



# The Next Generation of Mitigation: Linking Current and Future Mitigation Programs with State Wildlife Action Plans and Other State and Regional Plans

**August 4, 2009**

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**Developed with funding provided by the Wildlife Habitat Policy Research Program**

# Executive Summary

The next generation of mitigation is explicitly designed to ensure that emerging resource conflicts arising from energy and other infrastructure development have more beneficial conservation outcomes. This white paper has been prepared by the Environmental Law Institute (ELI) and The Nature Conservancy (TNC). It is designed to define and describe the next generation of mitigation, which entails:

- A more comprehensive approach to application of the mitigation protocol (avoid, minimize, compensate) in existing and potential regulatory processes;
- Use of State Wildlife Action Plans and other plans to create an effective decision-making framework for the application of the mitigation protocol; and
- Allocation of compensatory funds derived from mitigation in a manner that supports lasting and large scale ecological results.

While new habitat protection legislation could improve mitigation, we believe much progress can be made by adjusting existing laws and regulations and using tools already available, if those tools are applied as proposed. The suggested changes can also bring greater efficiencies to the mitigation process, a result especially important at a time of limited financial resources. Guided by these practices, mitigation can benefit both conservation and economic goals by: reducing siting conflicts; increasing mitigation's consistency, transparency, and cost-effectiveness; reducing uncertainty and risks; and ensuring the delivery and durability of higher value conservation results. This is particularly true if consistent approaches can be taken across multiple jurisdictions.

# Background

In the coming years, the U.S. will experience significant loss of natural habitats due to population growth, infrastructure development, energy development, and climate change. In the energy sector, for example, in order to meet low carbon electricity and biofuel production requirements as much as one-fifth of the land area of the U.S. may be needed for energy production and transmission facilities. New or expanded transmission corridors will affect habitats extending beyond the footprint of the right-of-way. In the Mountain West, over 100,000 additional oil and gas wells with a footprint of roughly 2 million acres are anticipated over the next 20 years. Other infrastructure investments are also increasing with the recent passage of economic stimulus legislation that provides $150 billion for infrastructure including $50 billion for transportation projects. Climate change and sea level rise will demand new measures to deal with coastal hazards and altered rainfall patterns. These trends will have significant impacts on natural systems including habitat fragmentation and loss of ecosystem function. The effective use of regulatory programs coupled with careful mitigation could reduce and offset this damage, but past experience suggests the need for improvements to our approach to mitigation if this objective is to be achieved.

There are existing tools and precedents allowing us to achieve improved outcomes for the nation's at-risk habitats. In the U.S., we now have decades of conservation planning

experience, more comprehensive ecological data than ever available before, advanced modeling and planning tools, and a wealth of effective on-the-ground conservation efforts. And recent policies, such as the 2008 rule requiring a "watershed approach" to compensatory mitigation for losses of aquatic resources, support a more comprehensive framework for mitigation decision-making.[1]

# Findings and Recommendations for Action

A more comprehensive approach to mitigation is needed to sustain systems of interconnected, resilient, natural habitats. Such systems provide habitat for plant and animal species and support the resources and processes that underpin human well-being, such as water quality and quantity, pollination of crops, natural hazard mitigation, and recreational opportunities. Ensuring these benefits for future generations will require improvements in landscape and watershed planning, rigorous use of available ecological information, and greater consistency and coordination in applying mitigation strategies.

We find significant opportunities for improving the current mitigation framework to make it more effective in meeting the nation's conservation and development priorities. In general, we believe mitigation can move beyond what is often a piecemeal response, to a more integrated, consistent, and pro-active approach guided by landscape and watershed planning. Such an approach will deliver more effective conservation outcomes for wildlife, natural landscapes, and the ecosystem services on which communities depend. It will also help business by improving the basis for project planning, increasing mitigation efficiency, and reducing uncertainty and risks.

Fundamental changes needed:

**(1) Ensure consistent and rigorous application of the mitigation protocol** (avoid, minimize, compensate) for addressing impacts to wildlife habitat under existing, expanded, and future regulatory programs. We stress throughout this paper the primary importance of the avoidance and minimization elements of the protocol.

**(2) Use State Wildlife Action Plans, other federally recognized conservation plans (such as Coastal Zone Management Plans, Forestry Plans, and Endangered Species Recovery Plans), and regional plans as the framework for a more comprehensive approach to making the "avoid, minimize, compensate" decisions required by the protocol.** Use of this planning context will lead to decisions that provide stronger and more resilient protection for whole watersheds and other natural systems for their multiple benefits.

**(3) Give priority in the investment of compensatory funds to projects and activities identified by State Wildlife Action Plans and other plans and that are sufficient in scale and strategic in their location to support the long term health of whole ecosystems.** Further benefits can be achieved by anticipating compensation needs and accomplishing "advance mitigation" when the opportunities for larger ecosystem benefits still exist.

