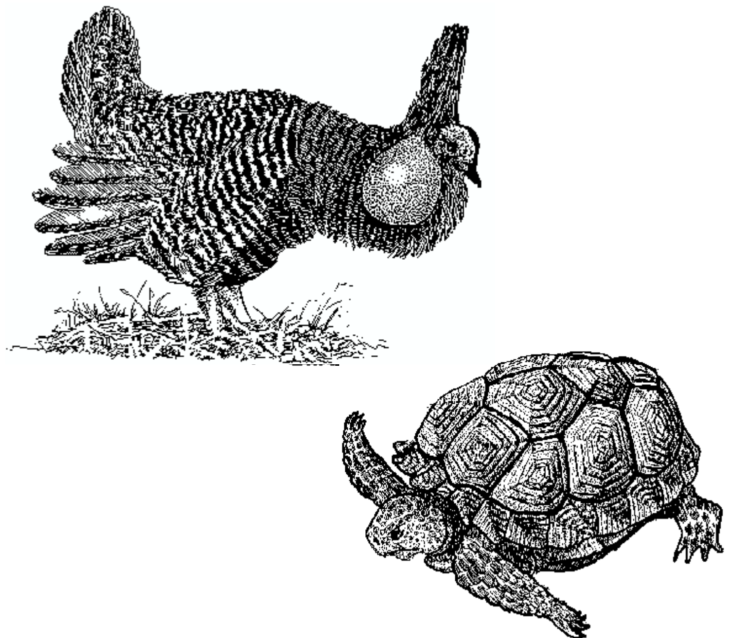
Using State Wildlife Action Plans to Achieve Your Conservation Goals through Collaboration



May 2009

HDRU Series No. 09-5

Prepared by:

T. Bruce Lauber, Richard C. Stedman, Daniel J. Decker, and Barbara A. Knuth
Human Dimensions Research Unit
Department of Natural Resources
Cornell University

Acknowledgements

The work described in this report was funded by the Wildlife Habitat Policy Research Program of the National Council for Science and the Environment. The funding originated in a grant from the Doris Duke Charitable Foundation.

Table of Contents

Acknowledgements i
Table of Contents ii
Conservation and the State Wildlife Action Plans 1
Collaborative SWAP Implementation: The Process 2
Practical Guidance 4
First Things First: What do you want to accomplish? 4
Land Protection: The Cumberland Plateau Land Deal 5
Habitat Restoration: The Raritan Piedmont Wildlife Habitat Partnership 5
Species Restoration: Broad River Freshwater Mussel Project 5
Funding: Montana Land Trust-Innkeepers Partnership 5
Labor: Habitat Management in Michigan 6
Information: Greater Uwharries Conservation Partnership 6
Agreement: Natural Community Conservation Planning Program 6
Finding the Best Fit for You 6
Ingredients for Success 7
The Collaborative Element 10
"Catalyzing" Your Effort 14
Final Advice: Tailoring Your Effort to Your Purposes 18
Further Reading 21

Conservation and the State Wildlife Action Plans

Fish and wildlife conservation faces many obstacles. Funding is limited. Fish and wildlife managers have to juggle numerous competing responsibilities. Conservation work often requires the consent and cooperation of landowners or government agencies that have priorities besides conservation. Addressing these challenges frequently requires collaboration – collaboration which may involve multiple government agencies, nongovernmental organizations, and private landowners. Consequently, the federal government has been working to encourage more collaborative and forward-looking conservation of fish and wildlife at the state level.

As a condition for receiving federal State Wildlife Grant funding, the U.S. Congress required each state and territory to develop a State Wildlife Action Plan (SWAP). Since 2001, all states and territories have had these plans approved. Instead of focusing on the management of species that have been listed as endangered or threatened, the SWAPs are intended to avoid the need for these listings. By working to keep common species common and addressing the needs of rare and declining species before it's too late, the SWAPs help to avoid both the high risks and the high costs (financial *and* social) of managing endangered and threatened species.

The SWAPs were designed to be comprehensive. They include a wide-ranging assessment of the status of species and habitats, identification of the key threats that they face, and descriptions of actions needed to conserve them. Collectively, they provide a blueprint for conserving fish and wildlife, particularly those at greatest risk of becoming endangered or threatened.

SWAPs are a valuable resource for conservation practitioners of all types for several reasons.

- **SWAPs have something for everyone.** Because they were designed to be comprehensive, almost all practitioners can find the issues important to them captured in the SWAPs in one way or another.
- **SWAPs lend legitimacy.** Given that all SWAPs have been through a review and approval process, and all have been officially endorsed by their state fish and wildlife agencies, the needs and recommended actions identified therein all have a degree of support.
- **SWAPs unlock resources.** Addressing conservation needs identified in SWAPs can allow practitioners to access resources that would otherwise be unavailable. Not only does each state control State Wildlife Grant funding to support work that addresses SWAP priorities, but other organizations have specifically designated funding programs for addressing SWAP priorities. Beyond this, however, showing how proposed work can address SWAP priorities is simply one more argument practitioners can make about the importance of their work.

For these and other reasons, many practitioners tie their conservation work to SWAP priorities. This "practitioner's guide" is designed to help those who do make that work successful. As with many other types of conservation work, efforts to address SWAP priorities are difficult for practitioners who "go it alone." Given the myriad resources and multiple layers of approval demanded, many practitioners find that they have to collaborate with others to achieve their goals.

We recently (Lauber et al. 2009) studied a wide variety of collaborative efforts working on SWAP priorities and have summarized the lessons learned from the most successful of these efforts. We present these here in the form of practical guidance for conservation practitioners seeking answers to questions such as: How can collaboration help you address SWAP priorities? How can you maximize the chances that your work will be a success? Who else do you need to involve? We present answers to these and other questions by describing specific examples and using practitioners' own words to summarize the lessons they have learned.

Collaborative SWAP Implementation: The Process

All conservation work is ultimately about outcomes on the ground – better quality habitat, healthier populations of fish and wildlife, and protected land. But achieving these on-the-ground outcomes is rarely straightforward. Instead, conservation is a multi-step process in which practitioners carefully develop some key ingredients (requisite conditions and capacities) so that the on-the-ground outcomes become possible to achieve. In this section, we describe these key pieces or ingredients. And we illustrate them first with a story.

