

# Completing a Wildlife Habitat System for the Nation

A Summary of Results from the



**Wildlife Habitat  
Policy Research  
Program**

September 15, 2010

# Habitat conservation is a critically important investment

that our nation can afford. America has an abundance of public and private lands and waters that provide important fish and wildlife habitat and a host of other benefits. These resources are at greater risk today than ever before in our nation's history.

**The survival of one-third of the wild-life species in the United States is threatened by loss of wildlife habitat, climate change, environmental pollution, and encroachment of invasive species. Habitat loss is by far the greatest of these threats.**

Our nation's fish and wildlife habitat is facing serious impacts from climate change, energy development, land conversion, and other major changes in natural systems and human activities. Climate change is already bringing disruptions such as flooding of coastal wetlands resulting from rising sea levels and loss of fresh-water resources caused by intensified droughts and declining snowpack. As climate change accelerates, the need for effective habitat management and restoration is becoming increasingly pressing as ecological communities disassemble and species shift their ranges.



**Healthy habitats are necessary for a strong economy and quality of life.**

The decline of the nation's wildlife habitats should be of great concern for all of us. Wildlife habitat and other natural lands provide ecosystem services that contribute to healthy and secure lives for all of our nation's people. These services include:

- protecting watersheds that provide clean water for drinking and other human uses.
- preventing floods by retarding the flow of stormwater.
- enriching soil by recycling nutrients.
- providing recreational, aesthetic, and spiritual benefits.
- supporting biodiversity, the variety of plant and animal species that is essential to the health of natural biological systems and human communities.
- slowing climate change by sequestering (storing) carbon from atmospheric carbon dioxide absorbed by trees and plants.

**Our nation needs an integrated and effective approach to protecting, managing, and restoring wildlife habitats.**

This challenge is bigger than the mission of any single agency or organization; it must engage the energy, resources, and commitment of many people at many levels in the public and private sectors. We need expanded collaboration and partnerships across landscapes and jurisdictions.

**Our vision of a wildlife habitat system for the nation is a sufficient and comprehensive connected habitat network of lands and waters, from the inner city to the wilderness, and the resources to manage it.** The system must conserve enough habitat to sup-



port abundant and well-distributed fish and wildlife populations. It will require a comprehensive approach that encourages collaboration across disciplines, agencies, and land ownerships.

Although our nation has made important strides in fish and wildlife conservation over the past century, it has been common to manage only for single species and to act only when species are threatened with extinction. This approach is inadequate for the task of conserving the full diversity of life. Government agencies charged with managing natural resources often fail to take opportunities to broaden their roles by collaborating with available partners and leveraging new fiscal and technical resources.

**This new system must focus on landscapes—**

heterogeneous geographic areas composed of diverse patches or ecosystems that can range from relatively natural systems such as forests, grasslands, and lakes to human-dominated environments such as farmland and cities. This landscape-scale conservation perspective must be coupled with a more sophisticated analysis of where we need to conserve land and new management strategies for adapting over time to issues such as land conversion and climate change.

**Maps of priority areas can catalyze actions to conserve important habitats and help avoid, minimize, and mitigate habitat conversion and fragmentation.**

We need to build on past and current conservation efforts and identify high priority opportunities for future conservation investments. We must enhance our existing conservation system through easements, landowner agreements, market-based transactions, land purchases, and other approaches.

**Many tools are available to implement our vision.** We will need to blend mitigation and other regulatory approaches. In the public sector, we can draw upon public finance mechanisms such as bond acts, transfer taxes, development fees, and property taxes in addition to incentive programs and legislative appropriations. In the private sector, resources can come from philanthropic institutions, the generosity of landowners, and private investment entities that include conservation in their for-profit business models. Regulatory approaches can support conservation through land-use restrictions, mitigation requirements, natural hazard regulations, and natural resource damage settlements. Habitat conservation solutions will include a range of contractual arrangements, from fee-simple acquisition to short-term agreements for landowner stewardship.

**Cost estimates indicate that completing a wildlife habitat system for the nation is within the range of investments in other significant infrastructure projects**



**such as the National Highway System.** Scientific methods and data exist to generate reasonable estimates of the costs associated with various conservation strategies for individual landscapes.

