

REVIEW OF MODELS FOR SAGEBRUSH BIOME PARTNERSHIP GOVERNANCE



National Center for
Environmental Conflict Resolution

Udall Foundation



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ACRONYMS

AFWA - Association of Fish and Wildlife Agencies
AMI - Adaptive Management Initiative
BLM - Bureau of Land Management
CBP - Chesapeake Bay Program
DOI - Department of Interior
EC - Executive Council (of the Chesapeake Bay Program)
EPA - U.S. Environmental Protection Agency
GAO - General Accounting Office
GIT - Goal Implementation Team
IK/TEK - Indigenous Knowledge/Traditional Ecological Knowledge
IWJV - Intermountain West Joint Venture
JV - joint venture
LCC - Landscape Conservation Cooperative
NAS - National Academies of Sciences, Engineering, and Medicine
NAWCA - North American Wetlands Conservation Act
NAWMP - North American Waterfowl Management Plan
NISC - National Invasive Species Council
NGO - nongovernmental organization
NRCS - Natural Resources Conservation Service
NWBP - Northwest Boreal Partnership
PLJV - Playa Lakes Joint Venture
PSC - Principals' Staff Committee (of the Chesapeake Bay Program)
SECAS - Southeast Conservation Adaptation Strategy
TMDL - Total Maximum Daily Load
USFS - U.S. Forest Service
USFWS - U.S. Fish and Wildlife Service
WAFWA - Western Association of Fish and Wildlife Agencies

EXECUTIVE SUMMARY

At the request of the Western Association of Fish and Wildlife Agencies and the Bureau of Land Management, the Udall Foundation's National Center for Environmental Conflict Resolution conducted a review of successful models of landscape-level collaborative partnerships to identify lessons learned and best practices that could be applied to the development of a collaborative partnership in the sagebrush biome. We reviewed three key collaborative partnership models (the North American Wetlands Management Plan and associated Joint Ventures, the Northwest Boreal Partnership, and the Chesapeake Bay Program) and four secondary models (Blackfoot Challenge, Crown of the Continent, the National Invasive Species Council, and the Southeast Conservation Adaptation Strategy).

We conducted a desk review of all the models as well as interviews with selected representatives of the key models. We then assessed these models against seven key factors drawn from the literature on collaborative governance. As a result, we have drawn some clear lessons for creating a collaborative partnership focused on the sagebrush biome. Those lessons include:

- **Setting up measurable goals for the partnership and methods to track**, report, and adjust as needed using an adaptive management approach. At the same time, recognizing that this can be a longer-term, iterative process and avoiding over-emphasis on numeric outcomes in complex ecological environments.
- **Thinking in a broad and inclusive way about who should participate** in the collaborative, bringing in potential partners at the outset to help shape the partnership, and devoting the necessary time and resources to engaging affected Indigenous and other historically marginalized communities. Having engaged this diverse group, drawing on the interests and perspectives of participants to conceptualize a partnership that can speak to this broad range of interests while orienting the participants toward a common goal.
- **Creating pathways to incorporate scientific and technical knowledge into decision making, while also integrating other types of knowledge**, such as Indigenous Knowledge/Traditional Ecological Knowledge and an understanding of the human relationship to the environment.
- **Identifying sufficient, sustainable, and diversified sources of funding**, ideally including a core base of Federal funds, and tapping into a diverse partnership to bring innovative funding sources to the table.
- **Engaging high-level leadership in the region** to establish the partnership and remain involved over the life of the partnership to set priorities and direction. Ideally, the leadership group's ongoing engagement would be supported by staff who are more regular participants in the partnership.
- **Securing sufficient, stable funding for independent staff positions** to coordinate operations. If possible, devoting some staff to communication and outreach functions.
- **Developing a well-articulated and consensus-based decision-making process** to provide clarity and direction to the group.
- **Cultivating relationships of trust among participants** by creating a non-regulatory partnership, shaping goals to align with participants' interests, and investing the time and resources in relationship-building efforts and orientation for new members.
- **Carefully considering the incentives, roles, and connections between participants at different scales** and incorporating that understanding into the partnership design.

These results are intended to inform the development of proposed partnership governance model(s) for the sagebrush biome by an advisory committee and stakeholders in the sagebrush ecosystem, which is expected to take place in the spring of 2021. We hope the results of this research will provide useful guidance and help to frame the conversation for those working to forge collaborative partnerships in sagebrush biome conservation.

INTRODUCTION

The Western Association of Fish and Wildlife Agencies (WAFWA) is coordinating the development of a Sagebrush Conservation Strategy with the support and active participation of the Bureau of Land Management (BLM), the U.S. Fish and Wildlife Service (USFWS), and many other State, Federal, and nongovernmental organization (NGO) partners. The aim is to address the accomplishments and challenges related to conservation and restoration of the sagebrush ecosystem.¹ This effort grew out of WAFWA's Sagebrush Conservation Initiative, which is dedicated to supporting a "healthy, working sagebrush landscape for people and wildlife." The strategy will have two parts: Part A will consist of a contextual analysis of the human and wildlife needs from the sagebrush habitat, and a scientific review of threats and related conservation challenges; Part B will include sections on sagebrush community ecology, examples of successful collaborative conservation programs, and updated strategies developed through a series of facilitated, virtual workshops conducted in May 2020.²

In support of Part B, WAFWA and BLM have sought assistance from the Morris K. and Stewart L. Udall Foundation's National Center for Environmental Conflict Resolution (National Center) to identify potential collaborative governance models that would support partnership effort to conserve the sagebrush habitat that spans 13 western states and is one of the most threatened biomes in North America. The desired partnership governance model would ensure that all actors - including State wildlife agencies, State departments of agriculture, State oil and gas conservation commissions, State land boards, Tribes, Federal agencies, NGOs, industry, and landowners - are effectively using their authorities and resources to conserve the sagebrush biome and the ecosystem services derived from it.

The Morris K. and Stewart L. Udall Foundation (Udall Foundation) was established by the U.S. Congress as an independent executive branch agency to honor the Udalls' lasting impact on this nation's environment, public lands, and natural resources, and their support of the rights and self-governance of Native Americans and Alaska Natives.³ The National Center, a key program of the Udall Foundation, provides impartial collaboration, consensus-building, and conflict resolution services for complex environmental challenges and conflicts that involve the U.S. Government.

A Core Team was established to assist the National Center in various aspects of this project as described below. Core Team members are Pat Deibert, USFWS; Ali Duvall, Intermountain West Joint Venture; Shawn Johnson, University of Montana; Ken Mayer, WAFWA; Karen Prentice, BLM; Tom Remington, WAFWA; and San Stiver, WAFWA.

¹ Chris Smith, "Developing a Comprehensive Sagebrush Conservation Strategy," *Outdoor News Bulletin* 74, issue 8 (August 2020), <https://wildlifemanagement.institute/outdoor-news-bulletin/august-2020/developing-comprehensive-sagebrush-conservation-strategy>.

² Smith, "Developing a Comprehensive Sagebrush Conservation Strategy."

³ P.L. 102-259.

WHY PARTNERSHIP GOVERNANCE

In recent decades, there has been a growing recognition that stakeholders' ability to collaborate toward their mutual goals is a key factor in achieving desired conservation outcomes.⁴ Due to the scale and complexities of current natural resource management, collaborative work has even become necessary.⁵ Therefore "collaborative conservation" has become a primary focus in large-landscape conservation.⁶

The sagebrush biome is geographically vast (covering portions of 13 states) and is confronted by numerous threats - the solutions to which are complex, and which must be implemented across multiple scales and forms of land tenure. In fact, Bixler et al. (2019) documented 509 entities across the country that self-identified as being active in sagebrush conservation, with likely many more that do not necessarily identify themselves as such.⁷ Across this complex landscape, an expanded governance model is needed to ensure that all actors are effectively and efficiently coordinating actions on a set of established, shared priorities.

APPROACH

In this research report, our goal is to inform the design of a potential partnership governance system for the sagebrush biome by drawing lessons from other successful partnerships in large landscape settings. At the same time, the National Center also is conducting an assessment of the stakeholders in the sagebrush system to better understand their priorities, concerns, and needs with regard to participating in a potential collaborative partnership for sagebrush conservation. This assessment will result in a separate report.

Together, the two reports will inform the work of an advisory committee, composed of representatives of State and Federal agencies, Tribes, and stakeholders in sagebrush conservation, which will design proposed governance model(s) for a collaborative partnership for sagebrush biome conservation. Throughout the model development process, the advisory committee will invite comments from the larger community that is involved in implementing the work of sagebrush conservation. The process of developing proposed partnership model(s) is expected to take place in spring 2021, with a final recommendation for proposed models anticipated in June 2021.

To conduct our research, National Center staff reviewed nine existing models of collaborative partnerships. With input from the Core Team, we searched for partnership models with the following characteristics:

⁴ National Academies of Sciences, Engineering, and Medicine, *A Review of the Landscape Conservation Cooperatives* (Washington, DC: The National Academies Press, 2016), 19.

⁵ Lynn Scarlett and Matthew McKinney, "Connecting people and places: the emerging role of network governance in large landscape conservation," *Frontiers in Ecology and the Environment* 14, no. 3 (2016): 116.

⁶ Scarlett and McKinney, "Connecting people and places."

⁷ Patrick Bixler et al., "Toward a Network Governance Strategy of the Sagebrush Landscape: an empirical assessment of stakeholders and networks to inform multi-scale governance and implementation of the Sagebrush Conservation Strategy," (2019), 23.

- Management-focused governance bodies that operate in a science-informed way, ideally using an adaptive management approach
- Success integrating Federal agencies and other partners in a coordination role
- Shared vision, goals, objectives, and/or priorities for natural resource management
- Roles in both strategic planning and project implementation
- Clear lessons learned and illustration of the role of several of the assessment factors (see below)
- Applicability and parallels to the sagebrush effort, including geographic similarities if possible
- Sufficiently long operational histories (at least three years) to show some results
- Some influence on how resources are distributed to achieve conservation, as well as ability to secure additional resources

It is important to note that we did not do a comprehensive review of all large landscape partnerships and evaluate their levels of success. Rather, we selected some examples with the above characteristics that we thought would be instructive for the sagebrush endeavor. We sought to learn from those models how they approached some key elements of a partnership governance system.

Our review of the literature on collaborative governance (see [Appendix A](#)) helped us to identify the following factors that we would use to assess and draw lessons from each of the focus models:

- Goals and measurable impact
- Balanced and inclusive representation
- Access to needed knowledge and scientific or technical information
- Sufficient and sustainable funding
- Approach to decision making and conflict resolution
- Leadership and staffing roles
- Relationships among participants

After considering 15 partnership models gleaned from our research and Core Team recommendations against the above criteria, we selected three models for more in-depth review, including interviews with selected representatives: the North American Waterfowl Management Plan (NAWMP), the Northwest Boreal Partnership (NWBPP) as an example of the Landscape Conservation Cooperatives, and the Chesapeake Bay Program. These would be the **key models** for our review. We also decided to conduct literature reviews of the associated Intermountain West Joint Venture and the Playa Lakes Joint Venture as part of the NAWMP system.

In addition, the following models illustrated at least some of the factors we were considering but were not as comprehensive as our key models listed above. We conducted a desk review focused on the illustrative factors in these models:

- Blackfoot Challenge
- Crown of the Continent
- National Invasive Species Council
- Southeast Conservation Adaptation Strategy

We have summarized the main points under the assessment factors for each model in the table below. For the full description of each model by assessment factor, see [Appendix B](#). In the subsequent Findings section, we summarize the lessons learned and best practices gleaned from the models and the

collaborative governance literature we reviewed. Our analysis, combined with the results of the stakeholder assessment, aims to inform the advisory committee and sagebrush stakeholders in their development of partnership governance models for sagebrush conservation.

