

State Wildlife Action Plans in the Northeast

EXECUTIVE SUMMARY

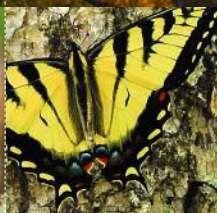


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Introduction and Study Background

This report explores the development and implementation of the Comprehensive Wildlife Conservation Strategies, also known as State Wildlife Action Plans (plans), for the nine Northeastern states of Connecticut, Maine, Massachusetts, New Jersey, New York, New Hampshire, Pennsylvania, Rhode Island, and Vermont. As part of a study funded by the National Council for Science and the Environment's Wildlife Habitat Policy Research Program, eight universities conducted research on development and implementation of all U.S. plans. During 2007–2008, a team of nine interdisciplinary graduate students at the University of Michigan School of Natural Resources and Environment investigated plan development and implementation in nine states in the Northeast United States. This report includes the team's findings of state wildlife conservation activities, emerging conservation priorities, new conservation approaches and tools, and examples of current projects that demonstrate promising directions for accelerating habitat conservation. More details can be found in the full-length version of this report, *State Wildlife Action Plans in the Northeast: A Regional Synthesis*, available online at <http://www.snre.umich.edu/ecomgt/swap>.





What are the State Wildlife Action Plans?

In 2001, Congress required states and territories to develop a CWCS in order to continue qualifying for federal State Wildlife Grant funds. Each plan was required to include the following eight common elements:

- ▶ Distribution and abundance of wildlife species,
- ▶ Locations and condition of key habitats and community types,
- ▶ Wildlife and habitat threats,
- ▶ Conservation actions to address these threats,
- ▶ Plans for monitoring species, habitats, and the effectiveness of conservation actions,
- ▶ Plans for review and adaptive management of the strategy,
- ▶ Plans to coordinate strategy development, implementation, and review with federal, state, local agencies and Indian tribes, and
- ▶ Opportunities for broad public participation in plan development and implementation.

While some states approached plan development as an exercise in articulating broad goals and objectives for protecting state species and habitats, others developed more specific action plans with prioritized short-term and long-term actions.

Plan Development



Major Stakeholders and Enforcement Mechanisms

States employed a variety of formal mechanisms to engage non-lead agency partners in plan development.

These mechanisms can be distilled into the following five categories: contracting with partners, the inclusion of partners on steering or technical committees, partner meetings, review and comment periods, and surveys. While methods varied from state to state, the most frequently used mechanisms were partner meetings of varying levels of formality, engagement of partners on technical committees, and public review-and-comment periods. Information and data sharing also occurred at some level in every state.

A wide variety of stakeholders were engaged through these processes. The majority of states engaged federal partners, non-lead agency employees, and representatives of non-governmental organizations. To a lesser extent, local decision-makers and agency employees from other states were also engaged, though the former were included in only a few states, and the latter were engaged only informally.

Given its congressionally mandated role as the reviewer of all plans, the U.S. Fish and Wildlife Service proved the most frequently cited federal partner in the development of the Northeastern strategies. At the state level, interagency collaboration most often took place between the lead agency and other agencies with jurisdiction over parks and recreation, environmental regulation, natural area and heritage conservation, and planning.

The non-governmental organization (NGO) partners most commonly engaged in plan development include the Nature Conservancy (TNC), National Audubon and independent state Audubon offices, academic institutions and extension offices, and large state-based conservation organizations and coalitions. In five states (Maine, New Hampshire, Vermont, Rhode Island, and New Jersey), TNC was identified as a top collaborator, while independent state or national chapters of the Audubon Society were identified as such by four state agencies (Maine, New Hampshire, Vermont, and New Jersey).

Most agency interviewees did not report the formation of significant new partnerships through the development of the plans, though agency employees from Rhode Island and New York agencies were exceptions. At least one agency official expressed regret over the lack of new or non-traditional partners engaged during the process. Similarly, in some states where local governments were not significantly engaged in preparing the plan, interviewees felt this was a shortcoming of the development process.



Partner Satisfaction with Engagement

Non-agency partners interviewed for this study expressed widely differing levels of satisfaction with their state's

engagement process, sometimes even within a single state. At least one interviewed partner in New Hampshire, Maine, Rhode Island, and Vermont expressed satisfaction with the level of collaboration employed by their state agency in developing its plan. Most praise was directed at the level of inclusiveness that was achieved or attempted by the given state wildlife agency.

At least one interviewed partner in Maine, New York, and New Jersey specifically expressed some level of disappointment in his or her state's engagement process. The Maine and New Jersey partners suggested that earlier and more diverse opportunities for engagement would have been beneficial.

SGCN Selection and Habitat Classification

The International Association of Fish and Wildlife Agencies (now AFWA) provided state wildlife coordinators with resources to aid in the development of state Species of Greatest Conservation Need (SGCN) lists. Planning methods and selection processes to identify species of greatest conservation need varied between states, resulting in a range in the number of SGCN selected. The variation in final SGCN lists among states of similar size, terrain, and habitats counts could be attributed to differences in species selection processes, as well as differences in the magnitude of threats within particular states. This variation may challenge future regional or national syntheses or planning efforts.

States applied a variety of classification systems to describe different habitat types. Most appropriated adaptations of existing regional and state systems. In a 2003 memorandum, the IAFWA Ecological Frameworks sub-workgroup suggested that states use the Bailey/USFS Ecological Units classification system as the ecological



platform for plan organization. While no state in the Northeast used only the Bailey/USFS frameworks in creating their classification systems, several states consulted multiple frameworks, Bailey/USFS among them.

The selection of SGCN resulted in the creation of new conservation tools or the revision of existing conservation tools in four states. New York assembled a new SGCN database. In New Hampshire, the SGCN selection process initiated a complete review of the state's threatened and endangered species list, which is presently being revised as a result of this exercise. Five states did not develop new tools during the planning process. For Maine, Massachusetts, and New Jersey, the plan was based almost entirely on existing programs.