Supporting recommendations:

- Federal and state agencies should play a stronger role in supporting ecologically significant and rigorous mitigation.
    - The President's Council on Environmental Quality (CEQ) should lead an effort to achieve consistent application of the mitigation protocol across federal agencies and programs.
    - The CEQ and federal agencies should strongly encourage federal agency use of State Wildlife Action Plans, other federally recognized conservation plans, and detailed regional plans, to create a biologically-based framework for decision-making informed by environmental review under the National Environmental Policy Act.
    - State agencies responsible for permitting and decision-making should apply the mitigation protocol and make use of State Wildlife Action Plans, other federally recognized conservation plans, and detailed regional planning in their own decisions and approvals affecting habitat.
- State Wildlife Action Plans should be continuously improved to ensure that they support mitigation opportunities and decision-making. Specifically, they should identify sites or areas appropriate for restoration through compensatory mitigation. Some State Wildlife Action Plans use detailed mapping to convey the intent of habitat conservation in their states, but others lack the kinds of detailed information necessary to make specific resource planning and permitting decisions on the ground. State Wildlife Action Plans can more effectively guide the avoidance of key wildlife habitat, cumulative impact analysis, and the expenditure of compensatory mitigation funds if they set priorities for *protection* of high quality habitat and for *restoration* of important degraded habitat, related natural systems, and connectivity.
- A federal agency or institution should be tasked with assessing the outcomes of existing mitigation actions on landscape and watershed conservation under all federal statutes and should make periodic recommendations on how to improve mitigation across federal agencies. Among the specific issues that should be evaluated are:
    - The appropriate role of §404 of the Clean Water Act in efforts to deal with the permitting of wetland alterations associated with shoreline protection from sea level rise.
    - Use of the mitigation protocol in the location and expansion of military facilities.
    - Use of the next generation of mitigation in the planning and location of transportation facilities.
    - The consistent use and effectiveness of current avoidance and minimization measures employed across all

mitigation programs.
    - The availability and quality of the tracking programs (impacts, compensation, monitoring) utilized across all mitigation programs.
    - The effectiveness of current cumulative impact analysis conducted across all mitigation programs applied by multiple political jurisdictions within single watersheds and other landscape units.
- Federal energy and infrastructure legislation should expressly include requirements to use the mitigation protocol as it is described here in the planning and design of large scale energy facilities on federal lands and waters, in the design and siting of new transmission corridors that involve federal agencies such as the Federal Energy Regulatory Commission (FERC), and in the siting of major energy generating facilities financed through federal programs and loan guarantees. The mitigation protocol should also be incorporated into legislation guiding offshore energy siting for conventional and alternative energy sources.
- Despite the substantial scale and scope of the nation's current mitigation programs, which primarily protect many wetlands, streams, and the habitat of threatened and endangered species, other high value, natural landscapes remain unprotected. Conservation agencies and organizations should explore opportunities to adopt mitigation requirements for impacts to these key areas.

<u>Proposed Near-Term Actions:</u>

- The President's Council on Environmental Quality should convene a multi-agency workshop on the use of the mitigation protocol and on how mitigation could be used more effectively by federal decision-makers to achieve landscape scale/watershed scale conservation, considering both climate change and the likely impacts of new infrastructure and conservation investments.
- The U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency should undertake an evaluation of the effectiveness of the agencies' approach to avoidance and minimization and cumulative impact analysis. The agencies should consider developing guidance and tools to support the ability of field staff to undertake this analysis.
- The U.S. Fish and Wildlife Service should meet with the Association of Fish and Wildlife Agencies and with other stakeholders to evaluate how State Wildlife Action Plans could be adapted and coordinated with other natural resource plans to better serve as the framework for the effective use of the mitigation protocol in multiple programs.
- U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration should commit resources to developing effective policies and tools to guide mitigation under the Endangered Species Act,[2] such as: a system to track required mitigation measures, and monitoring; guidance and tools to support

cumulative impact analysis; policy that clarifies the role of habitat mitigation under §7; and research on the ecological effectiveness of the habitat mitigation measures undertaken under the Act.

- Amendments should be considered to the now pending energy legislation to expressly require use of the mitigation protocol for planning energy projects on federal lands and in federal waters, where the approval of transmission corridors directly involve Federal agencies such as FERC, or that affect federally protected resources as a way of both protecting the environment and improving the regulatory process.
- Building on the limited experience with consultation under SAFETEA-LU, the next transportation authorization bill should expressly refer to the State Wildlife Action Plans and other regional plans, where appropriate, in the sections that deal with project-level evaluation, and should expressly require that the mitigation protocol be employed to support the priorities in these plans.