MODEL SUMMARY TABLE

	North American Waterfowl Management Plan (NAWMP)	NAWMP: Intermountain West Joint Venture (IWJV)	NAWMP: Playa Lakes Joint Venture (PLJV)	Northwest Boreal Partnership (NWBP)	Chesapeake Bay Program (CBP)
Goals and Measurable Impact	<p>NAWMP has three goals focused on waterfowl populations, wetlands, and people. Goals are clear with associated recommendations and action plans.</p> <p>The original NAWMP goal of restoring waterfowl populations to levels during the 1970s has been measured and achieved. NAWMP, as originally established, was successful and has now grown its goals to achieve more.</p>	<p>Conservation goals of NAWMP are delivered primarily through JVs</p> <p>Establishes priorities, activities, and budget in Implementation Plan & its annual operational plan; also lists achievements, including metrics</p> <p>Developed science-based planning framework for working wet meadows; used bioenergetic model to create habitat objective of 64,700 acres on private land</p>	<p>Conservation goals of NAWMP are delivered primarily through JVs</p> <p>Established goal of 32,611 healthy playas out of 71,850</p> <p>Website tracker shows status: 150 playas restored in 2017, 328 others had reduced functionality</p> <p>Demonstrates need to do more to offset impacts</p>	<p>The strategic plan is in the process of being updated due to all the changes the NWBP has undergone recently.</p> <p>Due to this, it is difficult to measure impact specifically.</p>	<p>Methods for setting and tracking its goals have evolved over 35 years</p> <p>2014 agreement: 5 thematic areas with 10 interrelated goals, and 31 measurable outcomes</p> <p>Goal Implementation Teams (GITs) developing strategies to reach each outcome by 2025</p> <p>Uses Strategy Review System, a structured process to apply an adaptive management approach</p> <p>Bay pollution generally decreasing; progress in some key areas slow</p>

<p>Balanced and Inclusive Representation</p>	<p>The Plan Committee has equal representation numbers from Canada, the U.S., and Mexico.</p> <p>Ducks Unlimited and other NGOs are helpful partners.</p> <p>Sufficient representation on project implementation is best viewed at the Joint Venture level.</p>	<p>“Relentless” focus on building diverse relationships, an IWJV core value</p> <p>Emphasizes broadening the conservation frame to bring together diverse partners and funders in projects that benefit ecosystem & participants</p> <p>Intends to outreach to new audiences; may need to broaden its messaging (e.g., fire, invasives)</p>	<p>Emphasizes the importance of partnerships to its success</p> <p>Building its partnership with the wind industry, due to potential to significantly impact the playa landscape</p> <p>Helpful to have a non-regulatory approach</p>	<p>The Steering Committee includes those who use or manage natural or cultural resources; conduct related science; or possess traditional ecological knowledge.</p> <p>The Partnership reports building more trust by involving Indigenous partners from the outset.</p>	<p>Includes 19 Federal agencies, nearly 40 State agencies / programs, ~1,800 Local Governments, over 20 academic institutions, over 60 businesses, nonprofits, and advocacy groups</p> <p>Headwater states of the Chesapeake Bay signed on to 2014 agreement</p> <p>Goal to increase the diversity of participants by engaging underrepresented groups, including Tribes</p>
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<p>Access to Needed Knowledge and Scientific or Technical Information</p>	<p>NAWMP Science Support Team facilitates scientific collaboration between the Plan Committee, Federal wildlife agencies, and Joint Ventures.</p>	<p>2013 technical documents identify avian conservation priorities based on scientific evaluation</p> <p>Based on that analysis, IWJV prioritized investments, conservation work, and partnerships on key wetlands and high value areas</p> <p>Developed scientific understanding of key role of irrigated wet meadows for bird habitat & conservation</p> <p>Developed Wetlands Dynamics Technical Report and Decision Support Tool to guide wet meadow conservation</p>	<p>Science Advisory Team lays the foundation for conservation goals and activities, develops research plans, monitoring and evaluation protocols, and reviews research project proposals</p> <p>Developed essential scientific understanding of playas' role in aquifer recharge and human relationship to playas, leading to innovative partnerships</p>	<p>The NWBP balances knowledge from Western science data and Indigenous or traditional ecological knowledge.</p> <p>Projects now focus more on Indigenous-led efforts, such as Indigenous led land-use planning.</p>	<p>Adaptive management approach using Strategy Review System & ChesapeakeDecisions tool</p> <p>Goals linked to outcomes & deadlines, reviewed on 2-year cycle</p> <p>Adaptive management challenge: helping decision makers understand when appropriate to make changes</p> <p>Scientific and Technical Advisory Committee provides independent scientific/technical input</p> <p>Science, Technical Analysis, and Reporting group meets scientific & technical needs of GITs</p> <p>Suite of scientific & technical programs (e.g., modeling, monitoring)</p> <p>Needs to find ways to incorporate IK/TEK</p>
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<p>Sufficient and Sustainable Funding</p>	<p>Projects in support of the Plan are often funded through the North American Wetlands Conservation Act and must be matched. These funds have been sustainable.</p>	<p>Receives an allocation of Federal funds through USFWS and primary funding from BLM</p> <p>Partner contributions constituted 72% of income in FY2021</p> <p>11% funding increase in 2020 attributed to work of Government Relations Committee, partners, and staff</p>	<p>USFWS joint venture funds make up about 50% of revenue</p> <p>Diversified funding - since 1990, PLJV has raised over \$50 million</p> <p>Members of the board contribute \$5,000 annually</p> <p>PLJV may contribute matching funds for wetlands projects that conserve bird habitat; also offers the PLJV ConocoPhillips Capacity Grant program for State grassland habitat programs</p>	<p>Funding and staff support for the NWB LCC originally came from USFWS.</p> <p>Now NGO partners manage grants, host staff positions, and assist with fundraising.</p>	<p>Many funding sources for ecosystem protection & restoration: Federal, State, and Local Governments; NGOs; and private sector</p> <p>Significant source is EPA appropriations; funds support the CBP Program Office, including staffing, scientific and technical expertise, and decision support tools</p> <p>Some nonprofits help diversify funding</p> <p>Budget and Finance Work Group is the focal point for coordination, funding innovation, and reporting</p> <p>Federal Office of Management & Budget reports on the CBP budget annually in the <i>Chesapeake Bay Spending Restoration Crosscut</i></p>
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<p>Leadership and Staffing Roles</p>	<p>The Plan Committee’s role is to provide direction and facilitate large-scale or long-term waterfowl discussions without prescribing actions from the Joint Ventures.</p> <p>USFWS, Association of Fish and Wildlife Agencies, and Canadian Government provide support staff.</p>	<p>Governed by a 21-member Management Board, comprised of representatives from a variety of sectors, including State and Federal agencies, NGOs, the energy industry, and private landowners</p> <p>Funded for 13 staff positions</p>	<p>Governed by a 21-member Management Board with members representing wildlife conservation organizations, State and Federal wildlife agencies, State agriculture agencies, and industry</p> <p>8 staff members</p>	<p>The leadership team includes a co-chair and vice-chair from each country and the Partnership Director.</p> <p>Staff includes a full-time Partnership Director and Communications and Outreach Coordinator.</p>	<p>Hierarchical structure headed by the Chesapeake Executive Council (governors of signatory states, mayor of DC, EPA administrator, and chair of the Chesapeake Bay Commission)</p> <p>The Executive Council is supported by the Principals’ Staff Committee, composed of high-level State and Federal leaders</p> <p>The Management Board does strategic planning, sets priorities, and offers operational guidance; members of represent their signatory or Federal agency</p> <p>GITs are responsible for coordinating implementation</p> <p>EPA maintains the Chesapeake Bay Program Office</p>
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<p>Approach to Decision Making and Conflict Resolution</p>	<p>The Plan Committee largely operates by consensus.</p>	<p>Work is focused on common-ground solutions that work for the diverse interests represented by a public-private partnership</p> <p>Decision-making relies on the Management Board, working closely with committees, staff, work groups; requires significant capacity to facilitate effective meetings where people are incentivized to work together</p> <p>Conflict resolution has not been required</p>	<p>Meetings facilitated by staff or board officers; an independent facilitator has not been necessary</p> <p>No significant need for conflict resolution</p>	<p>The NWBP operates by consensus. The Leadership Team makes day-to-day work decisions or decisions that require a rapid response.</p> <p>High-level decisions are made by the entire Steering Committee.</p>	<p>Defined AM decision-making process: under the Strategy Review System, the GITs and the WGs report on their progress to the Management Board on 2-year cycles</p> <p>ChesapeakeDecisions tool guides the participants through the Strategy Review System and promotes transparency</p> <p>Adopted the University of Maryland Center for Leadership & Organizational Change’s “consensus continuum” for decisions</p> <p>Has series of well-articulated steps in the decision-making process</p> <p>Staff coordinators and chairs facilitate meetings; generally third-party neutral facilitation has not been necessary</p>
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<p>Relationships Among Participants</p>	<p>Relationships on the Plan Committee change with turnover. Between the Plan Committee, working groups, and the Joint Ventures, it is possible to feel disconnected from the whole.</p>	<p>Prides itself on forging diverse partnerships that are based on the needs and interests of those involved and are mutually beneficial</p> <p>The significant funding that the IWJV receives from its partners - as well as its longevity - seem to reflect the high value that participants place on the organization and its work</p>	<p>There is a great deal of trust among PLJV members, in part because the effort is not regulatory</p> <p>Members are generally committed to furthering the work of the JV because it aligns well with their own missions</p>	<p>The NWBP builds and maintains relationships by being patient with relationship-building, asking what matters to people, and prioritizing in-person field trips.</p>	<p>The bay-wide total maximum daily load has in part eroded trust because even if the states have committed to meeting their assigned load, they may not have the resources to carry it out</p> <p>The total maximum daily load has also complicated EPA's role within the CBP, adding another dimension to the agency's responsibilities</p>
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FINDINGS

Having reviewed both the key models and the relevant elements of some secondary models, we identified a number of lessons related to our assessment factors that can be instructive in developing a governance system for the sagebrush effort. In this section, we discuss those lessons and point to some best practices for each of the assessment factors.

GOALS AND MEASURABLE IMPACT

1. A compelling vision and agreed-upon quantitative goals were essential components of successful governance models.

As pointed out in the 2016 National Academies of Sciences, Engineering, and Medicine (NAS) report on the Landscape Conservation Cooperatives (LCCs), critical components for collaborative efforts include, among other things, "a unifying theme, adaptive management, strategic planning efforts, [and] metrics to aggregate project impacts . . ." ⁸ Two of the key models that we reviewed - NAWMP with its accompanying JVs and the Chesapeake Bay Program - made an effort to use strategic planning to set goals that are measurable, track progress against them, and make adjustments as needed using an adaptive management framework. The third key model, the Northwest Boreal Partnership, is in the process of developing such goals through its strategic plan revision. In another example, the Southeast Conservation Adaptation Strategy (SECAS) established a long-term goal of 10% improvement in Southeastern ecosystem function by 2060, along with interim goals, and tracks progress against it annually. This singular goal is credited with attracting new partners, funders, and collaboration opportunities to the effort.

Having agreed-upon, overarching goals to orient the partnerships and their activities appeared to be essential for giving the groups direction; quantifiable goals helped to determine the resources and effort needed to achieve the desired outcomes. Indeed, the NAS report on the LCCs concluded that a key reason for the system's failure to gain traction was the lack of a specific, compelling goal to motivate participants. A 2002 U.S. General Accounting Office (GAO) report came to a similar conclusion on the National Invasive Species Council (NISC) effort. At the same time, the models we looked at also recognized the importance of the ability to adjust goals based on evolving information and realities on the ground - and included mechanisms to do so.

2. An effective system to track and report on progress, as well as adjust goals and management approaches over time, is important to sustaining a large collaborative effort.

The models we evaluated highlighted both the importance and difficulty of developing an effective and transparent monitoring and adaptive management construct. For instance, over its 35-year history, the Chesapeake Bay Program (CBP) went through an iterative process of developing more refined goals and processes for tracking and reporting on progress, prompted in part by critical GAO reports pointing to the inefficacy of its system. The CBP now has quite a robust system for linking measurable goals to outcomes, adjusting goals as needed, and publicizing results that is worth looking at as a model for how to implement an adaptive management framework. The CBP experience also reveals that the purpose and function of adaptive management is not always well understood by all stakeholders. This indicates a

⁸ National Academies of Sciences, Engineering, and Medicine, *A Review of the Landscape Conservation Cooperatives*, 71.

need to familiarize participants with the adaptive management process as well as to develop tools such as the Strategy Review System to help with its application.

3. Partnerships' quantitative goals need to be viewed within the larger system context to appropriately evaluate their success.

The models' effectiveness in achieving their desired outcomes, however, is a challenging question. There has been limited research to date into the effectiveness of collaborative groups in terms of environmental outcomes, due to the challenges of linking environmental data to the groups' activities.^{9,10} In several of the cases we reviewed, it seems the collaborative groups are not making progress on some of their key indicators or only just keeping up with ongoing resource degradation - for example, the health of the Chesapeake Bay ecosystem recently maintained its D+ grade, with improvements in some areas offset by declines in others.¹¹ The Playa Lakes Joint Venture (PLJV) also acknowledged the need to do more to offset declines, observing that while 150 playas were restored in 2017, 328 others lost functionality in that time.

While such a lack of progress could be interpreted as a shortcoming of collaborative efforts, we heard from several interviewees that they did not view it in that light, cautioning against an over-reliance on specific quantitative indicators (particularly habitat goals) because of the complexity of the systems. Furthermore, they emphasized the importance of offsetting declines - even if overall progress seems slow or insufficient. It is important to consider what the resource conditions would be in the absence of the partnership effort. According to one interviewee, "Habitat loss is occurring faster than protection . . . In the long term you're going to be overwhelmed, it can be depressing. We don't look at it that way - [we focus on] finding what we can do now to reduce the rate of decline. Who knows what will happen in the future?" As suggested in this quote, collaborative groups are only one actor within the overall system context, which is comprised of elements such as policy and legal frameworks and resource conditions that can also significantly influence outcomes.¹²

Another interviewee pointed to possible problems with accurately measuring and accounting for the impacts, further cautioning about relying too heavily on particular quantitative metrics. Therefore, although measurable goals play an important role in helping a collaborative to focus its efforts in the areas where it can have the most impact, avoiding an over-emphasis on those goals and taking a longer-term, more holistic view of the qualitative outcomes can be important for continuing to move forward.

⁹ Biddle, "Improving the Effectiveness of Collaborative Governance Regimes," *Journal of Water Resources Planning and Management*, 143, no. 9 (2017): 2; Kootz et al., "Assessing Collaborative Conservation," *Society and Natural Resources*, 33, no. 4 (2020).

¹⁰ While we looked at the collaborative governance literature, a reviewer noted that there is a significant amount of literature showing positive outcomes in the collective impact field (for example, see https://ssir.org/articles/entry/does_collective_impact_really_make_an_impact). We did not have the opportunity to review the collective impact literature for this study, but it may be worth looking at for examples of positive outcomes of collaborative groups.