Northeast Regional Threats

All of the nine Northeastern states list habitat loss, degradation, and fragmentation due to anthropogenic activities as major threats to Species of Greatest Conservation Need within their borders. This is consistent with previous studies of threats to endangered species in the United States. Other frequently cited anthropogenic influences leading to habitat loss and degradation include incompatible land use practices, and pollution and sedimentation.

Competitive exclusion of native species by invasive exotic species constitutes the only threat besides habitat loss and fragmentation that was mentioned in all state plans. According to a representative of the New York wildlife agency, "There's constantly the next invasive coming along." In interviews, two state representatives noted the presence of Didymo (*Didymosphenia geminata*), a microscopic freshwater diatom, as one emerging invasive of concern.

Six state plans mention climate change as a threat to wildlife. States generally noted the fact that climate change threats are too large for one state to handle by itself, and will consequently require regional and global action. In interviews, several states noted an increased political emphasis on climate change and concern for negative impacts on bird species from wind power, one of the mitigation methods becoming popular in the Northeast.

States obtained their data about wildlife threats through a variety of different methods, including consultation of in-house experts, external experts from non-governmental organizations and academia, existing local and regional conservation plans, and state natural heritage programs. No state in the region prioritized threats at the state level, but three states did so at smaller scales. Other states listed categories of general threats but then did not prioritize those threats.



Classifying Actions and Identifying Priorities

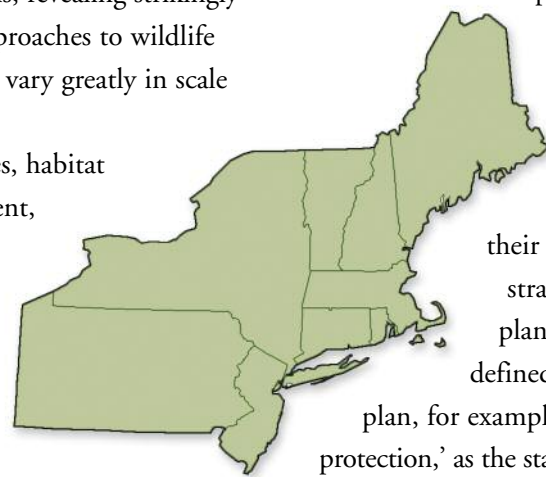
Every state's plan presents a series of conservation meta-strategies identified as most appropriate in addressing common threats to wildlife across the state. In order to introduce, communicate, and organize the hundreds of actions recommended for implementation statewide, many states have developed and presented action categories, or action taxonomies, as part of their plans. In other states, these meta-strategies are more akin to statewide conservation goals, revealing strikingly similar conservation needs and approaches to wildlife conservation. Often, listed actions vary greatly in scale and specificity.

Among the Northeastern states, habitat protection, surveying and assessment, conservation education, and continued conservation planning are the most common conservation strategies recommended to address both statewide threats and threats to specific habitats and species. Specific actions to expand what is known of species' biology and habitat requirements, as well as the geographic distribution of species and habitat, figure most prominently in the region's list of conservation needs. At the same time, according to state plans, most proposed conservation work will support protection of wildlife at the habitat level rather than target protection of individual species.

Linking Threats to Action and Establishing Priorities

Most Northeast plans articulate, or in some way illustrate, the connection between proposed conserva-

tion actions and the threats they seek to combat. However, five of the Northeastern states under study do not systematically associate actions with the threats they are suited to address. In the case of Pennsylvania, this omission has resulted in a disconnection between the actions designated as high priority in plan implementation and the threats of most immediate concern. And despite the acknowledgement by many states that partnership and collaboration is critical to the successful implementation of conservation actions, six of the nine states under study do not consistently identify



potential lead or partner agencies responsible for implementing specific actions.

The majority of plans for the Northeastern states apply some degree of prioritization to their assessment of plan actions or strategies. In at least two of the plans, implementation priorities are defined in broad terms. Massachusetts' plan, for example, identifies 'proactive habitat protection,' as the state's priority conservation strategy. At a slightly finer scale, Maine's plan identifies the two highest priority conservation super strategies for each SGCN within the primary habitat in which they occur.

Other states, such as Vermont and New Jersey, make an effort to prioritize among more discrete actions or conservation approaches. Assigning 'high priority' to multiple conservation actions, as these plans do, may provide useful guidance to organizations with a narrow, strategic focus. Moreover, doing so may often be politically necessary. However, this approach may not define a salient scope of action to direct efficient conservation at the state level or in the context of limited resources.

GIS and Mapping

Congress required all plans to identify and describe SGCN habitat requirements, location and condition of key habitats, threats, research needs, and conservation actions. States in the Northeastern region met these directives spatially, non-spatially, or by piecing together a mix of organizational methods.

Of the nine states in the Northeastern region, nearly all states included some kind of map, figure, or graphic. The usefulness and organization of these visuals, however, varied widely. New Jersey and New Hampshire possess the most well-developed Geographic Information Systems. These systems continue to evolve. Additionally, coordinators in both of these states have made data accessible to the public. Perhaps most importantly, these systems have received praise from stakeholders – the strength of their GIS have made New Jersey's and New Hampshire's plans relevant and useable in the eyes of state conservation communities.

Maine, Rhode Island, and Massachusetts include GIS in their plans, but their projects are either still in development, not fully integrated into the plans, or the states simply don't have the funding, resources, or interest in developing the GIS to the same extent as New Hampshire and New Jersey. While stakeholders have praised these efforts, they and the coordinators recognize that the projects could be taken further.