**Our preliminary findings suggest that roughly \$12 billion annually will suffice to build a strong habitat system for the nation and that the benefits to people will significantly exceed that amount.** Approximately \$9.3 billion annually is already being spent on a broad land conservation agenda by federal, state, tribal, and local governments, as well as private entities. A significant part of this investment already provides habitat benefits, but a greater proportion could be targeted to conserve habitat in concert with other land protection goals.

**We can leverage more resources to support habitat conservation if agencies will consider non-traditional partners and sources of funds.** For example, at least \$3.8 billion annually is spent on habitat restoration through compensatory mitigation under the Clean Water Act and other environmental laws. Natural hazard mitigation projects also provide significant funding, as could mitigation requirements related to energy-development impacts.

**A wildlife habitat system for the nation must be built on the work of the broader conservation community, not just fish and wildlife agencies.** The first generation of State Wildlife Action Plans, produced by the nation's

leading wildlife experts, demonstrated that conservation partnerships and collaborations are as complex as the ecosystems that support fish and wildlife. In the future, conservation partners will not only be part of conservation delivery but will also be integral to conservation planning.

**The next step in conservation planning is to link species explicitly with priority habitats in an ecological framework to help us understand where to make the most effective conservation investments.** One goal of the U.S. Department of the Interior's Landscape Conservation Cooperatives (LCCs) is to increase information sharing that will promote conservation planning at the landscape scale. Initiatives such as America's Great Outdoors are working to define the lands that are needed for wildlife and people, another dimension to planning and implementing habitat conservation, as an outdoors that benefits wildlife includes healthy habitats.

To achieve its ambitious goals, the fish and wildlife conservation community will have to be extraordinarily persistent in moving toward a working model that recognizes not only the interconnections of conservation but an interconnected approach to collaboration that will enable the private, local, state, and federal conservation infrastructure to operate as a national network of partnerships that together can meet the goal of a wildlife habitat system for the nation.



## WHPRP Program Committee Members

Amy Ando  
Associate Professor,  
Dept. of Agricultural and Consumer Economics  
University of Illinois at Urbana Champaign

Rocky Beach  
Wildlife Diversity Division Manager  
WA Department of Fish and Wildlife

Chris Bernabo  
Chairman and WHPRP Program Director  
Nat'l Council for Science and the Environment

Kim Elliman  
Chief Executive Officer  
Open Space Institute

Dennis Figg  
Wildlife Program Supervisor  
Missouri Department of Conservation: Wildlife Division

Tom Franklin  
Director of Policy and Government Relations  
Theodore Roosevelt Conservation Partnership

Mike Harris  
Chief, Nongame Conservation Section  
Wildlife Resources Division  
Georgia Wildlife Resources Division

John Kostyack  
Executive Director  
Wildlife Conservation and Global Warming  
National Wildlife Federation

Alan Randall  
Department Chair,  
Agriculture, Environmental & Development Economics  
The Ohio State University

Peter Stein  
Managing Director  
The Lyme Timber Company

Bob Szaro  
Chief Scientist for Biology, Retired  
United States Geological Survey

Sara Vickerman  
Senior Director, Biodiversity Partnerships  
Defenders of Wildlife

---

WHPRP is conducted by the National Council for Science and the Environment and sponsored by Doris Duke Charitable Foundation.



DORIS DUKE  
CHARITABLE FOUNDATION

---

**The Wildlife Habitat Policy Research Program (WHPRP) has been working since 2006 to improve information and tools for accelerating wildlife habitat conservation in the United States in order to complete a wildlife habitat system for the nation. The WHPRP Program Committee has produced a report that presents its recommendations for completing such a system. These recommendations are supported by four years of focused research designed to define the system's scope and scale as well as challenges to completing it. The report includes specific findings from WHPRP-sponsored research and conferences and also reflects the Committee's judgments about the significance of the research results for wildlife conservation efforts. The full report is available online at: [WHPRP.org](http://WHPRP.org). This statement summarizes its principal recommendations.**