¹¹ Rachel Felver, "Chesapeake Bay sees health score decline by one point, but retain D+ grade," January 6, 2021, https://www.chesapeakebay.net/news/blog/chesapeake_bay_sees_health_score_decline_by_one_point_but_retain_d_grade.

¹² Kirk Emerson and Tina Nabatchi, *Collaborative Governance Regimes*, 40.

BALANCED AND INCLUSIVE REPRESENTATION

4. Diverse, balanced, and inclusive partnerships were a strength of the collaborative models.

Balanced and inclusive representation is a hallmark of collaborative bodies and one of the tenets of principled engagement, which is a component of successful collaboration dynamics.¹³ Indeed, diverse and inclusive partnerships were a highlighted feature of all the models we reviewed, and many models credited their broad and diverse memberships with bringing needed expertise, resources, innovation, and funding to the table. The Intermountain West Joint Venture (IWJV) and the PLJV pointed to their effort to conceptualize their goals broadly as fundamental to bringing in a range of partners who would otherwise not necessarily engage in bird conservation. For example, the PLJV developed a scientific understanding of the role of playas - essential bird habitat - in the recharge of the Ogallala Aquifer. Communicating around the need to preserve this ecological function, the PLJV was able to build innovative partnerships with the agricultural community as well as municipalities relying on the aquifer for drinking water. The IWJV has had similar success in its messaging around water - “the natural resource issue that defines the West” - to preserve wetlands habitat not only for birds but also for a range of human uses involving a broad swath of partners.

In the context of the sagebrush biome, therefore, it is worth considering how to shape the overall vision for the collaborative effort in a way that it is broad and inclusive enough to bring in a range of partners - while keeping the effort focused on a common purpose. In order to create such a vision, one interviewee observed, it is important to bring in the range of potential partners into the effort early on, when plans are being developed.

5. It is important to focus on diversity and inclusivity from the outset of the partnership, as well as be prepared to support engagement capacity when needed.

Although the models have had a focus on diverse partnerships, they have not necessarily had success in involving Indigenous or other historically marginalized communities. Some noted the difficulty in reaching these communities or insufficient community capacity to engage in collaboration. Among the models we looked at, the CBP, the Northwest Boreal Partnership, and the Crown of the Continent have a focus on engagement of Indigenous and/or underserved communities. The CBP recently developed specific objectives in a goal area around such engagement and is still working on implementation. The Crown of the Continent has had an explicit focus on partnerships with Tribes and First Nations since its founding in 2007, while the Northwest Boreal Partnership has reoriented to focus on partnerships with Indigenous communities as an integral part of its work. This more inclusive partnership has called for a revisioning of the effort and how it functions, necessitating a revision of the strategic plan. When a diverse range of affected stakeholders are brought into the collaborative effort, it helps the group develop a more holistic view of both the issues and the potential solutions. Such a broadening of perspectives reinforces the importance of making a concerted effort to bring those stakeholders in at the outset - and allocating the necessary time and resources to do so, helping to support engagement capacity as needed. This could involve activities such as engaging in additional outreach, providing meeting summaries or other needed materials, offering capacity-building trainings, or providing travel and participation stipends.

¹³ Emerson and Nabatchi, *Collaborative Governance Regimes*, 59-60.

These efforts at inclusivity in collaborative partnerships can also be viewed in the larger context of ushering in needed changes at many institutional levels. As an interviewee pointed out, “[the work in diversity and inclusion] is a larger piece of addressing the long history of inequities that continue to be ever-present in the social and institutional fabric of our country. Some groups . . . recognize that addressing these inequities directly in their work is critical not only to the successes in achieving their mission and goals, but it is critical to empower marginalized communities to advocate for their needs and to have a central role in leadership in environmental science and conservation efforts.”

ACCESS TO NEEDED KNOWLEDGE AND SCIENTIFIC OR TECHNICAL INFORMATION

6. In the models we considered, participants recognized the importance of science-based decision making.

Among the models, there were a variety of approaches and tools for bringing scientific and technical information to bear. These included forming scientific advisory committees, having scientific and technical experts available for consultation, conducting studies to help determine the collaborative’s priorities, and using an adaptive management framework to integrate new information into subsequent management decisions. Some groups had monitoring programs and used modeling to help determine the potential outcomes of management decisions on the resources. Both the NAWMP and the CBP went through several revisions and updates to their plans that incorporated new scientific information.

The process of developing the scientific and technical data or tools often takes place over a longer timeframe, requiring updates to priorities and plan revisions as new information comes to light. Once that information is developed, it is important to help stakeholders in decision-making bodies translate that information into management terms and understand how to make management decisions in the context of scientific uncertainty.¹⁴ As noted above, it is a valuable staff or leadership function to help participants understand this iterative process and guide them through the steps. In the CBP’s case, the partnership has developed the well-articulated process of the Strategy Review System.

7. There is a movement toward integrating more cultural, social, and economic knowledge into decision making.

A previous National Center BLM-sponsored report, which focused on identifying best practices and roles for government agencies to support landscape-scale conservation, identified incorporating different types of information and ways of knowing - including social, economic, and cultural - into landscape-scale decision making as a “central need.”¹⁵ A few of the models we reviewed are increasing their consideration of social science in management decisions. The NAWMP, for example, has a human-centered goal around better understanding what motivates the public to become involved in conservation. The PLJV’s focus on understanding the human relationship to the playas helped it to build new and innovative partnerships.

Moreover, research on the effectiveness of watershed partnerships has shown that those that rely heavily on a “technical” knowledge of the environment can have a lower perceived sense of success among participants than those that integrate a more holistic or historical knowledge of the environment

¹⁴ ECO Resource Group, “Advancing Multi-Scale Place-Based Conservation and Development: Part I Data Report Including Discussion of Potential Federal Roles” (unpublished report, October 2018), Microsoft Word file, 33.

¹⁵ ECO Resource Group, “Advancing Multi-Scale Place-Based Conservation and Development,” 32.

(e.g., local communities, particularly Indigenous).¹⁶ The Crown of the Continent and Northwest Boreal Partnership are the only models we reviewed that have focused on integrating a different type of knowledge in the form of Indigenous or Traditional Ecological Knowledge (IK/TEK) into their programs. These partnerships highlighted the importance of bringing different types of knowledge to the table in order to develop a more comprehensive understanding of the issues at hand, as well as of possible solutions. It is important to note that there may be data sovereignty and confidentiality concerns when working with IK/TEK, so it is essential to identify ways to address these potential concerns with Indigenous community partners.

SUFFICIENT AND SUSTAINABLE FUNDING

8. Access to sufficient funding over time is an important factor in the success and sustainability of a collaborative body.

The models we examined have succeeded in securing funds to maintain and grow their partnerships, often diversifying their funding sources over time. Two of the key models, NAWMP and the CBP, benefit from core funding from Federal agencies that directly support the partnership. The NAS report on the LCC system and the GAO report on the NISC both pointed to the lack of dedicated Federal funds as a key weakness in those collaborative efforts. Moreover, although partners can often bring their own resources to support conservation activities, interviewees observed that having access to additional funds through the partnership can be a significant incentive for participation.

While Federal funds can provide an important source of support, the uncertainties in Federal appropriations can also bring the risk of delays; recipients therefore often saw the value in seeking other sources of funds to both expand the base and establish stable resources that provide for staff salaries and other ongoing expenses. After the loss of Federal funding to the LCCs, for example, the Northwest Boreal Partnership also sought funding from other sources such as NGOs and private foundations, in addition to continuing to seek partial funding from government partners.

The models we reviewed often draw on their partnerships to bring a variety of funding sources to the effort. In the Chesapeake, for example, the partners use their own resources to carry out their common goals. The program also has a Budget and Finance Work Group devoted to coordinating funding-related activities throughout the partnership. In the case of the PLJV and the Blackfoot Challenge, board members contribute funds to the organization and participate in outreach to funders. In another approach, the Northwest Boreal Partnership is in the early stages of forming a Canada & Transboundary Funding Task Force to develop funding based on collaborative project opportunities, which will help balance the work and staffing across the two countries.

At the same time, government funds remain a significant support for these partnerships - exemplified by the IWJV's formation of a Government Relations Committee, which continues to cultivate relationships with congressional appropriators. The large landscape conservation assessment report identified many of the limitations of Federal funding, noting that Federal agency funds reside within annual budgets and appropriations cycles and are subdivided among bureaus with different priorities, hampering efforts to

¹⁶ Biddle, "Improving the Effectiveness of Collaborative Governance Regimes," 9.

plan and support the kinds of multi-year, cross-cutting projects needed on the landscape scale.¹⁷ The report added that Federal agencies can play a valuable role in collaborative partnerships by seeking ways to work across silos to bring funds to the table, identify new and innovating sources of funds, pool resources, and provide matching funds to supplement other sources. Some examples of innovative funding opportunities cited in the large landscape assessment include the following (for the full list, see [Appendix G](#))¹⁸:

The Natural Resources Conservation Service's (NRCS) Regional Conservation Partnership Program, authorized by the 2014 Farm Bill, used partnerships to stretch and multiply conservation investments and reach conservation goals on regional or watershed scale with greater certainty of funding. Unlike past annual allocations, this program was designed to support the Sage Grouse Initiative for 4 years through the life of the 2014 farm bill (NRCS 2015).

Members of the NE Association of Fish and Wildlife Agencies came together to pool and leverage funds from each state for regional and landscape-scale conservation efforts through the Regional Conservation Needs program. Additionally, in 2015, a Blue Ribbon Panel convened by the Association of Fish and Wildlife Agencies recommended a new approach for funding fish and wildlife conservation efforts that could potentially direct up to \$1.3 billion per year in existing oil and natural gas revenues to the conservation of Species of Greatest Conservation Need identified in State Wildlife Action Plans (Association of Fish and Wildlife Agencies (AFWA) 2017).

Collaborative partnerships can likewise benefit from thinking broadly and creatively about possible funding sources. During the development of the North American Wetlands Conservation Act (NAWCA), for example, participants recognized that the interest accruing on funds from the Pittman-Robertson Act, an excise tax on ammunition and firearms, could be redirected to funding waterfowl conservation.

LEADERSHIP AND STAFFING

9. The engagement of high-level leadership at the outset and throughout the process can be an important driver for bringing partners together and sustaining their motivation.

In *Collaborative Governance Regimes*, the authors list initiating leadership among the four drivers needed for a collaborative effort to emerge.¹⁹ The AFWA President's Task Force on Shared Science and Landscape Conservation Priorities observed that successful partnerships require effective communications, strong leadership, and dedicated and fully supported coordination functions.²⁰

Although in our review we could not find information on the founding leadership for all the models, there were certainly examples of strong leadership at the outset of collaborative efforts that served to bring the partners together. In particular, the signing of the Chesapeake Bay Agreement among the

¹⁷ ECO Resource Group, "Advancing Multi-Scale Place-Based Conservation and Development," 25.

¹⁸ ECO Resource Group, "Advancing Multi-Scale Place-Based Conservation and Development," 25-6.

¹⁹ Emerson and Nabatchi, *Collaborative Governance Regimes*, 47.

²⁰ Jonathan Mawdsley et al., "AFWA President's Task Force on Shared Science and Landscape Conservation Priorities: Final Report," (Washington, DC: Association of Fish and Wildlife Agencies, 2020), 18.

State governors, the mayor of the District of Columbia, the Environmental Protection Agency (EPA) administrator, and the chair of the Chesapeake Bay Commission lent the program credibility and legitimacy and set the stage for the involvement of the necessary staff in each of the jurisdictions and at EPA. These leaders remain involved, supported by appropriate staff, and their annual meetings bring attention and authority to the work of the CBP. In the case of the NAWMP, the Plan Committee has been credited for its vital role in establishing the partnership's mission and providing strong, visionary leadership. Although a variety of parties could play the role of initial convener for a collaborative, establishing leadership at a high level can bring resources, direction, and the engagement of relevant staff at the partner organizations.

10. Dedicated coordinators, ideally independent neutral parties, are essential to the long-term survival of the partnership.

The models we reviewed recognized the importance of having someone in the coordination role and all have dedicated staff to coordinate and run the partnership's operations. The large landscape assessment report pointed to the essential role of "backbone" organizations for collaborative partnerships. These organizations take on the management of the day-to-day activities and coordination of the partnership.²¹ Some models have Federal staff in the coordination role, while others have their own staff. According to Biddle's research on water partnerships, the agency role is best limited to providing financial and technical resources to the collaborative rather than coordinating its day-to-day operations. The collaborative groups operated best when allowed to self-organize.²² In the case of the CBP, where EPA is in the role of both coordinator and regulator, those dual roles can hamper the agency's ability to effectively work as coordinator - a dynamic which was exacerbated with the establishment of the bay-wide Total Maximum Daily Load (TMDL) and EPA's added role in overseeing the jurisdictions' efforts to comply. The best approach, therefore, seems to be separating out the agency's roles as convener, funder, advisor, and expert from the staffing role, which can be better performed by an independent, neutral party. Indeed, some interviewees noted that having independent, neutral staff aided their fundraising efforts.

In the interest of preventing staff turnover, it is necessary to have sufficient and stable funding for staff positions. As mentioned above, the need to secure funding for staff was a key reason some of the partnerships sought to diversify their funding streams. Finally, several of the partnerships with fundraising success have dedicated one or more staff to communications and outreach. The IWJV, which has been successful in building innovative partnerships, also has a staff member focused on expanding partnerships.

APPROACH TO DECISION MAKING AND CONFLICT RESOLUTION

11. A structured approach to decision making and conflict resolution is valuable for complex partnerships to provide clarity, transparency, and promote progress toward goals.