New York, Pennsylvania, Vermont, and Connecticut either lack GIS projects related to their plans, or the projects are minimal in output. Pennsylvania's state coordinators say that they decided not to create maps or priority conservation areas, in part, because of the difficulty in distinguishing one priority area from another. Pennsylvania relies on the mapping expertise of partners like the Nature Conservancy for spatial data.

Challenges to developing Geographic Information Systems can be clustered into three general areas. The first is the difficulty in spatially defining priority species and habitats. Second, prioritization is also inhibited by the difficulty in narrowing focus areas, which, in turn, is due to both a desire to retain flexibility and a fear of excluding potential partners. A third, oft-cited barrier to developing GIS projects was the strength of property rights groups.

Plan Monitoring and Review

Only New Hampshire and Connecticut have begun to track plan-based actions and outcomes to assess plan progress. New Hampshire coordinators developed a comprehensive spreadsheet with a listing of all priorities, time frames to achieve those priorities, and steps completed. Pennsylvania is currently developing a similar excel-based database to track progress. For 2008, the New Jersey coordinator intends to set up a formal implementation tracking mechanism, which she hopes will be an interactive spatial database where users can enter information, learn about other projects, and adapt to other successes and failures.

States that included "broad stroke" monitoring strategies in their plans lack the rigor of enumerated institutional controls that could provide a more effective structure to assess success. For example, New Jersey outlines monitoring strategies on a state-wide level and for each conservation zone. Statewide monitoring objectives can be as broad as "compare new survey results to previous surveys to assess trends in abundance, distribution, and habitat use."

Developments Between 2005-2007

How Did the Plans Transform State Wildlife Management in the Northeast?



For each Northeast state, the plan serves as the first agency-created, statewide, comprehensive wildlife plan that incorporates game, non-game, terrestrial, wetland, freshwater, marine, listed and unlisted species, and their habitats. In Connecticut, New Hampshire, New York, Pennsylvania, Rhode Island, and Vermont, the plan was the first state-wide non-game species plan conducted. While, Maine, Massachusetts, and New Jersey had pre-existing habitat-based plans, they failed to cover all the diversity of state species. Therefore, to some extent, the plans necessarily broadened the scope of wildlife conservation across all Northeast states.

Since plan development, all nine Northeast states have realized a shift in their conservation approach. State agencies that saw the most significant change used plan development as a catalyst to cultivate new resources, approaches, or partnerships. As a result of its plan development, New York is moving toward a more decentralized wildlife approach, hiring a biologist to coordinate plan implementation for each of the state's ten major watersheds. New Hampshire, arguably the Northeast state with the most transformed wildlife conservation approach, compiled data that tripled the total number of records in the wildlife occurrence database, developed new metrics for classifying aquatic habitat, updated wildlife database software, and created the first publicly available statewide habitat location maps during the plan development process.

Although the plans expanded the scope of wildlife conservation in each Northeast state, states with existing habitat-focused statewide conservation management were less likely to embark on new approaches as result of the plan development process and were less likely to attribute changing approaches directly to plan development. In New Jersey, Maine, and Massachusetts, plans were heavily built around established programs. New Jersey's plan drew from existing data sources, including the spatially-based Landscape Project. Maine relied on existing information and programs as the cornerstone of their plan, drawing on the Beginning with Habitat program. Similarly, Massachusetts's plan was based primarily on two existing programs: BioMap and Living Waters.

Ultimately, the changes in funding associated with plans may have the most transformative effect for on-the-ground conservation. In addition to ensuring continued eligibility for State Wildlife Grant allocations, access to State General Funds has improved as a result of the plans for certain states agency. The New Hampshire wildlife agency received \$87,000 of state general fund money as a match for SWG funds in FY 2008. Private funds also offer incentives for states to clearly define and articulate their planning approach and strategies as part of the action plans.

Implementation Challenges



In the two years since the plans were published, challenges inhibiting the speed and extent of implementation have been identified. Agencies in all states in the Northeast region

acknowledged lack of adequate funding as a major challenge to carrying out the actions within the plans. Persistent budget crises and general economic problems have limited many states in their ability to generate additional public funding at the state level, and they have constrained agency action in a number of ways. This challenge of limited funding has been compounded by the recent change in state match requirements from a 1:3 to a 1:1 state/federal match requirement for SWG funds. Limited staff capacity and state hiring freezes also constitute significant challenges to implementation, leaving several state agencies overextended with regard to plan implementation.

In addition to funding and staffing challenges, state agencies and NGOs face difficulties in communicating and coordinating activities with stakeholders and communities. New Jersey, for instance, has over five hundred municipalities and one hundred land trusts with which the state agency must try to coordinate work. As a compounding factor, many stakeholders find the extensive and dense nature of the plans—several being over one thousand pages long—to be intimidating. This has created further challenges for agency staff in communicating with potential partners.

External Political and Social Changes

Despite a lack of control over state political and social changes, these external influences can significantly impact wildlife management and agency operations. Two states noted that changes in state administration have had positive impacts when incoming governors

placed a greater emphasis on wildlife and land management issues. These larger changes, however, can also impact agencies negatively. A recent state government fraud scandal in Connecticut has resulted in new regulations making it harder to hire contract employees.

As with political changes, social movements exert significant impact on the success of plan implementation. An agency representative in Pennsylvania noted that increased public awareness and concern over climate change may increase grassroots support for plan implementation. In other states, however, landowner rights groups have opposed mapping projects, which are essential for effective plan implementation.

Changes within Agencies

Creation of the plans and challenges associated with plan implementation have demonstrated the need for a variety of changes within agencies to continue to conserve wildlife within the Northeast states. In many cases, these changes are evident and feasible, while in others external barriers have inhibited the agencies' ability to enact the necessary changes.

Many states identified the need for organizational changes and consequentially have been making significant progress in this area. Shifts in agency strategy from an exclusive focus on single species management or game management to a broader habitat-based management scheme were viewed as critical needs in many states, and progress has been made on this front.

