

DISCUSSION DRAFT:
A NATIONAL FISH AND WILDLIFE
CLIMATE CHANGE ADAPTATION STRATEGY

The Intergovernmental Panel on Climate Change (IPCC) defines “adaptation” *as an adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.*

Successful adaptations to abruptly changing climate will require unprecedented collaboration between public and private partners, across the country and internationally. The goal of this paper is to support discussion of a long-term strategy to assist climate adaptation by species and ecological systems, and to maintain as many important ecological benefits of these systems as possible for the benefit of humankind.

Why Pursue a National Fish and Wildlife Adaptation Strategy?

The IPCC indicates that during this century the resilience of ecosystems may be exceeded, many species will become threatened with extinction, and ecosystem structure may change greatly. Crucial resources necessary for fish, wildlife, and plants, as well as humankind, such as water, will change with potential reductions and seasonal shifts in availability. Sea levels will continue to rise, threatening both coastal ecosystems and coastal communities. Disturbances such as catastrophic wildfires, insect outbreaks, and spread of invasive species will increasingly threaten functioning ecosystems as well as human communities. Against this backdrop of large-scale change in major ecosystems indiscriminately crossing political boundaries, an integrated, coordinated, and comprehensive response is necessary.

Societies respond to climate change by adapting to its impacts (adaptation) and by reducing greenhouse gas emissions (mitigation), thereby reducing the rate and magnitude of change. Greenhouse gas emissions continue to rise at an alarming rate, and even if we were to stabilize these emissions a certain amount of warming is guaranteed by the concentration of anthropogenic greenhouse gases already in our atmosphere. The Department of the Interior (DOI) is optimistic about the future and the ability of humans to reduce their output of greenhouse gases. DOI is taking steps to aggressively reduce its carbon footprint and position itself to lead by example. However, reducing emissions will not be enough. We also must begin helping species and ecosystems adapt to climate change and to continue to produce essential goods and services (e.g., wildlife, fish, clean water, and clean air) for humankind.

In addition to designing balanced strategies for traditional and low-carbon energy development, Secretary Salazar’s energy and climate change task force is designing DOI-wide policies for the prioritization of climate and adaptation science, adaptive management and solutions to climate change, the capture and storage of carbon by our nation’s ecosystems, and education and outreach opportunities on these topics. These twin energy and climate change strategies will help protect our treasured landscapes and ecosystem services while at the same time creating jobs and contributing to national economic and environmental health.

Thus a national adaptation strategy for fish and wildlife is a necessary component of an overall adaptation strategy, and the importance of fish and wildlife adaptation has been recognized by Federal lawmakers.

Discussion about the need and potential for a concerted national adaptation effort—including a national fish and wildlife adaptation strategy—seems timely if we are to successfully conserve fish, wildlife, plants and functioning ecosystems in this time of accelerating global climate change. The adverse effects of climate change upon natural resources will be pervasive, and will be manifest across landscapes, irrespective of ownership and administrative boundaries. By working together in an effective, efficient and coordinated way, private conservation interests, States, Tribes, private landowners, the federal government, academia, and the public can help these species and ecosystems adapt by increasing their resilience and decreasing their vulnerability to climate change. No longer can we assume that traditional *coordination* between organizations will ensure continued production of ecological goods and services for the benefit of humankind. Rather, a new concept and goal of *interdependency* is essential to the development of a national adaptation strategy. The effort will be difficult and costly but is essential to our success as conservation organizations, and it will be a crucial element of broader adaptation strategies benefiting human society globally.

What is a National Fish and Wildlife Adaptation Strategy?

A national fish and wildlife adaptation strategy is a component of an overarching adaptation strategy and may consist of an agreement among major conservation interests (e.g. local governments, States, Tribes, conservation organizations, federal agencies, and private landowners) that identifies and defines principles and methods to maintain key terrestrial, freshwater and marine ecosystems and functions needed to sustain fish, wildlife and plant resources in the face of accelerating climate change. In short, it would be a blueprint for action that outlines appropriate scientific support (including inventory, monitoring, research and modeling to inform management decisions); the need for and importance of collaboration and interdependency; and the financial resources (including grants, appropriated funds, private contributions) to implement the decisions. The strategy would enable the national and international conservation communities to harness collective expertise, authorities, and abilities to define and prioritize a shared set of conservation goals and objectives, as well as prescribe a plan of concerted action.

What are the Steps Needed to Create the Strategy?

Members of the conservation community have been meeting during the past year to discuss fish and wildlife adaptation in response to climate change. However, these efforts need to be expanded to include leaders from across the spectrum of the conservation community. The Fish and Wildlife Service is hosting a June 2-3, 2009 forum to catalyze discussion, and if appropriate, identify subsequent direction and discussion. Subsequent forums would target broadening participation and perspectives and defining a functional framework for collaborative conservation. Ultimately, the Strategy will take several years to complete and will require a

sustained effort by participants from across the spectrum of the national and international conservation communities.

By working together, private conservation interests, States, Tribes, private landowners, the federal government, academia, and the public can help species and ecosystems adjust to changing conditions on the landscape by increasing their resilience and decreasing their vulnerability to both climate and non-climate stressors. A consortium of conservation interests will also be positioned to collectively evaluate relative risks to ecosystem functions and transparently consider priorities and potential for “triage” in conservation actions.

What is the Urgency to Create a National Fish and Wildlife Adaptation Strategy?

Against the backdrop of rapid change in major ecosystems that is likely to accompany increasingly abrupt climate change, a comprehensive adaptation strategy -- which includes a significant fish and wildlife adaptation component -- is essential. Time is short, and the time, effort and resources required for creation and implementation of a workable and agreed-upon strategy is substantial. The stakes are high, and we, the conservation leaders of the U.S., need to get this approach right the first time. There is too much riding on our success or failure, and we cannot afford to continue to act as disparate organizations in pursuit of independent objectives. A fully integrated, effective and efficient national adaptation strategy is our best hope to succeed. We must act now, and we must act decisively.