As voluntary partnerships, the models tended to use consensus as their form of decision making. We could not find detailed information on this for all the models, however. The CBP has a well-articulated decision-making process that defines "consensus" and uses a consensus continuum model, useful for

²¹ ECO Resource Group, "Advancing Multi-Scale Place-Based Conservation and Development," 21-22.

²² Biddle, "Improving the Effectiveness of Collaborative Governance Regimes," 10.

allowing for a range of opinions while allowing the group to move forward. If consensus cannot be reached at lower levels of decision making, the issue is elevated; at the higher levels of organization, the group can resort to a supermajority vote if consensus cannot be reached.

In our interviews, we heard that there was not a significant amount of conflict within the groups that would require third-party facilitation. Partnership staff or committee chairs often serve in the role of facilitator. In the case of the Chesapeake, the Program Office maintains a contract with a third-party facilitator for when the need arises; that contractor also conducts facilitation training for those in a leadership role.

RELATIONSHIPS AMONG PARTICIPANTS

12. Building trust through careful work to learn about participants' interests and set joint goals that align with shared interests is central to the collaborative enterprise.

Building trust among a diversity of participants is the lifeblood of collaborative groups. As the AFWA Task Force observed, partnership success “depends on relationship building and operates from a foundation of trust among a broad diversity of partners.”²³ Several of the interviewees mentioned that the non-regulatory nature of their groups helped to foster trust. One interviewee noted that having independent funding also helped with trust-building.

In *Collaborative Governance Regimes*, Emerson and Nabatchi describe the evolution of shared motivation, one of the three main components of collaboration dynamics, as follows:

“At the outset, participants’ primary, if not only, perspective and motivation stem from their own interests and those of their represented groups. If these interests are satisfied, then participants are more likely to continue working together. As the cycling of principled engagement continues, participants can also develop a shared motivation that fosters their emerging identification with, and ultimately reinforces their dedication to, the [collaborative group].”

Given that the models we were looking at were generally known as successful and had been established for some time, one might expect that the groups had firmly reached the ground of shared motivation in which they have a sense of commitment and dedication to the collaborative group. The interviewees told us a more nuanced story, however. They described the importance of ensuring that the collaborative’s efforts were aligned with the interests of the partners. While there may be a sense of joint enterprise, when asked whether participants trust each other, interviewees responded that they trusted that participants would act in ways aligned with their own interests, emphasizing the importance of developing goals that can speak to a broad range of interests. These observations reinforce the importance of being attentive to potential partners’ interests, particularly at the outset, and seeking to identify broadly shared goals that can speak to a range of relevant partners. The IWJV and the PLJV have done exactly this in conceptualizing their programs around water and the Ogallala Aquifer, respectively. One interviewee advised, “keeping people together with shared values and then scaling it down to a landscape that makes sense, so they can see the benefit to themselves.”

²³ Mawdsley et al., “AFWA President’s Task Force,” 18.

Furthermore, it is important to think about participants' incentives for engagement within the system context, considering why relevant partners might wish to be involved and what they could gain from their involvement that they could not achieve without it. The ability to answer these questions, of course, depends on understanding the perspectives of those potential partners. The large landscape assessment report notes that "streamlined and balanced regulation can be a strong incentive for landowners to engage in landscape-scale conservation . . ." ²⁴ The report also cites the incentives for landowners and other stakeholders in avoiding the costs associated with the protection of at-risk species, pointing to the Bi-State Sage Grouse effort in California and Nevada, in which Federal and State agencies worked together to clarify for partners what would be needed to avoid an Endangered Species Act listing, as well as to provide funding and technical support for the effort.

13. To build trust, partnerships must engage and invest in relationship-building.

As one interviewee pointed out, the players getting to know one another is not a negligible piece of the puzzle, but is essential to building the relationships and trust necessary to sustain the collaborative effort. The interviewee highlighted the value of regular, perhaps annual, retreat-type workshops held in locations that allow for field trips to view the resource or projects taking place as well as relationship-building among new and existing participants. These workshops should include time for the work of the collaborative to take place, orientation for new members, and interactive field activities to familiarize participants with the work on the ground and get to know each other. The Blackfoot Challenge's focus on building relationships has succeeded in creating a strong sense of loyalty and affinity with the organization among participants, with one interviewee in a previous study describing it as "a serious organization that never forgets to have fun." Similarly, one of the key lessons learned from the Crown of the Continent's assessment of its programs was "never underestimating the value of meeting face-to-face, welcoming partners, and establishing relationships." Collaborative groups, therefore, should allocate the necessary time and resources for the important work of relationship-building.

Finally, building trust can be difficult to do in an environment of high turnover, as is common at voluntary organizations. Research has shown turnover to be a major driver of declining effectiveness of collaborative groups. ²⁵ To address this, the staff needs to be charged with, among other things, consistent outreach to and training for new participants and those who are turning over. Some of the tools that can be useful in this outreach include:

- A succinct and compelling summary of the partnership's history, goals, impact, and relevance.
- An orientation package that includes the background, operating procedures and protocols of the group, and updated information on the status of the work and any key questions confronting the group.
- A PowerPoint presentation or webinar to share key information on the group with new audiences.
- Regular workshops to get to know participants as described above.
- Travel funding for participants whose organizations do not have the resources to attend meetings. This funding should be built into the partnership's budget.

²⁴ ECO Resource Group, "Advancing Multi-Scale Place-Based Conservation and Development," 29.

²⁵ Nicola Ulibarri et al., "How does collaborative governance evolve? Insights from a medium n-case comparison," *Policy and Society* (2020): 16.

PARTNERSHIP STRUCTURE

14. When designing a partnership governance structure, it is important to be attentive to the involvement of different types of stakeholders at different scales, the connections and communication among organizational levels, and the incentives for participation at the various scales.

Although not explicitly identified as an assessment factor at the outset, one aspect of the partnerships that emerged as significant is the structure of the partnerships - in particular, the way that central coordinating and leadership entities relate to implementation bodies within the partnership. As the AFWA Task Force observed, there is no single structural formula for partnerships to be successful.²⁶ Clement et al. point out, however, that when the activities of a network must be implemented across jurisdictions, more centralized coordination is needed - and at higher levels of governance.²⁷ Both the NAWMP/Joint Venture (JV) and the CBP models spanned large landscapes and covered multiple jurisdictions and scales, ranging from the grassroots implementation level to national or even international policy levels. They both developed complex, tiered structures to set high-level direction for the overall effort while implementation takes place on the regional or local level.

When designing any collaborative enterprise, it is important to keep in mind three types of stakeholders - a smaller core group of vested stakeholders, some of whom will be leaders and decision makers; a larger group of interested stakeholders who will be involved in implementation of activities and/or will be affected by the outcomes; and finally, the wider public that needs to be kept apprised of the organization's efforts (and perhaps participate in them). The CBP and NAWMP cases offer somewhat different approaches to incorporating each of these types of stakeholders into their collaborative efforts.

For the CBP, the structure is well-defined and hierarchical, with an established decision-making process developed over decades. The EC, at the highest level, serves to commit the jurisdictions to a common purpose and keep both staff focus and public attention on the initiative. The engagement of these high-level leaders is necessarily supported by staff on the Principals' Staff Committee who are more connected to the work of the partnership. The Management Board oversees the overall coordination and implementation of the partnership's goals, while the GITs are charged with coordinating implementation in specific goal areas. The many implementing partners, including Local Governments, universities, and NGOs, are connected to the organization through participation on the GITs and the work groups, or State and Local Government partners may be recipients of CBP implementation grants. Local Government, citizens', and scientific advisory groups provide input to the CBP as well as conduct outreach to the larger community of stakeholders. There is also a Communications Work Group to assist with outreach across programs and jurisdictions.

It is worth noting that when the Chesapeake Federal Leadership Committee was established by executive order in 2009, it created a parallel structure that led to some uncertainty about the locus of the program's leadership. Furthermore, the lines of the authority within the CBP do not necessarily align with the authority structures outside of it, with the result that participants may be less motivated to

²⁶ Mawdsley et al., "AFWA President's Task Force," 18.

²⁷ Sarah Clement et al., "Understanding Effectiveness in its Broader Context: Assessing Case Study Methodologies for Evaluating Collaborative Conservation Governance," *Society and Natural Resources*, 33, no. 4 (2019), 467.

fulfill their commitments within the program. When designing a governance structure, therefore, it is important to provide clarity of leadership for accountability purposes, as well as to be aware of the incentives and motivations for participants at each level of the organization.

In the case of the NAWMP system, the founding members intended from the outset to create a continental vision that would be implemented at the regional or local scale through the JVs. The Plan Committee, with high-level representatives from the participating countries, has been credited with providing a clear mission and vision as well as strong leadership. The JVs operate relatively independently with their own management boards and formally consult with the Plan Committees every 3-5 years, although the Plan Committee no longer approves the JVs' plans. The JVs themselves are connected to the implementing organizations on the grassroots level either through their management board membership, most of which have staff and/or programs working on the ground with other partners. On-the-ground organizations may also be recipients of grants from the JV or receive matching funds from the JV for NAWCA grants. These mechanisms allow the JV to stay connected with the activities, opportunities, and challenges within the region.²⁸ Finally, in terms of broader public outreach, the Plan Committee has a Leadership/Communications/Funding Work Group, and the individual JVs may have staff or programs dedicated to outreach and communications.

Leadership within the NAWMP system is complex, a consequence of the evolution of bird conservation efforts over decades. The North American Wetlands Conservation Council (Council) is responsible for reviewing proposals for habitat conservation projects seeking NAWCA funds. The Council's spending recommendations are approved annually by the Migratory Bird Conservation Commission. Members of the four migratory bird Flyway Councils participate on the Plan Committee and the Council. While there is some overlap in membership or connecting liaisons between the leadership entities, a common request of the NAWMP leadership is improved coordination and communication among the various entities, including the Plan Committee, JVs, working groups, Flyway Councils, partner agencies, NGOs, and the Council. At the same time, although the formal connections between the bodies may not be robust, there is a significant degree of informal connection, given that many of the same people are often wearing different hats in different venues within the waterfowl management community.

Looking at these two examples, it is clear that important elements for consideration in the design of a partnership structure include the membership and authority of the leadership body, as well as the strength of its connections and communication with implementation bodies at the regional and grassroots levels. The lines of authority within the partnership should be considered in light of external leadership structures, along with the incentives of participants at each level to engage and carry out their commitments.

QUESTIONS FOR THE DEVELOPMENT OF A SAGEBRUSH PARTNERSHIP MODEL

These lessons raise a set of questions about how to apply them in the context of the sagebrush biome. The advisory committee may wish to consider the following questions in conjunction with the results of the sagebrush biome stakeholder assessment:

²⁸ Jeff van Steeg, personal communication on 2/3/21.

- Who needs to be involved early on to help shape the effort? What incentives do they have to be involved? How can key partners, such as Tribes, be engaged at the outset?
- What are possible sustainable sources of funding? What Federal and State funds can provide a regular funding source? What could partners bring to the table? Are there innovative sources of funds that can be brought to bear (e.g., Pittman-Robertson)?
- How could high-level leadership in the region be engaged to launch and give legitimacy to the sagebrush effort?
- In the design of a governance structure for the sagebrush biome:
 - How can the different types of stakeholders (core, interested, public) be involved?
 - How can leadership provide a clear vision, accountability, and sufficient communication with the implementing entities?
 - How can the organization be connected at the various scales?
 - What incentives do participants at each level have to be involved (e.g., mission alignment, potential funding, leadership commitment)?

APPENDICES

APPENDIX A: PARTNERSHIP GOVERNANCE LITERATURE REVIEW

To develop an understanding of the essential elements of partnerships and their governance, we reviewed some of the relevant works in the field. While this is not a comprehensive review of the literature, it allowed us to identify some key elements for functional and successful collaborative bodies that we could then use to assess the models. Those elements are the following:

- Goals and measurable impact
- Balanced and inclusive representation
- Access to needed knowledge and technical/scientific information
- Sufficient and sustainable funding
- Approach to decision making and conflict resolution
- Leadership and staffing roles
- Relationships among participants

PARTNERSHIP GOVERNANCE DEFINED

Throughout the literature, there are sometimes overlapping definitions for terms such as “network,” “partnership,” and “collaborative.” For the purposes of this report, we chose the term “partnership” to emphasize the focus on retaining existing authorities within individual member organizations, using the following definition: an informal or more formalized arrangement (e.g., based on an agreement or legislation) where two or more autonomous entities “come together to exchange ideas, build relationships, identify common interests, explore options on how to work together, share power [and/or resources], and solve problems of mutual interest.”²⁹ For “governance,” we use the definition put forward by Emerson and Nabatchi, “the processes and structures of public policy decision making and management that engage people across the boundaries of public agencies, levels of government, and/or the public, private, and civic spheres to carry out a public purpose that could not otherwise be accomplished.”³⁰

GOALS AND MEASURABLE IMPACT

Goal-setting is certainly a foundational part of the life cycle of a partnership governance structure.³¹ Emerson and Nabatchi identify “consequential incentives,” defined as “internal issues, resource needs, interests or opportunities, or external situation institutional crises, threats, or opportunities that must be addressed,” as one of the key drivers in bringing a collaborative group together.³² From these consequential incentives, a nascent collaborative body needs to align its members by focusing on “tangible accomplishments, driven by shared priorities.”³³

Determining the success of a partnership effort can be a difficult endeavor. In the area of natural resource conservation in particular, measuring ecological outcomes can be more challenging than

²⁹ Scarlett and McKinney, “Connecting people and places,” 116. Our definition is adapted from this network governance definition.