“Our fish and wildlife department, like many, are kind of at the transition stage from the single species game management and a broader focus on habitat. The action plan has done a lot to bring us all on the same page of acknowledging that habitat is key,” said an agency representative in Vermont.



Innovative Local Outreach: Vermont's Community Wildlife Program

Vermont's Community Wildlife Program has been hailed as a success by Vermont Fish and Wildlife Department staff and numerous plan stakeholders. The program is designed to help towns, municipalities, and regional planning agencies better identify and conserve local habitat.

To administer the program, the agency hired a biologist to provide technical support for towns interested in planning for wildlife. The biologist helps the towns identify and map wildlife resources and helps to develop planning tools for stronger



Massachusetts Division of Fisheries and Wildlife Staff

wildlife protection. As a result of the project, the agency has been able to successfully educate and inform municipalities about the plan and the agency's priorities. Outreach under this program has also served as an important point of entry into local communities for other programs and organizations that provide technical assistance to private landowners, including Vermont Audubon and the state Landowner Incentive Program.



In addition, states noted an increase in collaboration and transparency, both between divisions within wildlife management agencies and with outside agencies and organizations. These changes reflect recognition of the vast scope of conservation needs as well as the inter-relationships between subsets of species and habitats.

There has also been an increased awareness of the need for adequate staffing for plan implementation, as many state agencies felt that additional staff would be required for successful implementation. Half of the states surveyed were successful in adding staff or in shifting the responsibilities of current staff to address issues identified for plan implementation. Significantly, many of the states adding staff have focused on outreach positions and have demonstrated the need for increased public participation in conservation efforts.

SWG funds have been among the most significant sources of funding for plan implementation: eight of the states surveyed apply these funds directly to implementing plan actions; seven states spend the funding internally to support conservation action; and two states provide funding for conservation partners to implement actions identified in the plans. A shift toward increased public access to SWG funding, either through competitive grants for SWG funds or through increased transparency of funding decisions, is also becoming a more important theme in the Northeast.

Changes in Partner Organizations

In the two years following the publication of the plans, early examples of the impact of the plans on partner organizations emerged. In interviews conducted in the fall of 2007, some organizations discussed orienting their work to the priorities outlined in the plans. A

Vermont stakeholder partially attributed his organization's sharpened focus on wildlife conservation to the priorities detailed in the plan. "In some ways, there was a big change in our work here before the plan came out, but it does go along with the kind of thinking that went into the plan," he said.

While there is only limited evidence of outright staffing changes or new funding priorities, the plans have helped increase the level and amount of communication between relevant parties. For example, a Massachusetts stakeholder reported that the plan has improved relationships and increased communication between the non-profits and the state. The stakeholder specifically cited his organization's efforts to develop a relationship with the state to help implement the actions identified in the plan.

Very few of the interviewed non-agency organizations reported making staffing changes directly on account of the plans. A representative of a New York NGO stated that the NGO hired a wildlife ecologist to oversee its grassland bird program, but noted that while this staffing change is closely related to the plan, the decision was made prior to its publication.

The plans have served as a useful tool for seeking funds for wildlife management. One Massachusetts' NGO representative said that his organization has used the plan to justify the need for a large environmental bond from the state legislature. Other groups, including one Connecticut NGO, report success in using the plan as a basis for private grant funding. As a representative of a New Hampshire NGO described, "Every proposal that we put out for funding talks about the [plan], talks about the info we've found there, and makes that case. It's a very powerful foundation."

BEFORE



AFTER



These before-and-after photos of the Maple Hill Farm in Hardwick, Massachusetts illustrate restoration work initiated to reclaim agricultural grasslands and re-establish connectivity in fragmented landscapes. After the centuries-old dairy operations at the farm were discontinued, the owners of Maple Hill Farm spent years battling the intrusion of invasive species such as multiflora rose in the retired pastureland. In 2004, the property owners began working with the Massachusetts Department of Fish and Wildlife's Landowner Incentive Program to clear the invasives and re-establish contiguous grassland and early successional habitat for declining grassland species.

The Landowner Incentive Program (LIP) is a federally funded, state-administered conservation and restoration program that has become a key tool for collaborative implementation of State Wildlife Action Plan strategies on privately owned lands. In Massachusetts, for example, potential LIP partnerships and projects are evaluated using the Massachusetts Comprehensive Wildlife Conservation Strategy.

While the next phase of work is not scheduled to begin until July 2008, the project has already been extremely successful according to a representative of the Massachusetts Division of Fish and Wildlife. Since work began, bobolinks, American woodcocks, snipes, upland sandpipers, meadowlarks, wood turtles, spotted turtles, and coveys of partridges have returned to the Farm.

Photos: Massachusetts Division of Fisheries and Wildlife Staff

How the Plan is Being Used



Implementation of the Plan by Stakeholders

The degree to which non-agency groups utilize the plan seems influenced by the level of outreach and engagement by the state agency. For example, the New Hampshire wildlife agency hosted a wildlife summit where it brought together stakeholders from around the state to help prioritize and rank implementation strategies. Through the process, the agency and its partners identified top implementation strategies, including expected year of initiation and overall project duration. New Hampshire directly engaged organizations like TNC, the Audubon Society of New Hampshire, and other partners to lead projects identified in the plan.