After Montana developed its Comprehensive Fish and Wildlife Conservation Strategy (or "comp plan" – Montana's name for its SWAP), several actors in the conservation community wanted to do what they could to ensure that the plan led to on-the-ground conservation outcomes. These actors included the state fish and wildlife agency (Montana Fish, Wildlife and Parks) and some key nongovernmental conservation organizations.

First, they asked questions about the *legitimacy* of the comp plan. Was it comprehensive enough that it had the broad support of the conservation community in the state? Could it serve as an "umbrella" for all the conservation work that was taking place? After conducting a "situation analysis" in which more than 100 people across the state were interviewed, a meeting was organized to present tentative answers to these questions. The organizers hoped 35 to 40 people would attend. They got nearly four times that many! The situation analysis and subsequent meeting answered the question of whether the comp plan could serve as an "umbrella" for conservation work in the state with a resounding "yes." The support of the conservation community was there.

But equally important were questions about the *resources* to implement the comp plan. Conservation work takes *labor*, *funding*, and *information*. Given the tremendous breadth of the comp plan, these resources would be needed aplenty. Answers to questions about the sufficiency of resources were mixed. On the one hand, it was well recognized that Montana Fish, Wildlife and Parks could not implement the comp plan on its own:

> *It started with the recognition that the comprehensive strategy …was never going to have a chance at being implemented if only the department was implementing it. There is too much stuff that needs to happen to advance the habitat, conservation and restoration work than the department can do.*

On the other hand, it was also recognized that numerous other actors – at both the state and local levels – were in essence already working on comp plan implementation.

> *There were people in a lot of programs out there that maybe … weren't doing work under the auspices of the comp plan, but they were doing work that advanced the same goals.*

What was limiting progress on comp plan implementation was funding. It was widely acknowledged that the funding needed to address unmet conservation and restoration needs simply wasn't there. Furthermore, there was a lack of *dialogue* and *coordination* among actors working on conservation throughout the state. In effect, the right hand didn't always know what the left hand was doing; the efficiency and effectiveness of conservation work suffered as a result.

While the situation was widely recognized, it was also understood that the needs (i.e., the deficiencies in funding and communication/coordination) would be addressed only if some specific recommendations were developed.

> *They decided that they needed …to make some really specific recommendations about how to get this great comprehensive strategy down to … a local level of getting things done and actually achieving conservation goals.*

A key step was taken when Montana Fish, Wildlife and Parks cooperated with other conservation organizations to form the Montana Conservation and Restoration Partnership. This partnership includes representatives of 25 government and nongovernmental organizations, and it has been tasked with recommending ways to build capacity for comp plan implementation. Membership in the partnership is broad-based so that any recommendations produced will have *legitimacy*. The organizers have emphasized cultivation of *relationships* and *dialogue* between organizations representing diverse interests in an attempt to build *agreement* about strategies for moving forward. As of the spring of 2009, the partnership has been working together for more than a year and expects that specific action recommendations are imminent.

Although every case of collaborative SWAP implementation is unique, this case illustrates the ingredients that are common to most. Figure 1 depicts these ingredients organized into a collaborative conservation model – what we call our "Co-Conserve Model." Its components are as follows.

All collaborative SWAP implementation efforts are ultimately aiming for *conservation outcomes* (see Figure 1), including *protected land and habitat* and *improved habitat* or *larger populations* of key species. These outcomes are interrelated – protected land and habitat provides a foundation for improved habitat and larger species populations.

Conservation outcomes are achieved through *actions*. To improve habitat or bolster key species, some type of *habitat manipulation* (e.g., harvesting, mowing, burning, herbicide treatment, etc.) or *species manipulation* (translocation, captive breeding, etc.) is necessary. Protected land and habitat is typically achieved through *land acquisition and easements*.

Actions require *resources*. *Funding* and *labor* are necessary for carrying out almost all actions. And the selection and implementation of actions requires a solid *information base*. In cases where the existing information base is inadequate, it may be enhanced through research or by synthesizing and disseminating information that isn't readily available.

Conservation also depends on *enabling processes*. One of these processes is *legitimization*, or securing the necessary support or approval from those with authority or influence. Those with authority or influence may include elected or appointed government officials, influential nongovernmental organizations, landowners, or members of the public. Legitimization of a particular effort allows it to access the necessary resources for implementation.

Collaborative conservation is also enabled by the *coordination* of various actors who are working toward similar goals. Coordination involves joint decision making about how the collaborators can most efficiently use their combined funding and labor to achieve their common ends.

Finally, all collaborative conservation efforts depend on *relationships* and *dialogue*. Relationships and dialogue help to foster *agreement* about what needs to be accomplished and how it should be accomplished. This agreement can lay the foundation for the legitimization of conservation work by those with authority and influence and enables the coordination of these efforts.

Practical Guidance

Collaborative conservation is not a tidy, linear process. No recipe or formula exists that will guarantee you success. Every situation is unique. Every successful effort must be tailored to particular circumstances. So we can't provide a recipe to follow. What we can provide are guidelines to consider – a semi-structured way of evaluating the choices you have to make in conservation work. These guidelines are based on the experiences of many others who have enjoyed success in their conservation efforts.

First Things First: What do you want to accomplish?

One of the most important considerations in successful conservation is one that is also surprisingly easy to overlook – deciding what you want to accomplish. Of course, everyone involved in conservation work is ultimately hoping to improve or protect species and habitat, but, as we've pointed out, there are many pieces that have to fall into place before these on-the-ground benefits can accrue. So in some cases, practitioners work directly towards on-the-ground benefits, but in others, they have to address antecedent needs first. Funding may not be available. An understanding of the habitat needs of a species may be missing. The conservation work may be too controversial to garner widespread support from decision makers. Or the resource of concern may be under the control of individuals who are unaware of or unsympathetic to conservation needs.

