

**TESTIMONY OF P. LYNN SCARLETT
DEPUTY SECRETARY
DEPARTMENT OF THE INTERIOR
BEFORE THE HOUSE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR,
ENVIRONMENT AND RELATED AGENCIES
REGARDING CLIMATE CHANGE**

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Mr. Chairman, members of this committee, I am pleased to participate in this hearing on climate change. Through my overview, accompanied by presentations from several of the Department of the Interior's bureaus, we will highlight the effects of climate change on Federal lands, and waters, and how we are responding to those changes, and the role Interior plays in moderating greenhouse gas emissions.

Perhaps no subject relevant to managers of public lands and waters is as complex and multi-faceted as climate change. A changing climate may affect precipitation patterns, types and distribution of vegetation, incidence and severity of storms, the habits and habitat of wildlife, fire frequency, sea levels, and disease trajectories.

Interior's mission lies at the confluence of people, land and water. Hence, these possible landscape changes resulting from a changing climate may directly affect how we fulfill our mission. Consider Interior's vital statistics. We manage one in every five acres of the U.S. land mass. We operate dams and irrigation facilities that provide water to farmers who generate nearly two-thirds of the Nation's produce. We manage leases from which one-third of the Nation's domestic energy supplies are produced. The lands and waters we manage account for significant contributions to alternative energies such as biomass, geothermal, solar, and wind power. Our presence along the Coast is significant, with extensive areas of shoreline managed by parks and refuges.

Interior's U.S. Geological Survey plays an important role in generating earth science information and analysis. The Department also has a special role working with the State of Alaska and rural and Native Alaskan populations in maintaining fish and wildlife to support subsistence harvests.

In short, how well we do our jobs touches the lives of each and every American. It is, therefore, imperative that we understand climate dynamics, evaluate changes on the landscapes we manage, and take prudent steps to adjust and adapt our management to new circumstances. We must anticipate and prepare for likely changes on those landscapes to reduce adverse effects. Finally, we must also implement feasible and prudent measures to reduce greenhouse gas emissions through our own land, facility and fleet management.

Complicating our planning and responses are continued uncertainties, especially about the timing, scale, and site-specific incidence of climate change impacts. Widely respected models differ in their projections about precipitation patterns, changes in vegetation,

extent of sea level rises, and so on. Moreover, global climate modeling is currently unable to provide meaningful descriptions and projections at the regional and smaller scales that are needed to be useful for land managers on the ground.

These are our challenges but we are, across the entire Department, undertaking deliberate and focused efforts to address them. To coordinate and focus our efforts on climate change, Secretary Kempthorne convened a Climate Change Task Force, which I chair.

The Task Force comprises three subcommittees. The first, on legal and policy issues, is reviewing current practices for considering climate change effects in land-use planning and other formal procedures and decisions. That subcommittee is also reviewing relevant court decisions, Administration policies, and practices of other agencies. Their goal is to help guide the Department toward coherent, consistent decision making and documentation.

The second subcommittee focuses on land and water management. We will be cataloguing the types of impacts relevant to Interior managed lands and waters. The subcommittee will evaluate current and prospective options for addressing the effects of climate change. They will also examine our role in carbon sequestration. Finally, they will evaluate the management of Interior's facilities and fleet to identify opportunities for energy conservation and a broadening of the mix of energy resources we use.

The third subcommittee, chaired by USGS scientist Tom Armstrong, will focus on climate change science issues specifically relevant to Interior's responsibilities. The subcommittee will explore whether modeling might be developed at regional scales to better project more location specific changes to the landscapes we manage. They will evaluate information needs and whether new types and greater extent of monitoring might strengthen our understanding of on-the-ground trends in water availability and timing of flows, vegetative patterns, movement of species and so on.

With our extensive responsibilities in land and water management, several climate-sensitive problems are particularly relevant to the Interior Department. These include disaster management, water resource management, and habitat management.

My colleagues here today will detail some of our current and potential responses in these areas. But I will offer a flavor of the adaptation strategies we are both implementing and considering.

In water management, we've augmented our cooperation with States, irrigation districts and others to improve and implement conservation measures through precision irrigation, water banking and other best management practices.

Especially significant are our strategies to enhance the resilience of coastal ecosystems. We believe we need to continue to reduce wetland loss, both for the environmental benefits that result and because coastal wetlands and sea marshes serve as "horizontal levees", absorbing and reducing impacts from coastal storms.

For terrestrial areas, fire management and the President's Healthy Forests Initiative have a nexus to managing for the effects of climate change. One possible outcome of climate change is an increase in the incidence and severity of wildland fire in some parts of the continent and in Alaska. Such predictions underscore the imperative of continuing to reduce high fuel build up that has resulted in unnatural, catastrophic fires.

Though the effects of climate change present challenges for Interior, we also see opportunities to mitigate greenhouse gases through reforestation. Reforestation offers direct benefits for habitat enhancement while, at the same time, bringing about carbon reduction results. Already, in the Southeast, our Fish and Wildlife Service is working with the private sector to replant over 80,000 acres of forested lands in a carbon sequestration partnership.

Interior is working on carbon sequestration partnerships, in collaboration with the Department of Energy, EPA, and others. We are also developing ways to cost-effectively broaden the portfolio of energy sources we use in our operations, and increase energy efficiency in Interior's facilities and vehicle fleet. Interior manages approximately 145,000 facilities, more than any other agency except the Department of Defense. With many diverse facilities, Interior has opportunities to showcase for the Nation energy conservation strategies. Already, use of renewable energy accounts for nearly 15 percent of the Department's energy use. With that percent, we outperform much of the Nation. Over the past 15 years, we've developed some 867 on-site renewable energy projects that include solar thermal projects, geothermal heat pumps, photovoltaic and wind projects.

Interior's consumption of petroleum based products in vehicles has declined 15 percent since 1999. We've achieved these reductions by reducing the size of the motor vehicle fleet, right sizing vehicles to meet mission requirements, and using alternative fuels. In fact, over 2,400 alternative fuel vehicles are part of Interior's motor vehicle fleet.

As Interior's managers anticipate and observe changing landscape conditions, several considerations may complicate our decisions. Most modeling efforts in climate change do not offer site specific predictions, yet actual impacts are and will be site specific. Modeling efforts to date that strive to give location specific detail still involve significant uncertainties. These uncertainties make incorporating climate considerations into land management decisions difficult. On the other hand, many of our land managers are already observing changes to the lands they manage that may be a result of climate change. Some of these changes, such as glacial retreat, are well documented through our own decades long monitoring, although our understanding of the role that climate change plays in this retreat is still developing. Appropriate responses to such observed changes are unclear.

For example, many parks, refuges and other conservation areas were created to preserve a specific mix of species within specific boundaries. Is in situ conservation possible within current, fixed boundaries, if species composition is changing? One possible management response to this dynamic, shifting context for species is cooperative conservation.

If species are shifting their nesting, forage, and other sites, partnerships with those who own and manage the sites may enable us to fulfill our wildlife management responsibilities.

Consider another question. If climate change alters the range, type and abundance of species on Interior lands, does that affect how we define and think about invasive species?

These are the kinds of questions Interior's land and water resource managers are asking. Through Secretary Kempthorne's Climate Change Task Force, we expect to illuminate our biggest challenges, prioritize our actions, and coordinate with USGS and the broader scientific community to identify prudent response strategies.

I thank you for convening this timely hearing and look forward to answering any questions.