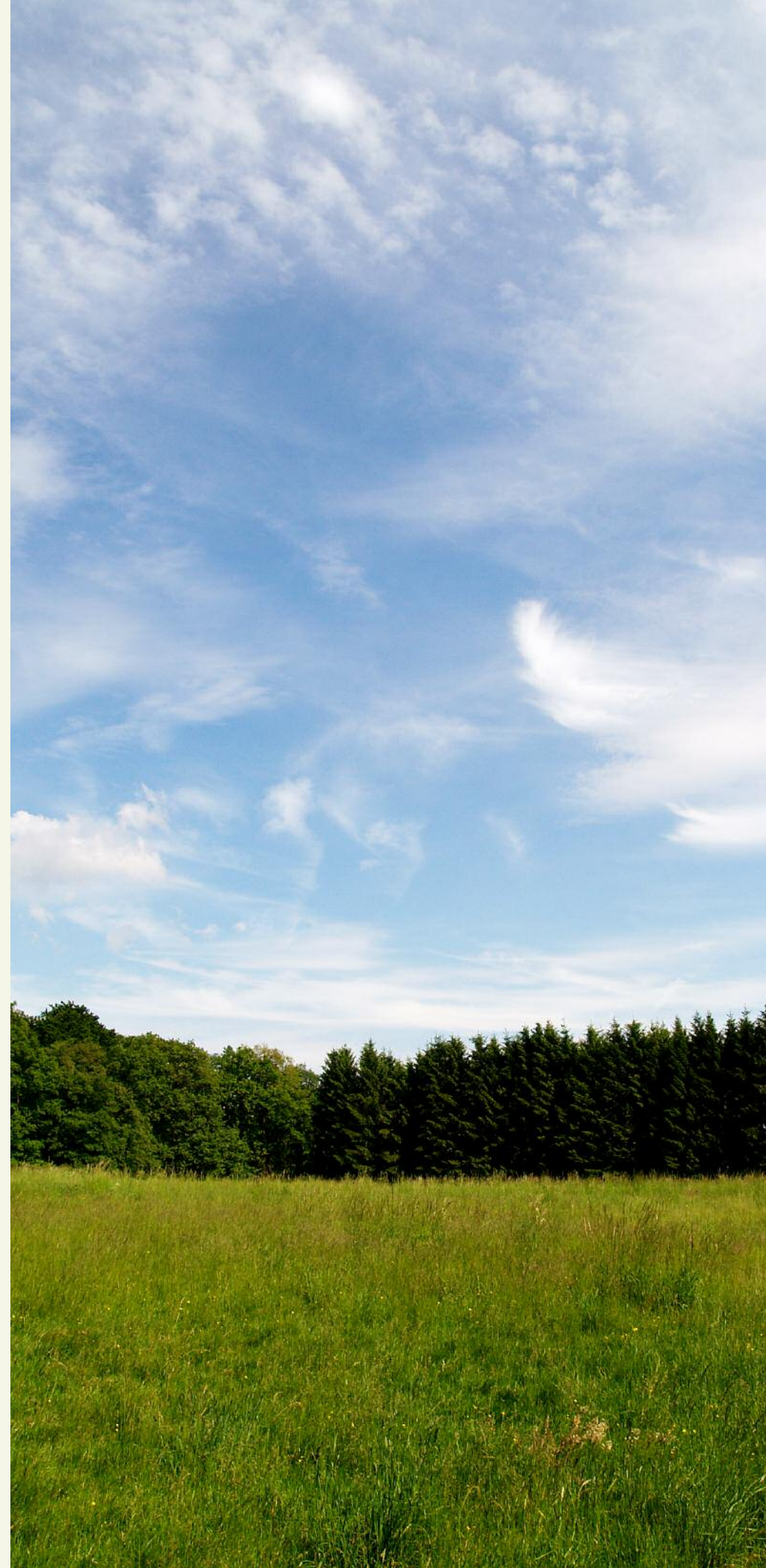


C. Alexander

On the other end of the spectrum are Massachusetts and Rhode Island. In Massachusetts, there was little outreach or engagement by the state agency during the planning process, yet non-agency groups have seemingly embraced the plan for both grants and for programs/project guidance and implementation. Rhode Island also, with the exception of TNC, only minimally engaged non-agency organizations in planning. Unlike Massachusetts, however, there seems to be little evidence of non-agency groups using the plan.

The clarity and accessibility of the documents appears to be another determinant of how non-agency groups utilize the plans. In New Jersey, for instance, one NGO representative observed that the plan does not tell people how to participate or show them how they fit into the “big picture” of conservation in the state.

In other states, more subtle changes are underway amongst the non-agency groups. In Vermont, for instance, the plan facilitated the creation of a common dialect for discussing wildlife conservation. Conservationists throughout the state have begun to adopt terms such as ‘Species of Greatest Conservation Need’ and ‘habitat fragmentation’. A NRCS biologist also used Vermont’s plan to develop the state’s Wildlife Habitat Incentives Program (WHIP) management plan, folding significant portions of the plan directly into WHIP’s statewide strategy.



Success in Collaboration and Leveraging Funds: Connecticut’s Grassland Habitat Conservation Initiative

Grassland habitats, which are typically located in areas subject to development pressure, are being lost at a more rapid rate than any of Connecticut’s other eleven habitat types. Under the Connecticut Grassland Habitat Conservation Initiative, the Connecticut wildlife agency is teaming up with a wide variety of federal and state agencies and conservation and agricultural groups in an effort to inventory existing grassland habitat and the array of wildlife species dependent on it. One NGO stake-



F. Brown

holder has called the level of collaboration under the program “amazing.” In addition to the successful use of collaboration, the Grassland Initiative is an excellent example of how the plan has been used to leverage new funds for wildlife conservation. In a resounding success for conservation in the state, the Connecticut state legislature voted to allocate nearly \$8 million for the initiative, to be spent on inventorying and acquisition. The initiative is providing tangible benefits for the state’s conservation efforts. Approximately one hundred-fifty sites have been studied so far, and a number of acquisitions are currently in the discussion phase. Several years ago, there was very little data available about grasslands in Connecticut. In pursuing the grasslands initiative, Connecticut is developing a framework for preserving other types of habitats through the utilization of this successful research and collaboration methodology.

