

Questions & Answers

Climate Change Strategic Plan

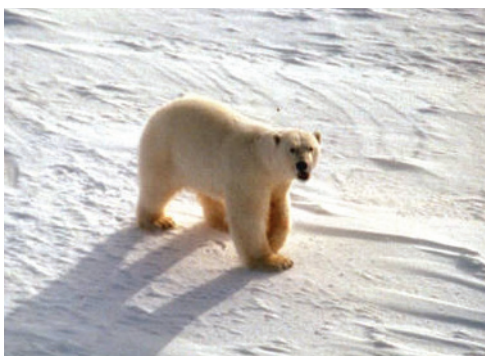
In summary, what is in this plan?

The U.S. Fish and Wildlife Service's Climate Change Strategic Plan emphasizes three concepts: adaptation, mitigation, and engagement.

- **Adaptation** is defined by the Intergovernmental panel on Climate Change (IPCC) 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.*”

For the Service, adaptation is planned, science-based management actions, including regulatory and policy changes, taken to help reduce the impacts of climate change on fish, wildlife, and their habitats. Adaptation forms the core of the Service's response to climate change.

The principal approach to fish and wildlife adaptation will involve the strategic conservation of terrestrial, freshwater, and marine habitats within sustainable landscapes to achieve the goal of conserving target populations of species or groups of species and the ecological functions that sustain them.



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- **Mitigation** is defined by the IPCC as “*human intervention to reduce the sources or enhance the sinks of greenhouse gases.*”

Mitigation involves reducing the “carbon footprint” by using less energy, reducing consumption, and appropriately altering land management.

Mitigation is also achieved through biological carbon sequestration, the process by which CO₂ from the atmosphere is taken up by plants through photosynthesis and stored as carbon in biomass (e.g., tree trunks and roots) or stored as organic carbon in soil. Sequestering carbon in vegetation, such as bottomland hardwood forests, can often restore or improve habitat and directly benefit fish and wildlife.

- **Engagement** is reaching out to Service employees as well as local, national and international partners in the public and private sectors, key constituencies and stakeholders, and citizens to join forces in seeking solutions to the challenges and threats to fish and wildlife conservation posed by climate change.

By building knowledge and sharing information in a comprehensive and integrated way, the Service, partners and stakeholders can increase understanding of global climate change impacts and use combined expertise and creativity to help wildlife resources adapt in a climate-changed world.

Through engagement, Service employees will be better equipped to address climate change in their day-to-day responsibilities. Additionally, America's citizens will be inspired to participate in a new era of collaborative environmental stewardship, working to reduce their carbon footprints and supporting wildlife adaptation efforts, and leaders at the local, regional, national, and international levels will be motivated to craft and support legislation and policy that address climate change and consider its impacts to fish and wildlife.



Banks Lake National Wildlife Refuge by Ryan Hagerty

How did the Service evaluate employee and public comments and incorporate them into the plan?

- The Service conducted an internal and external review process for the draft Climate Change Strategic Plan.
- All Service employees were given an opportunity to review and comment on an early draft of the strategic plan. The hundreds of employee comments received were sorted and synthesized by contractors and presented to a small group of Service leaders who decided how the strategic plan should be modified in response to the comments. The draft plan was subsequently revised according to the group's direction.
- The revised draft strategic plan was then made available to the public for review and comment. We received approximately 70 sets of comments, including from various conservation organizations and agencies. Public comment helped focus the plan's discussion of several topics: a National Fish and Wildlife Climate Adaptation Strategy, Landscape Conservation Cooperatives, vulnerability assessments, and types of adaptation. This greater focus helped to clarify and strengthen key areas of the plan.
- The final plan thus reflects comments received from Service employees and the public.





Harris Neck NWR by J & K Hollingsworth

How is the Service implementing its Climate Change Strategic Plan?

