline.

Given the high costs, the public deserves a clear explanation and justification.

What is the specific basis in science?

Science always requires measurement. Where are the data and measurements that indicate or suggest the boundary distances?

What were the analytical methods and rationale the authors used to arrive at the buffer distances?

There is nothing in law that requires the application of the USGS Protocols. It is strictly the management responsibility of the NPS as to how the protocols will be considered and used in resource management.

Science advisors to government officials and agencies are just that -- advisors. Often when the advice is relevant, it is considered. However, there is no requirement that advice be followed. Far too often in an effort to dodge difficult political issues, government decision-makers use science as a shield and an excuse for not making decisions they are duty bound to make.

The complaints and concerns of thousands of citizens about the restrictions brought about by the consent decree issued on April 30 motivated both North Carolina U.S. Senators and a U.S. Representative to introduce legislation that returns the management of the seashore back to the Park Service. The bills are Senate Bill 3013 and its companion, House Bill 6233.

A U.S. Senate subcommittee had a hearing on the proposed legislation on July 30.

So what happens? A deputy director of the National Park Service sits before the subcommittee and essentially says NPS does not want management prerogatives restored. NPS is quite satisfied in insulating itself from the public, hiding behind the consent decree and letting special interest groups, which answer to no one, dictate how the park will be managed for three years using unsubstantiated science claims.

The NPS Official testified in part:

"Although the breeding season is not yet completed, it appears that actions taken under the consent decree have been beneficial for resource protection."

"S. 3113 would reinstate the Interim Strategy for ORV use at the Seashore and declare the consent decree

inapplicable. A return to managing the Seashore under the Interim Management Strategy would result in a reduction in the size, frequency, and timing of the buffers protecting federally and state listed species, and a likely reduction in the increase in nesting activity observed in 2008.”

The claims of encouraging signs of increased bird and turtle population in just 90 days because of the consent decree is taken from environmental organization press releases. Every professional scientist knows it is far too early, and there are limited data to make such claims. These claims are not science based. They are miraculous, laughable, or purely political.

In concluding his testimony, the NPS deputy director, Daniel Wenk, said,

“We strongly believe that completion of the long-term ORV management plan and special regulation is the best way to involve all interested parties, including the general public, and meet the Service’s responsibilities under the Endangered Species Act, National Park Service Organic Act, Cape Hatteras National Seashore Enabling Act, Migratory Bird Treaty Act, and other applicable laws. Through this process, the National Park Service will determine how to provide appropriate resource protection and reasonable visitor access at the Seashore. While we continue to implement the consent decree, we are actively working with all interested stakeholders in the development of the regulation and plan...”

Regrettably, the Regulatory Negotiation Process (RegNeg) -- established last year to implement Executive Order 11989, to avoid litigation, and to provide the Park Service with useful information for writing a final ORV management plan -- is showing no signs of making significant progress in reaching any consensus between ORV access and environmental activist stakeholders. Besides an overall level of distrust caused by litigation brought by environmental activist stakeholders that led to the consent decree, a primary cause for impasse is the perpetual claim by the environmental groups that the “best available science,” mainly the USGS protocols, dictates hard and fast levels of restriction for species protection.

The public would be best served if the RegNeg process would fold and cease to exist.

Section 3b of the Executive Order states, “The respective agency head shall ensure adequate opportunity for public participation in the promulgation of such regulations...”

Under the RegNeg process, public comments and concerns, especially concerning science and the need for science review, are not being captured and considered. There is no official record of public comment. Public input is limited and superficial. Public comment hour at the RegNeg meetings is a glorified venting session with very little constructive suggestion for an ORV management plan that complies with the Executive Order.

We—all users of the park—would benefit much more from a traditional rulemaking process, legally governed by the Administrative Procedures Act. A rulemaking process can incorporate well-organized and documented public hearings and a highly transparent and open public review and comment of a proposed ORV management plan written by NPS. It can also incorporate independent science advisory board reviews of all the science underpinning the ORV management plan.

Until the public feels confident that the federal government is managing the seashore in an equitable manner based on sound unbiased science, it will not trust the government or buy into a final plan.

Instead of wasting time and public resources with a RegNeg process that is going nowhere, the Department of Interior is well advised to begin immediately to establish an independent advisory body, such as the National Academy of Sciences or EPA Science Advisory Board, and charter that body to:

- 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.
- Explain specifically how the science is used to calculate or justify closure boundary distances for various species to demonstrate that they are not mere opinions or arbitrary management actions.
- Recommend alternative management options that might allow a better balance of public access and species protection based on their unbiased review of the science.

We the public have lost control of our government and our precious national seashore. To restore access, we need

to create a public record of concerns and scientific fact. We need to present that information formally to our government decision-makers and elected lawmakers to make sure there is balanced and equitable access and use of our park. We need to write many more letters, make many more phone calls, and continue to support and thank our elected officials who introduced and support the legislation NPS now opposes.

**(Dr. Michael A. Berry served as any Army officer in Vietnam in the 1960s. After returning to civilian life, he earned a Doctorate in Public Health and worked in the U.S. Environmental Protection Agency, where, as a senior manager and scientist, he served as the Deputy Director of National Center for Environmental Assessment at Research Triangle Park, N.C. During his 28-year career with EPA, he had extensive interactions with environmental organizations, local governments, the federal courts, U.S. Congress, universities worldwide, and institutions, such as the National Academy of Sciences, the World Health Organization, and the North Atlantic Treaty Organization. For more than 20 years, Dr. Berry taught public health, environmental science, and business and environment courses at the University of North Carolina. He is currently a writer and part-time consultant, specializing in the evaluation of environmental quality and human health effects, environmental management strategies and policy.)**

[Click here for a summary of the United States Geological Survey protocols](#)

## References

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