Regional Collaboration

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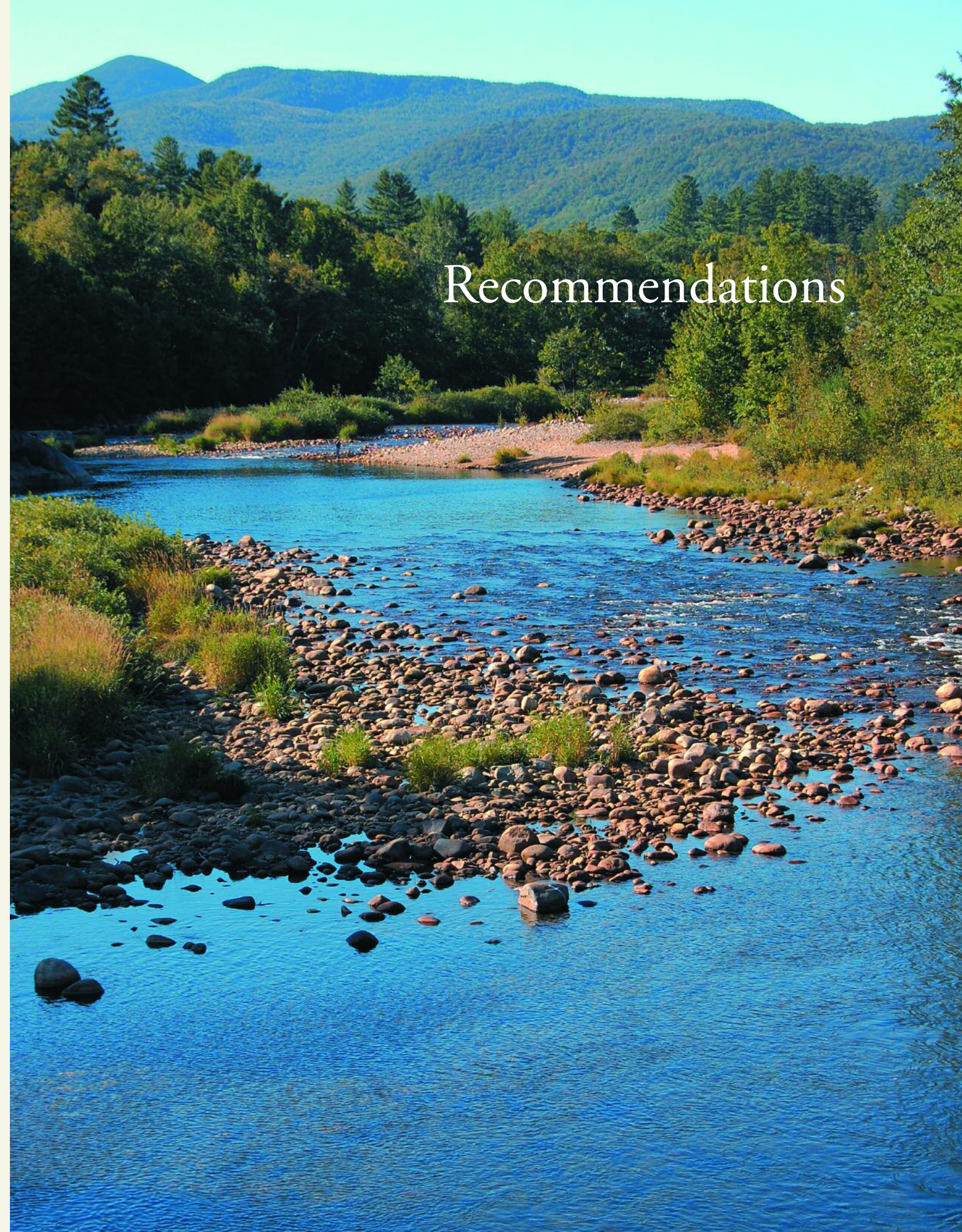
In the long-term, the plans are expected to positively impact regional conservation planning. Despite the insular nature of the plans, states and regional agencies recognized that the most effective level to address many of the goals and needs identified in the plans was at a landscape scale. In response, the Northeast Association of Fish and Wildlife Agencies created the Regional Conservation Needs (RCN) Grants Program to identify priorities for interstate collaboration, and then fund selected projects that directly respond to those goals.



Representatives of the Northeast region's state wildlife agencies first met in March 2006 to discuss developing regional projects. At the meeting, participants acknowledged the difficulty of requesting or earmarking funds for cross-border collaborative projects from individual state governments. In order to avoid the bureaucratic challenge of allocating state funds for regional projects, the states agreed to use four percent of their SWG funds to support regional efforts. The result of the meeting was the formation of a Regional Conservation Needs Grant program intended to fund projects that address regional, landscape-level issues identified in the plans.

The creation of the plans has spurred regional collaboration to an extent never before attempted by the Northeastern states. No other region in the country has yet to create such a group as the RNC partnership, with its cost-sharing and regionally inclusive frameworks for monitoring and mapping, nor have they been able to make headway on any of these issues at a regional level. With their federal and non-governmental partners, the Northeast state agencies are can begin approaching conservation at a level where political boundaries are not barriers to wildlife management. A Massachusetts agency representative states regional collaboration and the RCN program "... absolutely wouldn't have happened without ... completing these plans."

Recommendations



Recommendations



Through analyzing the findings of our research, we have identified a number of recommendations that may improve the usefulness of future iterations of the State Wildlife Action

Plans and may also improve success in current implementation of the plans. The following is a brief description of each of our recommendations. More information on each recommendation, including examples from various states, can be found in the full-length version of this report, *State Wildlife Action Plans in the Northeast: A Regional Synthesis*, available online at <http://www.snre.umich.edu/ecomgt/swap>.

Part I: Recommendations for Future Plan Development

1.) Create action-driven content

Link actions to threats

The plans can provide a more clear direction for potential NGO, private, and state actors in the implementation process by linking actions to threats.