In these cases, rather than working directly towards conservation on the ground, practitioners often engage in *capacity building* – laying the foundation for future conservation by conducting

research or disseminating information, developing new sources of funding or labor, or simply coming to agreement on a conservation agenda. Collaborative SWAP implementation efforts may work to achieve any of a variety of outcomes contributing to on-the-ground conservation or increased capacity. Here are a few examples that illustrate a wide range of objectives:

Land Protection: The Cumberland Plateau Land Deal

Tennessee's SWAP had identified the Northern Cumberland Plateau as a key habitat area in need of protection. When several large tracts of land became available in this area, the state of Tennessee, The Nature Conservancy, and two timber companies worked to secure a combination of fee title, conservation easements, and timber rights in this area that would ensure its protection. The resulting deal protected nearly 128,000 acres in the largest land protection deal in the area since the creation of the Great Smoky Mountains National Park. The success of this effort depended on the committed support of the Governor's office, which helped ensure that the state legislature designated $82 million in funds for this purchase. The Nature Conservancy committed $13 million to this project, which they expect to have reimbursed eventually by the U.S. Forest Service Forest Legacy Program. Lyme Timber Company and Conservation Forestry LLC spent $40 million to purchase 66,000 acres, 42,000 acres of which became protected under conservation easements.

Habitat Restoration: The Raritan Piedmont Wildlife Habitat Partnership

The Raritan Piedmont Wildlife Habitat Partnership is a collaborative effort of nearly 40 governmental and nongovernmental organizations working to manage and restore grasslands and maintain habitat connectivity in Somerset County, New Jersey. This grassroots effort was initiated by New Jersey Audubon Society and several other groups in response to growing development pressure leading to the alarming loss of grasslands. Much of the management efforts are funded by the Division of Fish and Wildlife's Landowner Incentive Program which provides funding to landowners to manage habitat on their properties for at risk species. Restoration efforts of this partnership have been funded by the Partners for Fish and Wildlife Program, the USDA Natural Resources Conservation Service, and the Conserve Wildlife Foundation of New Jersey.

Species Restoration: Broad River Freshwater Mussel Project

The South Carolina Department of Natural Resources has been working with a variety of stakeholders to bolster populations of freshwater mussels in the Broad River, a major river system in the state. A dam on the Broad River has prevented the passage of fish that serve as hosts for one life stage of the mussels. Mussel populations are present below the dam, but not above it. With the dam's license up for renewal, a number of stakeholders are involved in research that will inform dam modifications that could contribute to mussel restoration.

Funding: Montana Land Trust-Innkeepers Partnership

The Montana Association of Land Trusts is working with the Montana Innkeepers Association and the Montana Community Foundation to develop a new private funding base for land

conservation. Under this project, which would establish a new link between land trusts and businesses, the hospitality industry would publicize and raise donations from their guests for voluntary private land conservation. The land trusts would use the funding in their conservation efforts, including for priorities identified in Montana's Comprehensive Fish and Wildlife Conservation Strategy. Implementation of the initiative begins in the spring of 2009 with an initial goal of raising $1 to $1.5 million annually.

Labor: Habitat Management in Michigan

The Michigan United Conservation Clubs, the National Wildlife Federation affiliate in Michigan, built a coalition of volunteers to assist the Michigan Department of Natural Resources in management of state land. This assistance, which was prompted by a concern about the state agency being underfunded, was intended to contribute to the protection of endangered species and other management priorities.

Information: Greater Uwharries Conservation Partnership

The Uwharries region of the North Carolina Piedmont contains many areas that have been identified as important in North Carolina's SWAP. The Greater Uwharries Conservation Partnership is a coalition of organizations that is interested in conservation in the region in the face of increasing development pressure. The coalition includes state, federal, and local government agencies and nongovernmental organizations. The North Carolina Wildlife Resources Commission used State Wildlife Grant funds to designate a staff member to coordinate the Partnership's work, which has contributed significantly to its effectiveness. The Partnership has used GIS to develop spatially explicit information about threats within the region and particularly valuable areas and corridors that are in need of protection. This information is beginning to be considered by local government members of the partnership in their planning decisions.

Agreement: Natural Community Conservation Planning Program

The California Department of Fish and Game developed its Natural Community Conservation Planning program to promote multi-species conservation at a regional scale while allowing for compatible development activities. A variety of local stakeholders have been engaged in the process of developing regional plans in different parts of the state with the Department of Fish and Game and the U.S. Fish and Wildlife Service providing the necessary support and guidance.

Finding the Best Fit for You

With so many different possible objectives of conservation work, how do practitioners choose which kinds to target? There are a few key considerations. First of all, most organizations and individuals have certain long-term conservation goals that are of particular interest to them – whether it be prairie restoration, neotropical migrants, boreal forests, or any of a wide variety of others. Most practitioners become involved in efforts that fit into their areas of interest. Within such a set of interests, however, several considerations can help practitioners identify objectives that are both desirable and feasible.

- **Where does your expertise lie?** Conservation practitioners have a variety of skills. Some have expertise with restoration of particular habitat types or with particular habitat restoration techniques. Others are primarily researchers. Some understand how to secure funding. Others are skilled at coalition building. With so many needs and possibilities for conservation work, it makes sense for practitioners to focus on issues that play to their strengths.
- **Where can you get help?** This guide is about *collaborative* conservation efforts. One of the advantages of collaboration is that it makes things possible that would not otherwise be possible. By identifying where your interests overlap with those of other actors, you can be more effective. This requires some flexibility. If you are willing to bend and reshape the ends you want to achieve, you are more likely to be able to enter into a collaborative effort that will benefit both your identified needs and those of others. Similarly, being able to supplement any gaps in your expertise with the expertise of others is beneficial.
- **What is most needed?** On-the-ground outcomes are of fundamental importance to conservation work, but sometimes practitioners can get more bang-for-the-buck by focusing on capacity building first. For example, identifying lands in greatest need of protection can provide the foundation for a whole series of land acquisition efforts. Refining techniques for propagating mussels can make mussel restoration possible in multiple river systems.
- **What is possible?** As we will discuss in more detail in the next section, the Co-Conserve Model (Figure 1) identifies some of the components or ingredients that have to be in place for conservation work to be successful. If ingredients are missing, practitioners need to either know how to supply them – or they should focus their energy elsewhere.