³⁰ Emerson and Nabatchi, Collaborative Governance Regimes, 18.

³¹ Ulibarri et al., “How does collaborative governance evolve,” 2.

³² Emerson and Nabatchi, Collaborative Governance Regimes, 46.

³³ Mawdsley et al., “AFWA President’s Task Force,” 18.

measuring social, economic, and behavioral outcomes due to factors such as ecological variability, long time horizons, and difficulty in identifying causal chains.³⁴ According to Network Impact and the Center for Evaluation Innovation, an approach to considering the success of partnerships is to look at their results based on whether they are accomplishing what they set out to accomplish - or members' perception of such accomplishment.³⁵

Given that a natural resource partnership's goals can play out over a long time frame, it can be most useful to look at progress on interim outcomes that signal progress on the way to longer-term goals and intended impacts.³⁶ Interim outcomes can be assessed through monitoring, evaluation, and adaptive management.³⁷ A successful partnership needs the skills and tools to monitor and evaluate progress and assess what is and is not working.³⁸ Failure to meet the group's original goals could be due to shortcomings in the scientific and technical approach, but could also be attributed to the changing needs and priorities of the group.³⁹

BALANCED AND INCLUSIVE REPRESENTATION

One characteristic of initiatives that have achieved some measure of conservation success is that the members represent a broad coalition rallying around a shared goal.⁴⁰ According to Emerson and Nabatchi, principled engagement, one of the key components of collaboration dynamics, involves balanced representation from all "relevant and significant different interests."⁴¹ They note, "Balanced representation is an indicator of diversity - not only in terms of the participants at the table but also in terms of the ideas, beliefs, and perspectives relevant to the issue at hand."⁴² Of course, this diversity of perspectives can lead to conflict, calling for conflict management expertise among those leading or managing the partnership effort.⁴³

Several authors indicate that it is important to bring the participants together in the design and formation stage of a partnership to set goals, build norms, and establish relationships of trust.⁴⁴ Engaging a diversity of interests around a broader commitment contributes to the sustainability of the organization and its resilience to both internal and external changes.⁴⁵

³⁴ Biddle, "Improving the Effectiveness of Collaborative Governance Regimes," 2; Kootz et al., "Assessing Collaborative Conservation."

³⁵ Network Impact and Center for Evaluation Innovation, "Framing Paper: The State of Network Evaluation," (2014): 6.

³⁶ Network Impact, "Framing Paper," 6.

³⁷ Matthew McKinney et al., "Large Landscape Conservation: A Strategic Framework for Policy and Action," (Cambridge, MA: Lincoln Institute of Land Policy, 2010), 16.

³⁸ McKinney et al., "Large Landscape Conservation," 40.

³⁹ Mawdsley et al., "AFWA President's Task Force," 18.

⁴⁰ Mawdsley et al., "AFWA President's Task Force," 24.

⁴¹ Emerson and Nabatchi, *Collaborative Governance Regimes*, 59, citing Innes and Booher (1999).

⁴² Emerson and Nabatchi, *Collaborative Governance Regimes*, 59-60.

⁴³ Emerson and Nabatchi, *Collaborative Governance Regimes*, 60.

⁴⁴ Ulibarri et al., "How does collaborative governance evolve," 2 citing Mandell & Keast (2007); Emerson and Nabatchi, *Collaborative Governance Regimes*, 215.

⁴⁵ Ulibarri et al., "How does collaborative governance evolve," 2-3.

ACCESS TO NEEDED KNOWLEDGE AND SCIENTIFIC OR TECHNICAL INFORMATION

While the technical or scientific tools or databases called for will vary depending on the partnership, in general having adequate scientific and technical resources improves environmental performance.⁴⁶ An AFWA landscape conservation report highlights, for example, that “common lexicon, threat categories, shared databases and/or performance metrics...[are] characteristic of initiatives that have increased conservation success.”⁴⁷

McKinney et al. include gathering and sharing information as one of the steps in the development of a large landscape conservation strategic framework.⁴⁸ They state, “the first steps in developing a long-term strategic framework for large landscape conservation are to (1) create a common and coherent scientific database; and (2) prepare an annotated atlas to identify existing initiatives, priorities, and gaps.”⁴⁹

Biddle’s study of watershed partnerships, however, cautions against the over-emphasis of technical expertise and solutions at the expense of greater contextual and holistic knowledge.⁵⁰ Where there was a greater emphasis on technical solutions, partners contributing greater contextual knowledge perceived that the partnership’s efforts were not successful. She suggests that there may be different points throughout the life cycle of partnerships when each of these types of knowledge could be optimally brought to bear.⁵¹ Greater use of comprehensive, contextual knowledge could foster both improved trust and environmental performance of the partnership.

While incorporating scientific and technical knowledge is important to the collaborative’s success, Scarlett and McKinney caution that such information is not sufficient for solving large-scale environmental challenges and must be accompanied with an ability to navigate the often complex politics of the issue at hand:

The search for effective solutions to today’s natural resource problems is not simply a matter of building and sharing better data and knowledge. Policy making is both complex and wicked. Such efforts to collect more data, undertake more complex analysis, and add more computing power ‘reflect a naïve hope that science can eliminate politics.’⁵²

SUFFICIENT AND SUSTAINABLE FUNDING

As Biddle’s research on watershed partnerships concludes, adequate and sustained funding will improve environmental performance.⁵³ Dedicated resources are also a sign of sustained enthusiasm and commitment, and ultimately of the health of the collaborative body.⁵⁴ Furthermore, Emerson and Gerlak list not only the presence of resources, but also the shared access to them and better leveraging of

⁴⁶ Biddle, “Improving the Effectiveness of Collaborative Governance Regimes,” 7.

⁴⁷ Mawdsley et al., “AFWA President’s Task Force,” 24-25.

⁴⁸ McKinney et al., “Large Landscape Conservation,” 38.

⁴⁹ McKinney et al., “Large Landscape Conservation,” 38.

⁵⁰ Biddle, “Improving the Effectiveness of Collaborative Governance Regimes,” 9.

⁵¹ Biddle, “Improving the Effectiveness of Collaborative Governance Regimes,” 10.

⁵² Scarlett and McKinney, “Connecting people and places,” 119.

⁵³ Biddle, “Improving the Effectiveness of Collaborative Governance Regimes,” 10.

⁵⁴ Network Impact, “Framing Paper,” 6.

available resources as one of four factors for a collaborative body's successful adaptation to internal and external change – and thus long-term survival.⁵⁵

The sources and levels of funding will likely depend on the unique needs of the partnership organization. McKinney et al. suggest seeking multi-year, multi-agency funding commitments to ensure continuity of the long-term projects usually required in large landscape conservation efforts.⁵⁶ AFWA's landscape conservation report highlights that financial commitment from participants, in some cases, is a characteristic of initiatives with increased conservation success.⁵⁷

LEADERSHIP AND STAFFING

As might be expected, successful partnerships require - and benefit from - strong leadership.⁵⁸ According to Emerson and Nabatchi, initiating leadership provides the motivating force for participants in a collaborative to come together.⁵⁹ Who, then, should provide that leadership? Several authors observe that partnerships naturally evolve from being more informal and grass-roots to more formal and directed over time, so it may be that leadership roles look different through the lifetime of the organization.⁶⁰

One of the key findings of Biddle's research on watershed partnerships is that it is not sufficient to have the right participants involved - they must also be assigned to the right roles, which maximizes the effective decision making and activities of the collaborative body.⁶¹ Furthermore, she concludes that for the agency-based watershed partnerships in her study, the Federal Government's role within the collaborative is best limited to acquiring and providing financial and technical resources.⁶² With the agencies stepping back from the leadership role, the participants have greater flexibility to experiment, self-organize, and potentially increase the achievement of their desired outcomes.⁶³ In terms of leadership approaches, it is important for leaders to refrain from prescribing actions or solutions.⁶⁴ Such micro-management can reduce information sharing, trust, and participation.⁶⁵

Regarding staffing, a report on best practices to support landscape-scale conservation pointed to the essential role of "backbone" organizations for collaborative partnerships.⁶⁶ These organizations take on the management of the day-to-day activities and coordination of the partnership. Several scholars

⁵⁵ Ulibarri et al., "How does collaborative governance evolve," 2-3 citing Emerson & Gerlak (2014).

⁵⁶ McKinney et al., "Large Landscape Conservation," 46.

⁵⁷ Mawdsley et al., "AFWA President's Task Force," 24.

⁵⁸ Mawdsley et al., "AFWA President's Task Force," 18.

⁵⁹ Emerson and Nabatchi, Collaborative Governance Regimes, 47.

⁶⁰ Ulibarri et al., "How does collaborative governance evolve," 2 citing Provan & Kenis (2008).

⁶¹ Biddle, "Improving the Effectiveness of Collaborative Governance Regimes," 3.

⁶² Biddle, "Improving the Effectiveness of Collaborative Governance Regimes," 10.

⁶³ Biddle, "Improving the Effectiveness of Collaborative Governance Regimes," 10.

⁶⁴ Mawdsley et al., "AFWA President's Task Force," 18; Biddle, "Improving the Effectiveness of Collaborative Governance Regimes," 10.

⁶⁵ Biddle, "Improving the Effectiveness of Collaborative Governance Regimes," 10.

⁶⁶ ECO Resource Group, "Advancing Multi-Scale Place-Based Conservation and Development."

advise designating a lead organization or dedicated staff to manage the partnership.⁶⁷ Having a “dedicated and fully supported coordination functions to advance the interest of the partnerships” is a characteristic of initiatives with increased conservation success.⁶⁸

APPROACH TO DECISION MAKING AND CONFLICT RESOLUTION

In *Collaborative Governance Regimes*, Emerson and Nabatchi describe the three components of collaboration dynamics, one of which is “principled engagement.” Principled engagement itself encompasses the four elements of discovery, definition, deliberation, and determinations. As a collaborative group cycles through this iterative four-stage process of shared learning, participants must take part in open discussions, listen actively, consider others’ contributions, reflect, and assess, and confront conflict. The quality of this process, therefore, depends in part on the creation of space for dialogue and the skillful use of conflict resolution strategies.⁶⁹

A further element of Emerson and Nabatchi’s collaboration dynamics is “capacity for joint action,” which includes procedural and institutional arrangements.⁷⁰ The authors observe that the need for these protocols to manage repeated interactions among participants is widely recognized in the literature on collaborative governance. They also point out that the larger and more complex a collaborative body is, the greater its need for protocols and structures such as charters and bylaws.⁷¹ In Dupraw’s enumeration of the distinct qualities of landscape-scale collaborations, one of the five qualities is the need for self-governance mechanisms. She cites a partnership effort participant who observed, “We realize that if you do not make the rules, someone is going to make them for you. It is a lot easier to follow your own rules.”⁷² Finally, when evaluating a partnership, Network Impact and the Center for Evaluation Innovation state that looking at the organization’s infrastructure, such as its internal decision-making mechanisms, can provide a good indication of its overall health.⁷³

RELATIONSHIPS AMONG PARTICIPANTS

According to Emerson and Nabatchi, the third component of collaboration dynamics is “shared motivation,” which is composed of commitment, trust, mutual understanding, and internal legitimacy.⁷⁴ These elements of a collaborative system are not static but continuously cycling as relationships and connections among the participants evolve. The process of developing trust and understanding among participants helps sustain participants’ engagement in and commitment to the partnership.⁷⁵ Indeed, AFWA’s report on conservation partnerships indicates that effective relationship building and trust

⁶⁷ Biddle, “Improving the Effectiveness of Collaborative Governance Regimes,” 10 citing Milward and Provan (2006); Mawdsley et al., “AFWA President’s Task Force,” 18.

⁶⁸ Mawdsley et al., “AFWA President’s Task Force,” 18.

⁶⁹ Emerson and Nabatchi, *Collaborative Governance Regimes*, 59-61.

⁷⁰ Emerson and Nabatchi, *Collaborative Governance Regimes*, 68-69.

⁷¹ Emerson and Nabatchi, *Collaborative Governance Regimes*, 69-70.

⁷² Marcelle DuPraw, “Defining Landscape-Scale Collaboration as Used to Restore Forests and Reduce Catastrophic Wildfires,” *The Qualitative Report* 23, no. 11 (2018): 2810, quoting Bill Potter, Blackfoot Challenge, as cited in Wondolleck and Yaffee (2000).

⁷³ Network Impact, “Framing Paper,” 6.

⁷⁴ Emerson and Nabatchi, *Collaborative Governance Regimes*, 64-65.

⁷⁵ Emerson and Nabatchi, *Collaborative Governance Regimes*, 64.

among the partners is required for the success of the endeavor.⁷⁶ Scholars also point to building trust and relationships as a foundational element during the initial formative stage of a partnership.⁷⁷

⁷⁶ Mawdsley et al., "AFWA President's Task Force," 18.

⁷⁷ Ulibarri et al., "How does collaborative governance evolve," 2 citing Mandell & Keast (2007).

APPENDIX B: OVERVIEW OF KEY MODELS

NORTH AMERICAN WATERFOWL MANAGEMENT PLAN AND THE JOINT VENTURES

The most comprehensive migratory bird management effort for the United States is the North American Waterfowl Management Plan (NAWMP), signed by the U.S. and Canada in 1986, with Mexico also joining the agreement later.⁷⁸ NAWMP was not a plan in the conventional sense, but rather a clear definition of the causes of waterfowl population declines, an agreed upon statement of conservation goals, and the establishment of public-private collaboratives, known as JVs, as a framework for achieving these goals.