Prioritize where feasible

In situations where it is feasible to prioritize actions in the plans, doing so helps to guide the user—who likely has limited resources—towards the most pressing conservation actions. Prioritizing actions in the plan also demonstrates to potential funders that the state has a clear strategy and has taken steps to ensure that resources are dedicated in the most efficient manner.



C. Blodgett

2.) Make stakeholder engagement meaningful

Incorporate partners early in the process and allow them to influence content

A study conducted in association with this regional synthesis found that the timing of partner engagement and the influence that participants had over the content in the plans were the two factors most strongly associated with participants' satisfaction with the stakeholder engagement process in plan development. Including partners at an early stage in development of future iterations of the plan, as well as giving them a say in plan content, can help to strengthen the relationship between the state and potential implementation partners as well as provide potential partners with a sense of ownership in the plan.

Engage non-traditional partners

Developing non-traditional partnerships can bring in new resources and fresh ideas to wildlife conservation in a state. Including partners from fields such as land development and planning has the potential to create a plan that is comprehensive and feasible by including the views of players shaping the physical landscape.

Engage at the local level if you want to have local action

Effective biodiversity protection in the United States is dependent on linking local land use planning with larger-scale conservation goals. Where inviting specific local governments into the planning effort proves impractical, working with associations of governments or planners, such as the National Association of Counties or the state chapters of the American Planning Association, would be an effective method to incorporate local interests in plan development.

Make plans truly habitat-oriented

Managing wildlife conservation through a habitat-based approach may enable states to stretch resources by affecting several priority species simultaneously through each habitat-based action. Additionally, though SWG funding has not been made available for plant conservation, utilizing a habitat-based approach also allows for the protection of plants as a consequence of habitat-based species conservation efforts.

3.) Standardize the plans across states

Use a common language

To date, the lack of standard classification language has made interstate collaborations difficult. By using a common classification among all plans, or at least at the regional level, desirable interstate collaborations for wildlife conservation may become more feasible. In 2003, the IAFWA Ecological Frameworks sub-workgroup suggested that states use the Bailey/USFS Ecological Units classification system as the ecological platform for plan organization. In future iterations of the plans, agencies may wish to consider employing this system in order to ensure standardization in classifications across the region.

Standardize format and improve organization

While some plans exhibit excellent organization and layout, others are more difficult to navigate, leading to confusion and wasted time. Creating a standard format for future iterations of the plans may also lead to improved usability and ease of comparison between states. This could additionally lend the plans more easily to interstate collaborations.



C. Alexander

4.) Design with users in mind

Users' guides: A Vermont example

A User's Guide to Vermont's Wildlife Action Plan, included in Vermont's Wildlife Action Plan, serves two purposes for a reader of the plan: (1) conveying a series of broad suggestions which set the context for effective use of the plan and (2) providing examples of ways to use the plan and directing users to the appropriate section(s) of the plan.



Short fact sheets

Short fact sheets that summarize the findings of each of the eight elements are useful for plan users at other agencies or conservation NGOs hoping

to quickly understand the overall plan contents without sifting through hundreds of pages of text. These summaries essentially serve as white papers that make the most significant findings of the plan accessible to audiences in just a few pages.

Create mini plans relevant to a variety of scales

Mini plans disperse information in a more user-friendly format. For example, New Jersey's plan is divided into three main parts. The second part is divided into five ecoregions. Each of these ecoregion sections can be thought of as a mini plan with location-specific threats and actions that interested parties can find and utilize without wading through an entire plan.

Hire a designer

Having a professional handle the design of the final plan document can ensure that the document is more inviting and accessible to the general reader, and it may lead to increased utilization of the wealth of information amassed in the state plans. In New Hampshire, where a designer was hired, stakeholders found the plan to be more “well laid out and easy to navigate” than in other states.

5.) Put wildlife conservation “on the map”

Utilize GIS for planning

The states in the Northeastern region that have put resources towards development of comprehensive mapping systems have benefited from improved monitoring and assessment, communication of conservation goals to stakeholders, and spatial analysis of landscape patterns. Coordinators who feel that their state is too small to spatially prioritize the landscape GIS should look to the New Jersey Landscape Project as an exemplar project.

6.) Improve monitoring strategies

Specify benchmarks for success and programs to monitor them

Use of detailed and specific monitoring could provide a more effective structure for evaluating success, thus steering implementation resources towards the most beneficial projects in the future. New Hampshire, for example, developed a fairly comprehensive monitoring strategy that includes seven expansive state-wide objectives that provides readers and users with a more concrete understanding of how success will be measured.





Part II: Recommendations for Implementation

1.) Enhance partnerships

Collaborate with other state agencies and integrate plans where possible

Many times, separate organizations are working towards similar goals without knowledge of the others' actions or progress. Without proper communication and collaboration, such strategies result in organizations implementing similar plans working near each other, but not necessarily with each other. We encourage state agencies to collaborate with other state agencies to reduce workloads and produce better outcomes for both parties.

Engage private landowner constituencies

Given that the Northeast has such high rates of private land ownership, it is important to engage and educate the private landowner in conservation efforts. The Landowner Incentive Program (LIP), which was eliminated in the FY2008 budget, provides states with an important implementation tool to address State Wildlife Action Plan priorities by working directly with the private landowner to protect at-risk species and improve habitat. Enabling programs such as the LIP program for future private landowner engagement efforts would enhance future partnership opportunities and is encouraged.

Engage municipalities

As the primary authority for local land use decisions, towns, municipalities, and county governments play a critical role in maintaining biodiversity, habitat, and wildlife resources. Programs such as the Vermont Community Wildlife Program and the New Hampshire Fish and Game technical assistance workshops,

both of which distribute and interpret SWAP data and maps, are instrumental in assuring that wildlife priorities filter to the local municipality level.