Ingredients for Success

After you've figured out what you want to accomplish – whether it's increased capacity or on-the-ground conservation benefits – the next step is to make sure you have the necessary ingredients in place for success. We've developed a series of questions (based on our research on collaborative SWAP implementation efforts) that will help you figure out what those ingredients might be. For each outcome you hope to achieve, consider the following questions:

- **Relationships.** What organizations and individuals (both governmental and nongovernmental) might be interested in the same conservation outcomes? How strong are the relationships between these conservation interests? Do they know each other? Have they worked together? Do they trust each other?
- **Dialogue.** How adequate is the communication between these conservation interests? Do they share information about their interests and activities?
- **Agreement.** How strongly do these conservation interests agree about what needs to be accomplished? About how it needs to be accomplished?
- **Coordination.** How well are the activities of these organizations and individuals coordinated?

- **Legitimacy.** Does the work have the support of those who can influence its success? Public or private landowners? Government agencies? Elected officials? Influential interest groups or individuals?
- **Funding.** How much funding is available to support work in this area? From what sources will it come?
- **Labor.** Who might be able to carry out the conservation work?
- **Possible Actions.** What actions might help you achieve the outcomes in which you're interested?
- **Information.** Do you have enough information to choose from among these actions? Information about the actions effectiveness, cost, acceptability, collateral effects, and other relevant considerations?

One of the hallmarks of successful conservation efforts is the thoroughness with which they consider the factors that can influence their success. Because the ultimate aim of conservation is on-the-ground benefits, the temptation can be to focus immediately on those management actions that can lead directly to those benefits. But if the complete array of supporting elements isn't in place, these actions may never get off the ground – either because of lack of funding or authorization or support or any of a number of other factors. The elements to the left side of the Co-Conserve Model (Figure 1) provide a foundation for those to the right. After those elements are in place, on-the-ground conservation outcomes come more easily. For an example of how these elements interrelate – and how practitioners use their understanding of these interrelationships to inform their work – see Box 1.

Box 1: Prairie Restoration in the Grand River Grasslands

The Grand River Grasslands is a 70,000 acre area straddling the Missouri-Iowa border. The region has long been a working agricultural area used primarily for cattle grazing, but retains a core of native grasslands. A collaborative partnership of state and federal agencies and nongovernmental organizations has been working there for years to restore native prairie vegetation and species. This work contributes to SWAP priorities in both Missouri and Iowa.

While the ultimate aim of work in this area is prairie restoration, that outcome has depended on the partners' ability to achieve a number of other outcomes first. Conservation work in the Grand River Grasslands began in earnest in the late 1990s when The Nature Conservancy (TNC), the Missouri Department of Conservation (MDC), and the Iowa Department of Natural Resources (Iowa DNR) acquired several parcels of land in the area with significant potential for prairie restoration. These purchases gave them the legitimacy to implement management practices suitable for restoring prairie.

Much attention over the last ten years has been devoted to restoring prairie habitat on these public and TNC parcels. But information about the best restoration methods was lacking. One partner described the identification of suitable restoration techniques as a process of "trial and error."

> *We literally, by trial and error, had to figure out what was going to work and what wasn't going to work. It was a slow process and what works one year doesn't work the next*

year. The technical part of it we were literally writing as we went along.

For key species, such as greater prairie-chickens, to become well-established in the Grand River Grasslands, extensive areas of native prairie vegetation will be necessary. Limiting prairie restoration to the core public and TNC parcels will be insufficient to achieve this objective. Consequently, the Grand River Grasslands Partnership has devoted an increasing amount of attention over the last ten years to prairie restoration on private lands.

The partners faced two challenges in this work on private lands. First, they needed to identify additional funds to support the work. Secondly, they needed to persuade private landowners to allow the work to take place.

The first challenge was easier to address than the second. MDC and Iowa DNR have worked closely with the Natural Resources Conservation Service (NRCS) and the U.S. Fish and Wildlife Service (USFWS) to direct funding to the region from federal cost-share programs that support conservation efforts on private lands. Two of the chief programs used to support this work are the NRCS's Wildlife Habitat Incentives Program and USFWS's Partners in Fish and Wildlife Program. In addition, both MDC and TNC have sources of funding of their own that can be used to support habitat restoration on private lands. None of the partners believe that a lack of funding is a limitation on these conservation efforts on private lands.

The more serious barrier, however, has been finding landowners who are willing to restore native vegetation on their properties. Although some landowners are interested in wildlife and habitat conservation, they understandably place a priority on the viability of their cattle grazing operations. Some practices can meet both conservation and agricultural objectives and reaching a shared understanding of what these practices are with private landowners has been very important to this effort. Many local landowners have been willing to remove trees from their properties, particularly when funding from cost-share programs is available. Tree removal increases the extent of forage available for cattle and increases the extent of grassland available for wildlife. Other practices, such as conversion to native warm season grasses, provide higher quality forage for cattle, but native grasses demand more intensive management by landowners because they can not be grazed as heavily and so cattle have to be rotated from field to field more frequently.

Identifying land use practices that will meet both conservation and agricultural objectives is not always enough to convince landowners to adopt these practices. Some landowners' families have lived on their properties for generations and are not easily persuaded that new practices advocated by government or conservation organizations will benefit them.

> *If I have a fellow that's 70 years old and he's inherited that farm from his father and his father before him…I really have very few of those cooperators… A guy that's making a living for himself and his family and has always done things the same way… That's a hard nut to crack there.*

Addressing this reluctance requires a long-term commitment of members of the Grand River Grassland Partnership to building relationships with the local landowners. The fruits of these

efforts may not be realized for many years. A variety of strategies for establishing contact and building relationships with landowners have been tried, including mailings, workshops, field days, dinners, and others. By all reports, however, the most successful efforts at relationship building involve repeated one-on-one contacts with individual landowners. In response to a question about the most effective ways to recruit landowners, one partner responded:

> *That's easy…one-on-one… You've got to visit with them and develop a relationship. They have to trust you.*

The Collaborative Element

So where does collaboration come in? Up until this point, much of our discussion could apply to *any* SWAP implementation effort – whether collaborative or not. The ingredients or elements necessary for the success of an effort are the same in any event. So just where *does* collaboration fit into the picture?

We've focused this guide heavily on *collaborative* conservation because, even though collaboration isn't required for SWAP implementation (or any other conservation effort, for that matter), it is often necessary or helpful. Given all the ingredients that have to be in place for successful conservation, your chances of success will be greater if you're working effectively with others. So, if you're a practitioner who is working toward a particular conservation outcome, who should you engage as a fellow collaborator? There are two basic considerations – legitimacy and resources.