JVs, each with their own governance structure and funding to conserve critical wetlands over large geographic regions in the manner they deemed most appropriate for their particular geography and situation, are a unique, key characteristic of NAWMP. The JVs bring together a variety of partners - including bird conservation organizations, Local Governments, Tribes, industry, and State agencies - to implement the priorities established under NAWMP at a regional level. Twenty-two habitat-based JVs cover landscapes throughout Canada, Mexico, and the United States.⁷⁹ Three species-focused JVs study specific waterfowl species to better the science needed to properly manage these critical species.⁸⁰ Some JVs are staffed and funded by USFWS while others are staffed and funded more independently.

The other key characteristics of NAWMP are NAWCA—which has provided consistent grant funding to the conservation network—rigorous evaluation and adaptive management, and strong scientific and technical support for decision making.

GOALS AND MEASURABLE IMPACT

The original 1986 plan has been updated several times to incorporate new science and inform its overarching goals. The original plan was tightly focused on duck populations. The most comprehensive NAWMP revision, in 2012, expanded the goals--adding goal 3--and seeks to “achieve interrelated goals for people, waterfowl populations, and wetland conservation.”⁸¹

2012 NAWMP Goals:

- Abundant and resilient waterfowl populations to support hunting and other uses without imperiling habitat.
- Wetlands and related habitats sufficient to sustain waterfowl populations at desired levels, while providing places to recreate and ecological services that benefit society.

⁷⁸ “North American Waterfowl Management Plan,” U.S. Fish & Wildlife Service, last updated October 4, 2016, <https://www.fws.gov/birds/management/bird-management-plans/north-american-waterfowl-management-plan.php>.

⁷⁹ “North American Waterfowl Management Plan,” U.S. Fish & Wildlife Service.

⁸⁰ “North American Waterfowl Management Plan,” U.S. Fish & Wildlife Service.

⁸¹ NAWMP Plan Committee, “2018 NAWMP Update” (2018), <https://nawmp.org/document/2018-nawmp-update-english>, III.

- Growing number of waterfowl hunters, other conservationists and citizens who enjoy and actively support waterfowl and wetlands conservation.⁸²

From these high-level goals came an accompanying Action Plan with updated recommendations to achieve the Plan’s three goals.⁸³

The most recent 2018 NAWMP Update keeps the same goals from 2012 but emphasizes supporting strong connections between society and nature: “We need to understand how people view the societal benefits of waterfowl habitats and how we can use this knowledge to increase support for conservation.”⁸⁴ It contains new recommendations, replacing the 2014 recommendations.

2018 Plan Update Recommendations:

- Focus conservation actions on waterfowl habitat and population management objectives and incorporate social science into planning and program delivery.
- Help people understand the opportunities for conservation and outdoor recreation resulting from NAWMP and how society benefits from waterfowl habitat.
- Compel people to take action to conserve waterfowl habitat.
- Identify key geographic areas where the best opportunities exist to meet the needs of waterfowl and people.
- Establish a process to review and update Plan objectives every 10 years and provide guidance on implementation.
- Share knowledge from all work to integrate and balance the needs of habitat, waterfowl, and people.
- Bolster training programs for future waterfowl management professionals.
- Clearly define the roles and responsibilities of the Plan Committee and how it strategically structures itself and its functions to facilitate integration among the various technical work groups.⁸⁵

While these goals and recommendations come from the highest levels of NAWMP governance, they are thought of as innovative conservation approaches to help the waterfowl management community rather than a prescriptive path to follow. NAWMP has always used quantitative objectives on the regional and local level. This allows tailored monitoring to meet local needs.

As the 2018 Update notes, “No plan survives a generation unless it remains relevant to changing values, priorities, and economic and political pressures.”⁸⁶ The Plan has been assessed and reshaped several times to reflect updated science, changing needs, and on the ground lessons learned.

⁸² NAWMP Plan Committee, “2018 NAWMP Update,” VII.

⁸³ NAWMP Plan Committee, “Revised Objectives” (2014), <https://nawmp.org/document/revised-objectives-waterfowl-conservation-planning-addendum>.

⁸⁴ NAWMP Plan Committee, “2018 NAWMP Update,” 6.

⁸⁵ NAWMP Plan Committee, “2018 NAWMP Update,” 20-22.

⁸⁶ NAWMP Plan Committee, “2018 NAWMP Update,” X.

Given that the quantitative objectives are established on the JV/regional level, cumulative effects based on varied regional measures can often be difficult to discern. That said, the original NAWMP goal of restoring waterfowl populations to levels during the 1970s has been measured and achieved.⁸⁷ NAWMP, as originally established, was successful and has now grown its goals to achieve more.

BALANCED AND INCLUSIVE REPRESENTATION

NAWMP's design is based upon the premise that the accumulation of many local and regional conservation efforts can result in large landscape conservation impact.⁸⁸ As the 2018 Update notes, "Today, NAWMP is taking this approach and applying it to the social landscape as well. A second developing premise of NAWMP is that the cumulative effect of many local and regional public engagement actions will result in dynamic but sustainable social landscapes capable of attaining waterfowl conservation support."⁸⁹

As has been mentioned, NAWMP's scope is international, but its implementation is regional and flexible. Each JV is structured differently and includes different partners. Due to the regional scale of JVs, it is easier to identify who needs to be at the table for productive collaborative work; this would be nearly impossible at the national or international scale. As a result of this, outreach to partners usually happens at the JV level where implementation takes place. This outreach has included Tribes on certain projects, but not in a holistic sense.

On a national level, Ducks Unlimited has been an important partner in Canada, the U.S., and Mexico. Within the first five years of the Plan's establishment, Ducks Unlimited doubled its fundraising to 60 million a year--much higher today--most of which was poured into on-the-groundwork toward Plan objectives. They, along with the NRA and other big influencers, have also lobbied for NAWMP needs on Capitol Hill.

The Plan Committee has 18 members, 6 from each country.⁹⁰ The U.S. has two USFWS representatives and one State representative from each of the migratory bird flyways--which are four basic bird migration routes in North America. Canada has Federal and Provincial Government and non-profit representatives. Mexico has Federal Government, university, business, and non-profit representatives. Each country's natural resource agency has a permanent seat on the Plan Committee while all other seats have a three-year rotation. There is a two-term limit for the three-year seats.

Mexico joined NAWMP several years after its creation once there was more of a fiscal incentive to do so. Mexico's objectives have always been different from the U.S. or Canada; while the U.S. and Canada focus heavily on public hunting programs, Mexico focuses more on biodiversity projects and projects that help local economies. These differing objectives and differing cultures in how government functions

⁸⁷ NAWMP Plan Committee, "Continental Progress Assessment Final Report," (2007), <https://nawmp.org/document/continental-progress-assessment>.

⁸⁸ NAWMP Plan Committee, "2004 Implementation Framework" (2004), <https://nawmp.org/document/2004-implementation-framework>, 44.

⁸⁹ NAWMP Plan Committee, "2018 NAWMP Update," 17.

⁹⁰ NAWMP Plan Committee, "2018 Update Addendum: PC Roles and Responsibilities" (2018), <https://nawmp.org/document/2018-update-addendum-pc-roles-and-responsibilities-english>, 4.

have caused minor stress points. Mexico’s history of participation has not been from a lack of inclusion but a matter of priority on their part.

ACCESS TO NEEDED KNOWLEDGE AND SCIENTIFIC OR TECHNICAL INFORMATION

The NAWMP Science Support Team (NSST) facilitates scientific collaboration and communication among the Plan Committee, Federal wildlife agencies, and JVs as well as “provides technical advice to the Plan Committee to help strengthen the biological foundations of the plan and facilitate continuous improvement of plan-related conservation programs.”⁹¹ This helps to set priorities and see where the biggest return on investment will come from.

Mirroring NAWMP’s more recent emphasis on their third, people-centered goal—growing number of waterfowl hunters, other conservationists and citizens who enjoy and actively support waterfowl and wetlands conservation—NSST is also focusing on the social sciences. They are looking to understand public motivations, especially around conservation.

NSST is made up of a national representative from each partner country, a technical representative from each JV and flyway council, and representatives from NSST working groups. Working groups and JV scientists also provide technical guidance.

The role of JV scientists is, in part, to set regional habitat objectives, informed by international, NAWMP-level population objectives. A structural concern for NAWMP is that unreliable or inconsistent approaches to regional objectives will result in unreliable or inconsistent objectives across the whole. The most extensive assessment of NAWMP, done in 2007, identified concerns with certain JVs’ population abundance objectives being tied strongly enough to continental population goals. From this concern grew an NSST Committee to review JV approaches and provide recommendations. They found in their workshops that even similarly situated JVs’ population objectives varied and were often not linked to NAWMP goals. Through these workshops the NSST and JVs worked “toward a more uniform and integrated approach for establishing regional population abundance objectives and ultimately more effective waterfowl habitat conservation at the continental scale.”⁹²

SUFFICIENT AND SUSTAINABLE FUNDING

Habitat projects in support of the Plan are often funded through NAWCA grant programs. The title is broader in scope, focusing on all wetlands and is available for projects outside the purview of NAWMP as well. NAWCA uses the interest earnings from Pittman-Robertson funds—an excise tax on firearms and ammunition, whose funds go to each state through the Department of the Interior—prior to their distribution to the states.⁹³ In addition to these funds, NAWCA also receives an annual appropriation,

⁹¹ “North American Waterfowl Management Plan,” U.S. Fish & Wildlife Service.

⁹² Mark J. Petrie et al., “Guidelines for Establishing Joint Venture Waterfowl Population Abundance Objectives,” *North American Waterfowl Management Plan Science Support Team Technical Report No. 2011-1*, (2011): 3.

⁹³ “North American Wetlands Conservation Act,” *Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service*, U.S. Fish & Wildlife Service, accessed December 21, 2020, <https://www.fws.gov/laws/lawsdigest/NAWCACT.HTML>.

currently around \$30 million a year, as well as Federal duck stamps and fines and forfeitures collected under the Migratory Bird Treaty Act.⁹⁴

The North American Wetland Conservation Council is directly responsible for allocating NAWCA money. Grant applications are competitive, and most are made by conservation organizations that may be members of JVs.

Federal grant dollars from NAWCA must be matched for NAWMP projects, often at a 2-3 match, sometimes larger. For NAWMP, much of the match money comes from partners at the JV level. This allows the money to go much further and ensures partners are more invested. Additionally, since NAWMP has consistently demonstrated its effectiveness, it has also received funding from State duck stamp programs. The NAWMP community also looks for funding opportunities through a variety of avenues and seeks to leverage other priorities to benefit waterfowl and wetland conservation.⁹⁵

LEADERSHIP AND STAFFING

The objectives for NAWMP leadership, set by creators and original Plan Committee members, was to provide leadership and funding at a continental scale and to allow the JVs and their boards freedom to operate at regional scales; the enterprise is viewed as a big partnership at all times. At the beginning that meant that leadership was focused on passing funding legislation and served as an outlet for other groups that were not bought in at the start. Ultimately, the Plan Committee's role is to provide plan leadership and plan management. The Committee oversees activities furthering the plan and facilitates major, large-scale, or long-term waterfowl discussions. They also update the plan as needed and provide leadership through goals and recommendations set out in the plan. The Plan Committee meets at least two times per year.⁹⁶

Plan Committee turnover is every six years or less, with governmental leaders moving positions from time to time and most seats on the Plan Committee rotating every three years. USFWS, Association of Fish and Wildlife Agencies, and organizations in Canada support the Plan Committee with staffing. Additionally, the Plan Committee has worked closely with consultants in the past who also played an essential continuity and institutional memory role that helped mitigate the impacts of frequent turnover.

A review of the Plan Committee highlighted consensus that the Plan Committee plays a vital role in establishing the mission of NAWMP and providing strong, visionary leadership. There was a common request for more communication and collaboration between NAWMPs entities: The Plan Committee, JVs, working groups, Flyway Councils, partner agencies, NGOs, and the North American Wetlands Conservation Council.⁹⁷

⁹⁴ "North American Wetlands Conservation Act," Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service.

⁹⁵ NAWMP Plan Committee, "2018 NAWMP Update," 18.

⁹⁶ NAWMP Plan Committee, "2018 Update Addendum," 4.

⁹⁷ NAWMP Plan Committee, "Report on Review of the Plan Committee" (2018), <https://nawmp.org/nawmp-update/report-review-plan-committee>.

That said, formally, every JV has an hours-long conversation on a rotating basis (3-5 years) with the Plan Committee regarding JV activities, changes to planning documents, etc. The Plan Committee even used to approve JV planning documents, but that kind of oversight has been dropped. Although there is limited formal connectivity, some JV board members are also members of a Flyway Council, and the Flyway Council has a seat on the Plan Committee. Additionally, some JVs participate in Flyway activities. Thus, there are informal communication routes as well. Some Plan Committee members also informally attend JV board meetings as a means of communication. Essentially, several the same people are wearing different hats in different venues within the waterfowl management enterprise.

In addition, communication and connectivity can come through NAWCA grant requirements. Through the legal requirements and process of the U.S. Fish & Wildlife Service distributing NAWCA grant funds, there are field trips to look at on-the-ground status, as well as reporting on progress.