Education and outreach

A majority of state agency staff identified misunderstandings of agency operating procedures, responsibilities, and limitations as a challenge when working with partners for implementation. By educating and communicating with potential partners upfront about agency limitations and procedures, confusion and frustration may be avoided in the implementation process.

2.) Build on success: Monitor what is being done and share successes

Utilize Implementation Databases

The Conservation Action Registry is an excellent example of a database for monitoring project implementation and success within Oregon, Washington, and Idaho. The registry allows information to be collected about implementation projects, and also makes that information accessible via the Internet to all interested parties.

3.) Leverage funding

Utilize a competitive SWG funding process

A competitive grant program offers states the ability to retain control over the final disbursement of SWG funds while also allowing the actors with the necessary technical, staffing, and resource capacities to use their abilities to further plan goals. In agencies that have the capacity to implement actions with an internal SWG process, enacting a process that makes SWG funds available to external partners can help to stretch the usefulness of each SWG dollar by matching it with external partner funds.



Train staff in grant writing and identifying funding opportunities

In many states, the challenges posed by fiscal limitations can be relieved through access to additional forms of funding. While imposing an up-front cost, hiring a staff member who can devote a significant portion of time to identifying and applying for other grants can be an effective method of leveraging additional funding. Making this investment now may result in much greater returns in the long run, as trained staff often identify previously overlooked federal and private aid opportunities and address outside funding in a comprehensive manner.

4.) Increase municipal community outreach

Hire or reassign an outreach staff member

Ensuring that at least one person's work plan requirements involve collaboration helps commit an agency to cross-scale planning. Although they have been facing a hiring freeze and have not been able to create new positions, New Hampshire reallocated the job description of one biologist position so that 80 percent of that biologist's time is devoted to technical assistance, including the sharing of state wildlife priorities with local communities.



5.) Contract out where not possible to hire

State agencies face many challenges in hiring full-time employees. Sometimes consultants are more desirable and better able to execute important projects, especially when an agency lacks personnel in an area of expertise needed for a specific project. In Connecticut, for example, the state agency hired two GIS consultants to address data gaps on forest resources for their Forest Stand GIS database project.

6.) Improve agency transparency

Of the nine Northeastern states surveyed, six states identified agency transparency as a key issue for successful implementation of wildlife management strategies. When agencies become more transparent, both with respect to management and funding decisions, NGOs develop greater confidence in the mission of the agency and the potential for collaborative efforts. Therefore, we recommend that agencies, where applicable, disclose information about how SWG funding is used towards conservation and the grants selection process.

7.) Integrate climate change into plan implementation

Opportunities may exist to utilize the climate change debate for leveraging funding for wildlife conservation. The America's Climate Security Act includes a proposal to create an adaptation fund that may benefit SWAP implementation objectives. One possible use for the newly formed state Teaming with Wildlife Coalitions may be to mobilize political support around this issue.

8.) Continue the Regional Conservation Needs Grant Program

By addressing regional conservation needs at the appropriate scale, NEAFWA will help to ensure that future interstate collaborations in the Northeast remain viable undertakings. As of October 2007, the group is completing a classification of the Northeast Region's habitats, but it has not yet begun to prioritize or map them. They aim to have the project completed by the spring of 2008. We encourage the region to continue these efforts.

Bibliography, Acknowledgements, and Authorship

BIBLIOGRAPHY

Connecticut Department of Environmental Protection (CTDEP). Connecticut's Comprehensive Wildlife Conservation Strategy (Hartford, CT: 2005).

Environmental Law Institute. Planning for Biodiversity: Authorities in State Land Use Laws. (Washington, D.C.: Environmental Law Institute, 2003).

Maine Department of Inland Fisheries and Wildlife (MDIFW). Maine's Comprehensive Wildlife Conservation Strategy (Augusta: ME: 2005).

Massachusetts Division of Fish & Wildlife Department of Fish and Game (MDFW). Commonwealth of Massachusetts 2005 Comprehensive Wildlife Conservation Strategy (Boston, MA: 2005).

New Jersey Division of Fish & Wildlife Endangered and Nongame Species Program (NJDFW). New Jersey Wildlife Action Plan (Trenton, NJ: 2005).

New Hampshire Fish and Game Department Nongame and Endangered Wildlife Program (NHFG). New Hampshire Wildlife Action Plan (Concord, NH: 2005).

New York Department of Environmental Conservation (NYDEC). New York Comprehensive Wildlife Conservation Strategy (Albany, NY: 2005).

Northeast Association of Fish and Wildlife Agencies, "NEAFWA Regional Conservation Needs," Northeast Regional Conservation Needs Grant Program, <http://www.rcngrants.org/index.shtml>.

Pennsylvania Game Commission (PGC), and Pennsylvania Game and Boat Commission (PGBC). Pennsylvania Comprehensive Wildlife Conservation Strategy (Harrisburg, PA: 2005).

Rhode Island Department of Environmental Management Division of Fish and Wildlife (RIDEM). Rhode Island's Comprehensive Wildlife Conservation Strategy (Wakefield, RI: 2005).

U.S. Census Bureau. "Census Regions and Divisions of the United States." Population Estimates Census 2006 (Washington, DC: U.S. Census Bureau 2006).

Vermont Fish and Wildlife Department (VFW). Vermont's Wildlife Action Plan (Waterbury, VT: 2005).

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The **Ecosystem Management Initiative** promotes landscape-scale conservation and sustainable natural resource management. Through short courses, dialogues, graduate student training and action-oriented research, the Initiative works to advance the knowledge and skills necessary for collaborative, adaptive ecosystem management. Over the last ten years, EMI has evaluated the progress of a large set of collaborative efforts in order to identify best practices, policy recommendations and tools that enable individuals and organizations to become more effective at managing resources and building sustainable communities.

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