On the one hand, you could benefit from engaging collaborators who have the authority or influence to win approval for the actions that might need to be taken to achieve the conservation outcome.

- Involvement of large government or private landowners is often critical to habitat restoration work – the people who control the land are in a position to decide whether or not habitat restoration takes place.
- The engagement of key government agencies with statutory authority over the resource is important – state fish and wildlife agencies, the U.S. Fish and Wildlife Service for federally listed species, etc.
- Although they are in positions of authority, elected officials, particularly at the state and federal level, are *not* always suitable collaborators. Many of them simply don't have the time to put into specific conservation efforts. Engagement of interests groups who may be necessary to win the support of elected officials, however, *may* be important, even if those groups are not what are typically considered conservation interests – farmers and ranchers, industry groups, and others.

The other consideration is to engage collaborators who are in a position to provide resources. As we have discussed, conservation work depends on funding, labor, and information.

- Who is in a position to be able to fund conservation work? For example, in habitat restoration efforts that focus on private lands, the USDA Natural Resources Conservation Service and the U.S. Fish and Wildlife Service can be important sources of funding. Both administer programs which share the costs of implementing land use practices with conservation benefits on private lands. Involving them as collaborators in conservation work, and allowing them to shape that work by entering into an open dialogue with them about conservation priorities, can be beneficial.
- Who will actually carry out the conservation work? The sources of labor for conservation work are many and varied. Both nongovernmental conservation organizations and government natural resource management agencies are frequent sources of labor. Citizens' groups sometimes mobilize volunteer support for conservation initiatives. Specialized tasks – ranging from managing prescribed burns to facilitating group dialogue to evaluating the feasibility of potential funding sources – may call for engaging groups or individuals with particular skills.
- Where can you get the information you need? Organizations and individuals who have worked on particular types of conservation initiatives for years are often ready sources of information. When new research-based information is needed to inform conservation, university researchers and scientists with the U.S. Geological Survey may be engaged.

Identifying potential partners who may be able to contribute to your conservation objectives is one consideration, but figuring out how to engage them is another. Forms of partnerships are many and varied. They range from formal entities with clearly defined membership, purposes, and rules for dialogue and decision making to ad hoc and ever-changing assemblages of individuals and organizations that contribute as needed to the purpose at hand. One of the most important principles underlying all forms of partnership, however, is that they rely on relationships and dialogue – and that efforts to cultivate relationships and dialogue are often critical to their success (Box 2).

Box 2: Transportation and Wildlife in Vermont

The Vermont Fish and Wildlife Department (VFWD) and the Vermont Agency of Transportation (VTrans) are engaged in a collaborative effort to improve the connectivity of fish and wildlife habitat, increase roadway safety by reducing wildlife collisions, and avoid unnecessary delays and unanticipated costs in transportation projects. One of the most interesting features of this collaboration is the degree to which efforts to improve relationships, dialogue, and appreciation for each other's interests has resulted in tangible on-the-ground conservation benefits. This collaborative effort addresses one of Vermont's SWAP priorities – wildlife connectivity and addressing wildlife and habitat needs in transportation planning.

The relationship between the Vermont Agency of Transportation (VTrans) and the Vermont Fish and Wildlife Department (VFWD) was described as being "prickly" historically with most of their interactions revolving around VFWD's efforts to ensure that VTrans met its regulatory responsibilities in relation to fish and wildlife. These interactions began to change in the late 1990s when VTrans' Director of Program Development (an upper-level administrative position) participated in a Federal Highway Administration-sponsored "scan tour" of Europe, which focused on wildlife connectivity and how it related to transportation infrastructure. This

experience, particularly his interaction with other participants, convinced him of the value of considering wildlife and habitat needs in transportation projects.

In an effort to improve the dialogue between the two agencies, they created an interagency steering committee, which meets quarterly and serves as a forum for discussion on a wide variety of topics relevant to transportation and wildlife. The role of the committee has been formalized through a Memorandum of Understanding. Over the years, discussions on the committee have spawned a number of other collaborative efforts between the agencies, but partners have described one of its primary values as the degree to which it has cultivated personal relationships between employees of the two agencies.

> *The success of the steering committee is not just bureaucratic. It's also an interpersonal relationship. Vermont runs on interpersonal relationships so knowing who to call I think makes all the difference in the world... We know each other and it's that much easier to pick up the phone and call.*

At about the same time that the interagency committee was being formed, the two agencies agreed to jointly sponsor a new "Habitats and Highways" training program. This primarily field-based educational program, run by two Vermont naturalists (with Keeping Track and the Vermont Reptile and Amphibian Atlas Project), aims to build awareness of and appreciation for wildlife and habitat and how they relate to transportation. It has focused primarily, but not exclusively, on VTrans employees and has enrolled nearly 90 participants over six years.

Both VTrans and VFWD believe this program has been very successful at its goals of building awareness and appreciation, and these qualities have translated into a greater willingness to consider wildlife and habitat needs in transportation work.

> *You get the chance to have these discussions and raise awareness and I think it's through awareness that they see the value and once they have seen the value then they're willing to take action... You gradually build a critical mass of people who are willing to say, "Yeah, this is a valuable thing…if we could figure out how to do it economically, let's do it." That has happened.*

Sometimes solutions to problems caused by transportation projects have been simple and low-cost and have been readily forthcoming once VTrans' staff members became aware of the need.

> *The ultimate goal is for the transportation people to figure out ways that they can do their jobs that fit better with the environment. Some of the solutions have been extremely simple. We've had district guys saying, "Why don't we just put sand on the side of that slope there so the turtles don't have to cross the road to lay their eggs?"... Things like that.*

As with the interagency committee, the training program has helped build relationships between staff members of the two agencies. These relationships facilitate communication and are considered of fundamental importance to the success of this collaborative effort.

The collaboration between VTrans and VFWD has resulted in tangible impacts on a variety of transportation projects. Modifications to the plans to upgrade State Route 78 involved elevating a significant portion of the roadway through a critical habitat area.