Another leadership entity tied into NAWMP is the North American Wetlands Conservation Council (Council), who solicits, reviews, and recommends funding proposals for habitat conservation. The Council was created through NAWCA. The Council includes the USFWS director, the secretary of the National Fish and Wildlife Foundation, a State director representing each Flyway, and three NGO representatives involved in projects under the Plan or NWCA.

Similarly, the Migratory Bird Conservation Commission (Commission) is a connecting piece in the leadership structure. It is made up of Cabinet members and four members of Congress and has been in existence since before NAWCA. Among other things, the Commission considers establishing new waterfowl refuges.⁹⁸ The Commission meets roughly once a year to approve spending recommendations from the Council. The chair and another member of the Council sit in on Commission meetings.

NAWMP's working groups include the Leadership/Communications/Funding Work Group, the Science Work Group, the Policy Work Group, the NAWMP Awards Committee, and the Communications and Outreach Team. There are also subcommittees that are created and dissolved for specific projects.

Finally, the Plan Committee created an Interim Integration Committee (IIC) in 2012 to facilitate integrated management between the three goal areas of the Plan, waterfowl, habitat, and supporters. A recent review of the Plan Committee recommended replacing the IIC's function with more structured liaising between the Plan Committee and working groups. This recommendation was accepted, and they are transitioning to this structure.⁹⁹

Recognizing that most implementation decisions happen regionally or locally, NAWMP focuses on the mindset, "think continentally, integrate locally."¹⁰⁰ Leadership at each JV is unique, but each JVs leadership is a critical component to NAWMP's overall success.

⁹⁸ "Migratory Bird Conservation Commission," *National Wildlife Refuge System*, U.S. Fish & Wildlife Service, last updated October 29, 2019, <https://www.fws.gov/refuges/realty/mbcc.html>.

⁹⁹ NAWMP Plan Committee, "Report on Review of the Plan Committee."

¹⁰⁰ NAWMP Plan Committee, "2018 NAWMP Update," XI.

APPROACH TO DECISION MAKING AND CONFLICT RESOLUTION

The Plan Committee does not follow formal rules or voting structure, such as Robert's rules. They largely operate by consensus, tending to not move on if someone is unsettled on a topic, or they table the issue or send it to a sub-committee to resolve.

RELATIONSHIPS AMONG PARTICIPANTS

Each JV likely has unique relationships among participants. Among the Plan Committee, the dynamic changes with turnover and, like most organizations, is subject to personalities involved. Among the Plan Committee, the working groups, and the JVs, it is possible for people to be engaged in one part of this big plan and not understand the big picture or their place in it, a natural challenge to such a large organization.

INTERMOUNTAIN WEST JOINT VENTURE

Ultimately, the conservation goals of NAWMP are delivered primarily through JVs. The [IWJV](#) boundaries overlap most of the sagebrush biome and they have adopted a strong sagebrush conservation focus, so an in-depth review of their governance system may be instructive. IWJV has been building diverse partnerships across eleven western states to advance conservation in priority bird habitats since 1994. The IWJV emphasizes non-regulatory, entrepreneurial, and innovative approach to working across boundaries and strengthening local communities.

In June of 2019, the IWJV created a Sagebrush Conservation Committee, whose stated purpose is “to provide a diverse, agile, and actionable team of Board Members and other decision-makers to guide the IWJV’s sagebrush conservation efforts, address relevant threats and issues, and fill a (not otherwise occupied) niche that advances voluntary incentive-based conservation of the sagebrush ecosystem through collaboration.” The committee’s initial focus has been on coordinating and addressing catastrophic wildfire and invasives.

GOALS AND MEASURABLE IMPACT

The IWJV has established its priorities and activities in its 2013 Implementation Plan, which aims to align with NAWMP goals, and in its annual operational plans. The 2021 plan has five key areas of emphasis - catalyzing sagebrush conservation, expanding the Water 4 program, redesigning State conservation partnerships, building capacity of staff and partners, and operating and administering an effective joint venture - with 15 accompanying strategies to further the work in those areas.

Several of the IWJV’s strategies involve investing in and developing scientific decision support tools and integrating those into conservation planning. For example, the IWJV’s “Partnering to Conserve Sagebrush Rangelands: 2019 Annual Report” summarizes work the IWJV performed under two agreements with BLM in 2018-2019 and describes the outcomes of several science projects intended to measure the outcomes of conservation actions on sage grouse and sagebrush habitats and help inform adaptive management actions. One project focused on tracking the removal of invasive conifers in sagebrush landscapes and found that removal efforts are just keeping up with anticipated conifer

expansion.¹⁰¹ The IWJV is engaged in several research partnerships to collect landscape-level data and integrate into mapping platforms to depict current habitat status, trends, and the impacts of conservation actions, with the goal of helping inform land use and management decisions.

For its flagship Southern Oregon-Northeastern California Working Wet Meadows Initiative, the IWJV and its partners developed a science-based planning framework to guide conservation efforts. Using a bioenergetic model, the partners established an objective of 64,700 acres on private lands in the region in order to meet the needs of migrating waterfowl. They used this objective to focus and track their programmatic activities, and in 2018 reported enhancements to 17,707 acres of waterfowl habitat in the region over a 5-year period.¹⁰²

The 2019 annual report also lists the IWJV's achievements under the agreements, including metrics such as number of field projects implemented, acres impacted, and number of partners engaged.

BALANCED AND INCLUSIVE REPRESENTATION

The IWJV has a “relentless” focus on building diverse relationships, which is one of the core values guiding all its efforts.¹⁰³ Part of its mission is to “strive to find common ground among diverse interests to make a difference for wildlife, habitat, and people.” Over its 25 years, the IWJV has been creating public-private partnerships involving participants from a variety of perspectives. The 21-member Management Board directing the work of the IWJV includes representatives of State and Federal agencies, bird and wildlife conservation organizations, ranchers, the energy industry, and private landowners.

Through its State conservation partnerships, IWJV brings public and private partners together in bird habitat conservation projects that not only benefit other wildlife, but also local communities and economic livelihoods. These projects are tailored to the needs of local communities and partners.

Rather than focusing on conservation of a single species or landscape, the IWJV emphasizes the importance of broadening the frame of conservation to bring together diverse partners and funders in projects that benefit both the ecosystem and the participants. For example, regarding its Water 4 project, the IWJV points out that “by focusing on water—the natural resource issue that defines the West—we are helping partners conserve wetland habitat in a way that is relevant for many reasons for birds, other wildlife, and landscape function was established to conserve wet meadows and water for agriculture, wildlife and fisheries habitat, groundwater recharge, and landscape resiliency in ways that matter to people.”¹⁰⁴

¹⁰¹ Intermountain West Joint Venture, “2019 Annual Report,” <https://www.partnersinthesage.com/2019-annual-report>, 19.

¹⁰² Intermountain West Joint Venture and Natural Resources Conservation Service, “Southern Oregon-Northeastern California Working Wet Meadows Initiative: Accomplishment Report 2014-2018,” 1-3.

¹⁰³ “Our Approach to Collaborative Conservation,” Intermountain West Joint Venture, accessed December 16, 2020, <https://iwjv.org/our-approach-to-collaborative-conservation/>.

¹⁰⁴ IWJV, “2021 Annual Operational Plan,” <https://iwjv.org/annual-operational-plan/>, 10.

In its 2019 annual report, the IWJV notes that primary partners to date have included BLM, other Federal agencies, State fish and wildlife agencies, private landowners, public land grazing organizations, conservation NGOs, and funders. Moving forward, the joint venture intends to outreach to new audiences, such as journalists and the outdoor recreation community. To do so, the IWJV may need to broaden its messaging to include topics such as fire and invasives.

In its 2021 Annual Operational Plan, the IWJV details its strategies for reaching out to additional audiences. In the context of its sagebrush conservation work, it plans to engage “exploration and production companies; Public Lands Council and cattlemen's associations; Tribal partners; the outdoor recreation industry (e.g., REI, Patagonia, First Lite); young people in agriculture, and additional under-represented communities and populations who are essential to the future of sagebrush habitat conservation.”¹⁰⁵

ACCESS TO NEEDED KNOWLEDGE AND SCIENTIFIC OR TECHNICAL INFORMATION

One of the main activities of the IWJV is working in partnership with universities, science agencies, and NGOs to develop science and collect data to fill gaps in the understanding of ecosystems and species and then to communicate that information in a usable form to those whose decisions and activities impact the landscape. For example, the partners have developed a scientific understanding of key role of irrigated wet meadows for bird habitat and conservation, which helps to guide and prioritize their activities. They plan to continue work in this vein; in the IWJV's 2021 plan, for example, Strategy 2c aims to, “expand wetlands dynamics science and facilitate technical transfer of decision-support systems.”

In 2013, the IWJV released a series of three technical documents that identify its avian conservation priorities based on a scientific evaluation of costs, benefits, and likelihood of success.¹⁰⁶ Based on that analysis, it prioritized investments in wetlands landscapes with a specific focus on three strategic, high value areas. The organization uses these plans to focus its conservation work and partnerships on these key priority areas.

In 2013, the IWJV also identified modeling wetlands dynamics to determine how the landscapes are changing over time as its greatest science need. Work is ongoing to develop datasets for 11 western states that will ultimately be integrated into a web-based platform that will track wetland conditions across the region. Furthermore, the IWJV and its partners have developed a Wetland Dynamics Technical Report and Decision Support Tool to help guide conservation activities for working wet meadows.¹⁰⁷

SUFFICIENT AND SUSTAINABLE FUNDING

As a joint venture, the IWJV receives an allocation of funds through USFWS, as well as primary funding from BLM. Those Federal funds, however, are outweighed by the contributions of its many partners,

¹⁰⁵ IWJV, 2021 Annual Operational Plan, 9.

¹⁰⁶ “IWJV Identifying Science Priorities: 2013 - 2018,” Intermountain West Joint Venture, accessed December 18, 2020, <https://iwjv.org/iwjv-identifying-science-priorities-2013-2018/>.

¹⁰⁷ IWJV and NRCS, “Southern Oregon-Northeastern California Working Wet Meadows Initiative,” 3.

which constituted 72% of the IWJV's income in FY2021.¹⁰⁸ The 2021 Annual Operational Plan includes NRCS, ConocoPhillips, and Rocky Mountain Power/Pacific Power among its other core funders.¹⁰⁹ Additional partners include State fish and wildlife agencies, U.S. Forest Service (USFS), NGOs, and energy companies.

Despite the challenges of the COVID-19 pandemic in 2020, the organization's budget increased 11% by \$1.5 million.¹¹⁰ The IWJV attributed this increase to the strong relationships built with Congress and agencies by its Government Relations Committee, its partners, and staff.¹¹¹

LEADERSHIP AND STAFFING

The IWJV has been in operation since 1994. It is governed by a 21-member Management Board, comprised of representatives from a variety of sectors, including State and Federal agencies, NGOs, the energy industry, and private landowners. As noted above, the board has a Government Relations Committee that has been successful in building good relationships with Federal agencies and members of Congress.

In FY2021, the IWJV was funded for 13 staff positions, all but one of which are filled. Of those positions, three are focused on communications and sharing the stories of conservation efforts and challenges with target audiences. The IWJV places a high priority on partnership-building, which is exemplified by the position of sagebrush collaborative conservation specialist, who is charged with expanding partnerships in the sagebrush conservation arena.

APPROACH TO DECISION MAKING AND CONFLICT RESOLUTION

Decision-making at the IWJV relies on the Management Board working closely with committees, staff, and work groups. The aim is to focus on common-ground solutions that work for the diverse interests represented in the partnership. While this requires significant capacity to facilitate effective meetings where people are incentivized to work together, conflict resolution has not been required.¹¹²

RELATIONSHIPS AMONG PARTICIPANTS

According to the website, IWJV partners accomplish together what no single entity could do on its own. As noted above, the IWJV prides itself on forging diverse partnerships that are based on the needs and interests of those involved and are mutually beneficial. The significant funding that the IWJV receives from its partners - as well as its longevity - seem to reflect the high value that participants place on the organization and its work.

¹⁰⁸ IWJV, 2021 Annual Operational Plan, 19.

¹⁰⁹ IWJV, 2021 Annual Operational Plan, 20.

¹¹⁰ IWJV, 2021 Annual Operational Plan, 20, 22.

¹¹¹ IWJV, 2021 Annual Operational Plan, 19.

¹¹² Alison Duvall, personal email communication on 3/8/21.

PLAYA LAKES JOINT VENTURE

One JV that has been recognized for its innovation and success in bringing together a diversity of partners and funding sources is the Playa Lakes Joint Venture.¹¹³ Identified as a critical region for bird habitat conservation under the NAWMP, PLJV covers over 300,000 square miles and crosses six states - Colorado, Kansas, Nebraska, New Mexico, Oklahoma, and Texas. The PLJV was launched in 1989 as the 7th official joint venture under the NAWMP. While its original mission was waterfowl conservation, it has now expanded to the conservation of all birds. In this region, the playas - or seasonal ponds - provide habitat for at least 20 waterfowl species during migratory and winter seasons.¹¹⁴ The playas also help to recharge the Ogallala Aquifer, which is an essential source of groundwater in the region.

GOALS AND MEASURABLE IMPACT

The PLJV's mission is to "conserve the playas, prairies, and landscapes of the western Great Plains . . . through partnerships for the benefit of birds, other wildlife, and people."¹¹⁵ To carry out that mission, the organization works to:

- Restore the playas to help maintain the function of the Ogallala Aquifer for the benefit of the communities and wildlife who depend on it;
- Restore wetland and grassland habitat to increase bird populations for the benefit recreational communities who engage in hunting, birdwatching, and other activities; and
- Harmonize its restoration goals with local communities' water quality and quantity needs and goals.