- The service is implementing its strategic plan through a dynamic 5-year action plan that outlines specific actions necessary to achieve the goals and objectives of the strategic plan over the period 2009 through 2013.
- The action plan is stepped down to annual Climate Change Action Priorities (CCAPs), which are the actual actions undertaken by the Service each year based upon availability of funding and manpower. The Service is currently implementing CCAPs for the 2010-2011 fiscal years.

Why is the Service committing to action before finalizing a long-term adaptation strategy?

The Service is moving forward with both short- and long-term approaches to climate change. While the complex and sweeping nature of the problem requires a thoughtful, comprehensive approach to adaptation (which will be outlined in the National Fish and Wildlife Climate Adaptation Strategy due to be completed by the end of 2012), the Service must start now to establish a foundation for all future work, because climate change:

- Is the single greatest conservation challenge of the 21st century;

- Is increasingly a determinant of mission success for the Service and partners;
- Reinforces the Service's current direction of change and efforts to build partnership-based capacities for landscape-level conservation; and,
- Requires immediate reevaluation of near-term conservation priorities and approaches, and an alignment of work to ensure wise investment of limited resources to achieve the most important conservation outcomes on landscapes impacted by climate change.

What factors are driving the Service's approach to climate change?

The Service is already witnessing and documenting the effects of climate change on fish and wildlife and their habitats, and accelerated climate change is magnifying impacts on water and land resources, agriculture, and biological diversity. Accordingly, the Service must lay a foundation and prepare a comprehensive and long-term response to issues such as:

- Changes in the timing, location, and intensity of wildfires;
- Changes in rain and snowfall patterns;
- Increases in temperature in many locations;
- Changes in access to water resources;
- Altered hydrology in rivers and wetlands;
- Increased frequency of extreme weather events; and,
- Rising sea levels at the Service's coastal and island refuges.

Climate change will amplify existing management challenges involving habitat fragmentation, urbanization, invasive species, disease, and wildfire, all of which necessitate an emphasis on large areas with interconnected and ecologically functional habitats capable of sustaining many species — landscapes — rather than single species or isolated or remnant habitats.

How does the Service's Climate Change Strategic Plan align with the Department of the Interior's overall strategy for climate change?

The Service's Climate Change Strategic Plan is an integral part of the Department of the Interior's strategy for

addressing climate change as outlined in Secretarial Order 3289 issued Sept. 14, 2009.

- The Secretarial Order calls for the development of a network of Landscape Conservation Cooperatives (LCCs) that will engage Federal, State and Tribal agencies, private landowners and all partners to coordinate adaptation planning efforts beyond the borders of federal lands. The LCCs will be guided by the *Energy and Climate Change Council*, which is composed of high-level DOI officials, including the Director of the Fish and Wildlife Service.
- LCCs will work closely with the nation's eight regional climate science centers (CSCs). The USGS-led centers are tasked with providing climate change impact data and analysis geared to the needs of fish and wildlife managers as they develop adaptation strategies.
- The Secretarial Order also creates the DOI Carbon Storage Project to develop biological and geological carbon sequestration (storage) program, and the DOI Carbon Footprint Project to develop a Department-wide greenhouse gas reduction program. The Service is already engaged in both projects.

Is the Service headed in a dramatically new direction that will make the work of past decades irrelevant and obsolete?

On the contrary, the Climate Change Strategic Plan represents a concerted effort on the part of the career professionals of the Service to keep the agency's conservation legacy relevant. Climate change threatens to alter ecosystems and push species to extinction and thereby undo much of what the men and women of this agency have accomplished over the past 70 years. The plan builds upon the Service's proud history and demonstrated success as the nation's leading fish and wildlife conservation agency and harnesses all the knowledge, expertise and sheer love of mission to confront the defining challenge of this time.

For more information on how the U.S. Fish and Wildlife Service is working with others to conserve the nature of America in a changing climate, visit <http://www.fws.gov/home/climatechange>