> *That project has huge impacts to wetlands …any animal that's going to cross the road in Vermont was crossing at that one spot … bear, moose…frogs…It was conceptually designed to include a 500-foot land bridge and several other crossing structures…as mitigation for impacts to wetlands, so instead of mitigating wetland impacts somewhere far off the site where they have to buy right of way and construct a new wetland that probably wouldn't serve as well as the existing one…they decided to mitigate right on site by building an elevated land bridge.*

VTrans switched from using plastic matting to natural fiber matting for erosion control in an effort to protect snakes.

> *We had discussed the problem of the welded mesh netting and VTrans keep getting it hammered into their heads that it's important to control erosion and put this matting down so the soil doesn't end up in the wetlands and now we're telling them that this stuff is bad and it gets kind of confusing… We tried to change our standards back at [VTrans] to eliminate it and just use the natural fiber matting. It didn't really go very far. After that incident where there were 50 … snakes killed, we put together a meeting to talk about it … We had this meeting and there was no resistance at all and within six months we had the spec changed. But in that first meeting I looked around the table and everybody in that meeting at [VTrans] had been through the training. Everyone was on board.*

A transportation project on Interstate 91 was modified to protect the only known population of black racers in the state.

> *There was a project on interstate 91 that involved the decommissioning of an old rest area …and it happened to be in an area where we have the single known population of the black racer snake, which is an endangered species, and VTrans was very good to work with on that one. We explained the situation to them and they said, "Well, let's figure out collectively how we can best deal with the conservation of that species and still work to realize the project interests." They funded the radio telemetry study of the snakes. They funded the habitat improvement work for the snakes on adjacent state property. They made adjustments to the design of the project…They went above and beyond the call on that one.*

VFWD hopes to build off the existing collaboration to identify priority areas in the state where modifications to transportation projects are necessary to meet wildlife and habitat needs.

The key point here is that collaboration is a process that you can use to increase your capacity to achieve your conservation objectives. When you find yourself up against some barrier,

collaboration may be the solution. And you have two choices regarding how to increase your capacity through collaboration:

- by engaging new collaborators in your effort; or
- by engaging existing collaborators in new ways.

Regardless of the approach you take, every time your collaboration changes, you need to reconsider both your goals and your approach to achieving those goals. Few individuals or organizations are willing to simply plug themselves into an effort to meet needs that have been defined by others (unless they're being paid). But many actors in the conservation community have considerable overlap in their interests. If you're willing to reconsider what your effort will accomplish each time you engage new collaborators, you will find collaborators easier to engage. As we have stressed, the key building blocks of successful collaboration are relationships and dialogue.

"Catalyzing" Your Effort

Many people have observed that in successful conservation, you often find "sparkplugs" or "key leaders" or "catalysts" – individuals who play a particularly influential role in initiating or sustaining the effort. What can we learn from these catalysts about how to make collaboration work? Let's address this question first by considering the roles that catalysts played in three different conservation efforts (Boxes 3-5). In each story, the roles played by the catalysts are most easily understood by referring back to our Co-Conserve Model (Figure 1). In each case, the catalyst addressed a "choke point" in the conservation process – a factor or ingredient that was constraining the effectiveness of the effort.

Box 3: Catalyzing Prairie Restoration in the South Puget Sound

In the South Puget Sound, a number of state, federal, and local government agencies and nongovernmental organizations have been working to restore prairie habitat – a habitat type that was always limited and which has come under increasing threat from development. The primary catalyst of this effort works for The Nature Conservancy. Before he began work in this region, several organizations had been working towards prairie restoration, but they were doing so more or less independently. The program was described as being in its an early formative stage.

> *At that time the South Sound program ... was in its infancy. [The catalyst] had come a couple of years before then. At that point it was largely cutting Scotch broom in key prairie sites and trying to identify our niche with the other partners …Ft. Lewis primarily, but then the other individual owners... Thurston County, state [Department of Natural Resources], state Department of Fish and Wildlife.*

The catalyst recognized that the work would benefit from more coordination of the various restoration efforts. He had a clear vision of the type of process that was needed to encourage collaboration and coordination – a process involving both relationship building and dialogue.

> *This is the framework of our cooperative strategies…a three-tiered thing…information*

transfer, linking of entities together, and generating incentives to implement identified actions.

He worked to create this type of process using a variety of strategies. He recruited individuals and organizations to be involved in these efforts. He played a key role in the formation of the South Puget Sound Prairie Working Group, which served as a primary forum for communication among various organizations working on restoration for a number of years. He also fostered a number of other opportunities for information exchange.

We do have informative web sites and a listserv and we've held several targeted workshops …It's important to get someone to run the meeting and bring everybody together, provide a forum for presentation and discussion, so that means engaging people to present about whatever the topic of the meeting is, and identifying those shared goals between those parties …[It] results in synergies… "We're working on that"…"Oh, we are too"…sharing the best management practices, etc. Often has a field trip component so it will be presentations in the morning with an afternoon field trip.

He also had the force of personality to actively engage other individuals working on these efforts.

I think it was largely [the catalyst's] efforts and enthusiasm that started bringing in more and more partners.

[The catalyst] and his personality and assertiveness. I suppose you might lump all that under leadership qualities.

The restoration efforts built up momentum after he became involved.

I think previously we were pretty good at making solid ecological and scientific recommendations but weren't able to then take those and do something on the ground. [The catalyst] expanded the collaboration to bring in some funding and some people and volunteers I think to get work done on the ground. Everybody knew Scotch broom was a problem on the prairies. We didn't have a good way to tackle it on a very big scale …and that led to collaboration...pretty significantly increased the capacity...from Fish and Wildlife to TNC to the county...It created more real opportunity to work across those agencies...I think that's a really significant plus …It just took us from DNR working here or WDFW working over here to… we began to do sharing for our common good across those boundaries.

Box 4: The Montana Conservation and Restoration Partnership

In the Montana Conservation and Restoration Partnership (described in an earlier section), the catalyst played a somewhat different role. Although a variety of conservation actors in Montana

were interested in fish and wildlife conservation, in general, and implementation of Montana's Comprehensive Fish and Wildlife Conservation Strategy, in particular, the catalyst, based in part on the results of a situation analysis he helped to organize, recognized that the capacity for conservation was limited.

> *We had intended to try to quantify what sort of funding was available to implement this strategy and then use that to do a gap assessment…figure out what was available and what was needed…what the gap was and use that as the foundation for driving forward with some new funding proposals…Everybody was on board that there weren't enough resources.*

He realized that any attempts to build capacity for conservation would require widespread agreement of diverse stakeholders about capacity needs and strategies for addressing those needs.

> *In Montana, if you want to get something passed from the legislature, you build the coalition from the ground up so that neither the legislature or the governor, regardless of which party is in control, can say no … I've done that enough over the years…just the recognition that that's the way to be successful if we want a new funding program. Given all of that the way to start was by talking with people.*

He played an instrumental role in the subsequent creation of the Montana Conservation and Restoration Partnership. In both cases, he sought to ensure that these efforts were built on an open and balanced dialogue and were not dominated by any particular interests, such as the Montana Department of Fish, Wildlife and Parks. Because he worked for Fish, Wildlife and Parks, he strove to ensure that he would not dominate the dialogue, and so stayed out of playing a facilitator role.

> *Top-down state-driven isn't going to make this happen. We've hired a facilitator… I have intentionally tried to provide leadership by pushing things along and making things happen but not by directing.*

Participants in the process generally agree that the efforts to build relationships and encourage open dialogue among diverse interests have been very successful.

> *I think people have been fairly positive about the personal relationships that are involved and have recognized the diversity of the group as a strength and respect the facilitation.*

Box 5: Catalyzing Transportation-Wildlife Coordination in Vermont

In Vermont, the limiting factor constraining attempts to better integrate wildlife and habitat considerations into transportation decision making was the support or legitimization of these efforts by the Vermont Agency of Transportation (VTrans). In this case, the catalyst was an

upper-level administrator who was in a position to legitimize these efforts once he, as one person described it, "got religion" about the topic.

> *[The catalyst] was the corner office skeptic. He was the director of programs …so he was making decisions. It was crucial to have somebody in the decision-making role at that level support it and especially one who came from that skeptical perspective.*

In addition to his position, his forceful personality enabled him to influence agency direction.

> *He was a very influential character at VTrans…a real sort of leader type. He liked being a leader and people really liked him.*

Given that he had authority over some of VTrans' resources, once he was convinced of the value of a particular idea, he could make those resources available to actualize it.

> *We formed this committee that would meet four times a year and we'd come up with ideas to discuss… [The catalyst] would say it was a good idea or a bad idea. And that's where we presented the idea of doing our regional conference and he said, "Take $10,000 of state administrative funds and hire a conference organizer and put it together."*

As in the Puget Sound and Montana cases, the catalyst worked to engage a variety of actors in dialogue about the common issues they faced.

> *My understanding of the history is that [the catalyst], who worked for VTrans, was a real proponent of wildlife crossing work and was pretty high up in VTrans and he really made sure that the steering committee was active and had a lot of power.*

However, in this case, one key reason for the catalyst's effectiveness was also his individual authority and control over resources. Consequently, the effectiveness of the collaborative partnership was somewhat vulnerable once he left the agency.

> *The Achilles heel was [the catalyst], or anyone in this position, is they're a political appointment. So they can come and go at the will of the governor. [The catalyst] was released from his position some time ago now and since then the interest of VTrans, while it's still there, has not been the same as it was with [the catalyst].*

Clearly, the role played by catalysts may be different from one context to another. But similarities also exist, and these similarities can help you think about how you might approach catalyzing your own conservation effort.

- In the examples we presented, each catalyst represented agencies that had legitimacy regarding the issue in question. In the Puget Sound, the catalyst worked for The Nature Conservancy, which both owned one of the remaining parcels of native prairie in the area and was widely respected for its conservation expertise. In Montana, the catalyst worked

for Montana Fish, Wildlife and Parks, which ultimately was most responsible for the development and implementation of Montana's Comprehensive Fish and Wildlife Conservation Strategy. In Vermont, the catalyst worked for VTrans, which had authority for state transportation activities.

- Each catalyst demonstrated ownership, or a strong commitment to a particular conservation agenda.
- Each catalyst recognized a factor that was limiting conservation progress, whether that limiting factor was a lack of coordination in the Puget Sound, the need for agreement about building capacity for implementation of the Comprehensive Fish and Wildlife Conservation Strategy in Montana, or the need for VTrans' support and resources in Vermont.
- Each catalyst was in a position to address the limiting factor. In Vermont, the catalyst was in a position of authority and so could provide support and resources from VTrans as he deemed appropriate. In the other two cases, the catalysts had clearly articulated visions of how to design a process that could fill the need. In the Puget Sound, the catalyst advocated a three-tiered strategy of creating linkages, information exchange, and providing incentives. In Montana, the catalyst advocated a decision-making process based on a balanced dialogue among diverse interests.
- Each catalyst paid considerable attention to the social foundation of conservation, working to establish relationships and encourage dialogue, both formally and informally.
- And each catalyst exhibited leadership qualities, demonstrating willingness to orchestrate those social processes that were necessary to address the needs they perceived. Someone has to be willing to making sure things get done – whether that is organizing meetings or any of a variety of other efforts.

Final Advice: Tailoring Your Effort to Your Purposes

Clearly, the number of ways that practitioners can work to implement the SWAPs is immense. With efforts as varied as species restoration, development of new funding sources, and fostering agreement about conservation needs and strategies among diverse stakeholders, the demands placed on practitioners can be wide-ranging. The good news is, you don't have to do it all on your own. Practitioners generally focus on work that matches their particular interests and skills, and, in the majority of cases in which help from others is needed, collaboration is an integral part of conservation work.

Because conservation efforts are so varied, however, collaborations have to be tailored to the purposes at hand. Throughout this guide, we have referred to many ways that these efforts can be tailored.

The focus of conservation work is shaped by the long-term on-the-ground conservation outcomes you hope to achieve and the context in which you hope to achieve them. Each context is unique. In each, you have to consider what ingredients need to be in place for you to achieve your conservation goals. In some cases, you may have those ingredients in place right from the start, and so you can get right to work on on-the-ground conservation. In others, you may be better served by focusing on some preliminary steps first, such as sponsoring relevant research,

lobbying for additional funding, or forming a multi-stakeholder task force to explore common interests.

The partners you need to engage will depend upon what you hope to achieve. Key collaborators in ecological field research will be different from those who can help you to lobby for new government funding. Those who can help with captive breeding projects will be different from those who can help you foster dialogue and build relationships. Figure out who is in the best position to help you depending on your particular needs.

The way you structure your partnership also will vary with your objectives. This is not simply a question of which partners to engage. The ways that partners relate to and interact with each other are many and varied. As mentioned earlier, partnerships may vary from those that are formal and well-defined with clear rules for dialogue and decision making to those that are informal and loosely structured. There are no clear guidelines for setting up a partnership – each has to be individually tailored to circumstances and having someone on board with experience orchestrating collaborative processes can be a big help. However, we've seen certain general patterns in the successful efforts we've studied.

In general, successful partnerships take different forms in two different types of situations:

- Situations in which partners are in agreement about what they want to accomplish and are merely trying to figure out how to accomplish it; and
- Situations in which partners need to reach agreement about what they want to accomplish.

Situations in which agreement on conservation needs does not already exist often call for partnerships that are more formally structured with greater attention given to membership in the partnership and rules for dialogue and decision making. Reaching agreement requires lots of negotiation. Individuals have to bridge their differences, figure out where they agree, establish priorities, and lots of other things that demand give and take. Building support in a process like this depends on people feeling that their interests have been heard and considered and that the partnership is not simply oriented toward approving a pre-conceived agenda. Careful attention to who can participate in the conservation (all affected interests) and the rules for dialogue and decision making can help reassure people that the deck is not stacked against them. People who take part in these types of efforts tend to talk about the importance of diverse membership and balanced dialogue.

> *I think there's enough diversity … with the makeup. I would give Fish, Wildlife and Parks credit for ultimately making the decision about who is going to sit on that originally. So I do think they did a nice job of at least selecting folks that had enough diversity that one group wasn't going to be too overbearing on another group.*

> *I think that one strength is that they have a good facilitator. They do recognize that you've got to have somebody…You have to spend the money to have a facilitator and keep things on track. I think that the overall decision-making process is good because it's not going to allow for certain interests in the group to dominate.*

But in situations in which strong agreement already exists about what needs to be accomplished, such a formal approach to group membership and decision making can be stifling. Rather, efficiency is a more important consideration, and efficiency can increase if people and organizations are engaged on an as-needed basis. Partnerships in these circumstances often show some individuals playing much more active roles than others. And partners describe their roles in narrower and more specific terms.

> *Our role really has been one of finding funding sources for getting the money into the program and kind of injecting a little extra funding sources where we can get a lot of work done, specifically on private lands ... So we do collaborative efforts to find projects but for the most part, either the DNR or Nature Conservancy or someone probably has the majority of those projects lined up and then we come in with some funding sources to get the projects done. That's how we fit into the project.*

A last lesson to take out of this guide is that no collaborative conservation effort is static. This generalization was amply illustrated by the prairie restoration efforts in the Grand River Grasslands (Box 1). In that case, the partnership did not simply have one particular outcome in mind, achieve that outcome, and then end their work. Instead, they had a long-term vision of habitat restoration, and that effort has faced different barriers or constraints at different times. The partnership has allowed itself to evolve in response to these barriers – addressing those that would have the biggest influence on prairie conservation first, and then moving on to others once those were successfully addressed. This approach has called for the engagement of different individuals and organizations to a greater degree at particular points in time, and illustrates the flexibility of the key individuals and organizations involved in this work that is often a hallmark of successful conservation.

Further Reading

For those interested in additional reading, many good sources exist that describe successful examples of collaborative conservation, provide guidance on structuring collaborations, or offer practical advice regarding the interpersonal negotiations that are integral to all collaborative work. Some of the sources on which we have relied are listed below.

Chase, L.C., T.M. Schusler, and D.J. Decker. 2000. Innovations in stakeholder involvement: what's the next step? Wildlife Society Bulletin. 28:208-217.

Curtis, A. 1998. Agency-community partnership in landcare: lessons for state-sponsored citizen resource management. Environmental Management 22:563-574.

Decker, D.J., D.B. Raik, L.H. Carpenter, J.F. Organ, and T.M. Schusler. 2005. Collaboration for community-based wildlife management. Urban Ecosystems 8:227-236.

Fisher, R. and W. Ury. 1991. Getting to yes. New York: Penquin Books.

Gray, B. 1989. Collaborating: finding common ground for multiparty problems. Jossey-Bass, San Francisco.

Lauber, T. B., and T. L. Brown. 2006. Learning by doing: policy learning in community-based deer management. Society and Natural Resources 19:411-428.

Lauber, T.B., R.C. Stedman, D.J. Decker, and B.A. Knuth. 2009. Wildlife funding/policy linkages: using State Wildlife Action Plan priorities to shape policies and direct expenditures at multiple levels of government. HDRU Series No. 09-4. Department of Natural Resources. N.Y.S. College of Agriculture and Life Sciences. Ithaca, NY.

Leach, W. D., and N. W. Pelkey. 2001. Making watershed partnerships work: a review of the empirical literature. Journal of Water Resources Planning and Management 27:378-385.

Leong, K.M., D.J. Decker, T.B. Lauber, D.B. Raik, and W.F. Siemer. 2009. Overcoming jurisdictional boundaries through stakeholder engagement and collaborative governance: lessons learned from white-tailed deer management in the U.S. pp. 221-247 In K. Andersson, E. Eklund, M. Lehtola, and P. Salmi, eds. Beyond the rural-urban divide: Cross-continental perspectives on the differentiated countryside and its regulation. Emerald Group Publishing, Ltd. Bingley, United Kingdom.

McCool, S.F. and K. Guthrie. 2001. Mapping the dimensions of successful public participation in messy natural resources management situations. Society and Natural Resources. 14:309-323.

Susskind, L. and J.L. Cruikshank. 1987. Breaking the impasse: consensual approaches to resolving public disputes. Basic Books, New York, NY.

Wondolleck, J. M., and S. L. Yaffee. 2000. Making collaboration work: lessons from innovation in natural resource management. Island Press, Washington, DC.

Figure 1. Collaborative Conservation Model (Co-Conserve Model): How collaborative SWAP implementation takes place.