The PLJV has established that there are 71,850 probable playas in the region and that 32,611 of them need to be healthy to provide the required habitat for migratory birds. To measure the partnership's progress toward its goals, the organization has a tracker on its website (<https://pljv.org/playa-conservation/tracking-our-progress/>) that indicates how many playas are healthy, how many need to be restored, and the percentage of playas with improved or reduced function over time. These clear indications of progress - or setbacks - toward goals help the partnership to focus its efforts. For example, the PLJV acknowledges that although 150 playas were restored in 2017, 328 others suffered reduced functionality due to energy development, sediment accumulation, or hydrologic modifications - demonstrating that the partnership needs to do even more to offset those impacts.¹¹⁶ As a result, the PLJV is engaging with new partners, including municipalities and the wind energy industry.

BALANCED AND INCLUSIVE REPRESENTATION

The PLJV emphasizes the importance of partnerships to its success. It brings together representatives of State and Federal wildlife agencies, conservation organizations, and private industry. The joint venture offers the opportunity for the partners to engage in shared regional planning and conservation activities,

¹¹³ NAWMP Plan Committee, "2018 NAWMP Update," 7.

¹¹⁴ NAWMP Plan Committee, "2018 NAWMP Update," 7.

¹¹⁵ "A Shared Future for Wildlife and People," Playa Lakes Joint Venture, accessed December 20, 2020, <https://pljv.org/>.

¹¹⁶ "Tracking Our Progress on Playa Conservation," Playa Lakes Joint Venture, accessed December 20, 2020, <https://pljv.org/playa-conservation/tracking-our-progress/>.

while the individual participants bring financial resources, technical expertise, and local perspectives to the table.

The PLJV is working on building and strengthening its partnership with the wind industry, as the growing industry has the potential to significantly impact the playa landscape. The PLJV's approach to working with the industry is to build awareness of the value and functionality of the playas and their importance to both communities and wildlife. In order to bring the industry to the table, it has been helpful to have a non-regulatory approach. Working collaboratively with wind energy representatives, the PLJV has developed siting and mitigation recommendations and guidance for wind energy development.

ACCESS TO NEEDED KNOWLEDGE AND SCIENTIFIC OR TECHNICAL INFORMATION

The PLJV has a robust mechanism for integrating scientific information into its work. Its Science Advisory Team, comprised of scientific and technical professionals, is coordinated by a science conservation director on the PLJV staff. The team's work lays the foundation for the PLJV's conservation goals and activities. It also develops research plans, monitoring and evaluation protocols, and reviews research project proposals submitted to the joint venture.

The Scientific Advisory Team has played a key role in the development of the organization's approach to its conservation work. Developing a scientific understanding of the functioning of the playas and their essential role in aquifer recharge, as well as undertaking social science research to explore the human relationship to the playas, has served as the foundation for the PLJV's innovative partnerships that aim to restore playas through the conservation of both wildlife habitat and water resources for local communities. Drawing on this understanding, the PLJV has partnered with the city of Clovis, New Mexico to implement a shared plan to preserve the town's more than 300 playas.¹¹⁷

SUFFICIENT AND SUSTAINABLE FUNDING

The PLJV is a nonprofit organization. While most of its early funding came from USFWS joint venture funds, that funding now makes up about half of the organization's revenue. The partnership recognized that to avoid over-reliance on Federal appropriations with their uncertain timing, the joint venture would need to diversify its revenue and develop a more consistent funding stream. Since 1990, the PLJV has raised over \$50 million for its conservation work.¹¹⁸ Members of the board contribute \$5,000 annually, both to demonstrate their investment in the joint venture and to add to a pool of matching funds for Federal grants.

The PLJV connects regional habitat and wildlife conservation projects with funding. The joint venture provides information to landowners and local organizations about grant opportunities for conservation work, such as farm bill programs. It also offers the PLJV ConocoPhillips Capacity Grant program, which provides funding to states for grassland habitat conservation programs. For NAWCA grants, the PLJV may contribute required matching funds for wetlands conservation projects that aim to provide bird

¹¹⁷ NAWMP Plan Committee, "2018 NAWMP Update," 7.

¹¹⁸ "Our Partners," Playa Lakes Joint Venture, accessed December 20, 2020, <https://pljv.org/about-us/our-partners/>.

habitat. Finally, the PLJV assists the NAWCA review committee in the evaluation of grant proposals that are submitted from the region.

LEADERSHIP AND STAFFING

The organization has a Management Board with 21 members representing wildlife conservation organizations, State and Federal wildlife agencies, State agriculture agencies, and industry. The board helps set the direction of the joint venture and approves funding for projects. Members also do outreach to the public and decision makers. When there is an open board seat, the PLJV works with the partner organization to identify a representative who is a good fit for the position.

The PLJV has eight of its own staff; in addition to the conservation science director mentioned above, there are two staff positions devoted to communications and outreach.

APPROACH TO DECISION MAKING AND CONFLICT RESOLUTION

Meetings of the PLJV are at times facilitated by joint venture staff and other times by officers of the board; an independent facilitator has not been necessary. A participant noted the meetings are productive and focused on the business of developing conservation projects and metrics or working with landowners. The group has been working together for a long time and so there is not a significant need for conflict resolution.

RELATIONSHIPS AMONG PARTICIPANTS

In an interview, a participant noted that there is a great deal of trust among PLJV members, in part because the effort is not regulatory. Members are generally committed to furthering the work of the joint venture because it aligns well with their own missions. They are focused on carrying out their own projects while trying to avoid overlap and inefficiencies. As a result, there is little concern among members about the motives of other participants.

In the case of bringing in new members, such as in the current initiative to engage the wind industry, the PLJV finds that some companies are motivated to join due to their own missions, while in other cases it helps to have Federal agency partners engage with the company and facilitate their involvement. When new members join, they generally spend some time in the beginning to listen and learn how the group operates.

THE LANDSCAPE CONSERVATION COOPERATIVES AND THE NORTHWEST BOREAL PARTNERSHIP

The LCCs were created in 2009 by the Department of Interior (DOI).¹¹⁹ This network of 22 conservation partnerships spanned the United States, as well as parts of Canada and Mexico. The aim of the LCC Network program was to, “identify and prioritize conservation science needs broadly; fund and otherwise support research projects that address these needs; and ensure that the results and products

¹¹⁹ Dorothy Merritts, “Preface,” in *A Review of the Landscape Conservation Cooperatives*, (Washington, DC: The National Academies Press, 2016), xi.

derived from these projects can apply to conservation efforts.”¹²⁰ DOI helped provide the LCC Network’s funding and overall vision and goals, while each LCC had its own governance model, leadership, and priorities.

Despite compelling arguments in support of a need for collaborative, landscape scale conservation planning and implementation, LCCs were not uniformly accepted across the country, and within 5 years (2014) Congress directed the USFWS to contract with NAS to evaluate: (1) the purpose, goals, and scientific merit of the program within the context of other similar programs; and (2) whether there have been measurable improvements in the health of fish, wildlife, and their habitats as a result of the program.¹²¹ The ensuing NAS report was generally favorable, but by 2018 Federal support for LCCs essentially dried up, presumably because of opposition to LCCs by key partner organizations. The NAS Committee report, written while LCCs were still active, evaluated the LCC network against criteria that contribute to the success of large landscape conservation collaboratives. They concluded:

- The vision of LCCs (responding to climate change and other landscape-scale stressors) might have been too broad and not compelling enough to engage partners. They cited examples of other successful landscape collaboratives that had specific and quantifiable objectives that partners could rally around.
- Although built on a collaborative partnership platform, the depth of engagement by many partners was not strong, in part because LCCs had science money but no funding for on the ground implementation. Successful implementation required individual partners to engage in these activities outside the LCCs, which they could do anyway.
- LCCs were perceived by some as competing for funding with other USFWS programs that had broad support and constituents, and that LCCs were duplicative of other Federal programs such as the Joint Ventures.¹²²

The LCC network concept came from DOI, without the active involvement or necessarily even buy-in from stakeholders who were ultimately invited to participate. Given that the LCC program had no congressional appropriation of its own, funding for staff and science support was reallocated from existing programs. As noted in the NAS report, implementation of conservation actions indicated by planning or science projects was solely dependent on partners using their own funding.¹²³

NORTHWEST BOREAL PARTNERSHIP

The Northwest Boreal LCC worked with and received administrative and financial support from USFWS through 2017. In 2018, substantial reductions in U.S. Federal Government support of the LCC Network led to most LCCs dissolving or transforming into different partnerships. At that time, the Northwest

¹²⁰ National Academies of Sciences, Engineering, and Medicine, *A Review of the Landscape Conservation Cooperatives*, 59.

¹²¹ National Academies of Sciences, Engineering, and Medicine, *A Review of the Landscape Conservation Cooperatives*.

¹²² National Academies of Sciences, Engineering, and Medicine, *A Review of the Landscape Conservation Cooperatives*, 70.

¹²³ National Academies of Sciences, Engineering, and Medicine, *A Review of the Landscape Conservation Cooperatives*.

Boreal LCC became the Northwest Boreal Partnership, financially supported by NGO partners. The NWBP is also part of the Northern Latitudes Partnerships, a cooperation among the three former LCCs in Alaska and northwest Canada for joint work and idea sharing.

GOALS AND MEASURABLE IMPACT

The NWBP operates under a 10-year strategic plan. The strategic plan is in the process of being updated due to all the changes the NWBP has undergone since the plan's creation in 2015. Although the strategic plan is being updated, much of the vision for working together remains the same. The NWBP values and prioritizes setting shared goals that work for all partners. To accomplish this, they involve their diverse partners from the outset and keep them engaged through the entire goal-setting process. Due to the organization's goals currently being formulated, it is difficult to measure impact specifically.

BALANCED AND INCLUSIVE REPRESENTATION

The NWBP includes voting and non-voting Steering Committee members. "Members include entities that steward, use, or manage natural or cultural resources; conduct related science; and possess or gather Indigenous or traditional ecological knowledge (IK/TEK)."¹²⁴ Members collaboratively determine organizational priorities and structure, join working groups and projects, and often provide in-kind support and funding.

Steering Committee partners include Indigenous organizations, universities and research institutions, NGOs; US and Canadian Federal Government agencies, State and Provincial Government agencies, and several members who do not represent organizations, including Tribal and First Nation citizens, students, and retired professionals.¹²⁵

Moving forward, the NWBP is focusing on equity and inclusion, particularly regarding Indigenous peoples. Recently they formed an Indigenous leadership working group that is providing guidance during the NWBP's update of the charter and strategic plan, on-the-land Indigenous approaches training, leading racial equity dialogues within the Partnership and other relationship building opportunities. This emphasis evolved from an initial challenge during the early years of the partnership to meaningfully engage with local communities and to have representation of Indigenous organizations and persons within the NWBP Steering Committee and on projects. In recent years, calls from Arctic Indigenous groups for more equitable engagement from science researchers, conservation groups, and government entities has been steadily growing. The NWBP recognized that taking serious steps to address systemic inequities is critical to advance the mission and goals of the Partnership.

From this inclusive approach, the NWBP reports building more trust by involving Indigenous partners from the outset, before any meaningful decisions are made. The challenge they find is Indigenous people working in these areas are in high demand.

¹²⁴ Northwest Boreal Partnership, "Charter for the NWB LCC" (2018), https://northwestboreal.org/uploads/1/1/9/4/119407018/nwblcc_charter_-_approved_10-24-18.pdf, 2.

¹²⁵ "Partners," Northwest Boreal Partnership, accessed December 16, 2020, <https://www.northwestboreal.org/partners.html>.

ACCESS TO NEEDED KNOWLEDGE AND SCIENTIFIC OR TECHNICAL INFORMATION

The NWBP emphasizes balancing knowledge from Western science data and IK/TEK. While the organization was an LCC, it relied primarily on Western science data and approaches. Since 2018, projects now focus more on Indigenous-led efforts, such as Indigenous led land-use planning, that are based in Indigenous worldviews, approaches, and knowledge.

For example, the NWBP was planning to co-host a workshop gathering in partnership with a local First Nation in Canada, focused on Indigenous led land-use planning. The entire structure of the workshop was intended to blend Western and Indigenous norms for meetings. Story time, space and support for elders, and conversations out on the land were to be included. The workshop was ultimately postponed due to the COVID-19 pandemic, but the NWBP is working with an all-Indigenous Steering Committee to implement the workshop as a virtual series in spring 2021. This learning opportunity is tailored to a broad audience of academics, government officials, and others not as familiar with Indigenous worldviews and approaches to land stewardship.

Another example of balancing Western science data and IK/TEK is the “Northern Connections: Bridging Indigenous Knowledge & Observations” project, funded by the National Science Foundation’s Navigating the New Arctic Program. The NWBP Partnership Director is the project leader, in collaboration with 17 additional partners based in Alaska and Canada. The project is intended to bring together Indigenous, community-based environmental monitoring efforts across Alaska and Canada, explore ways to connect efforts at the landscape-scale, and strengthen on-going monitoring programs. “With many on-going environmental monitoring efforts happening in silos, [the] goal is to find ways to reduce duplication of efforts, connect data collection across large geographies, and help connect a network of 50+ partners who are tracking environmental change in the North.”¹²⁶ This project focuses, in part, on improving community-based monitoring and building a more robust monitoring network. As the project team has worked to bring in additional Indigenous leadership to the project, additional objectives include, working with funders to help them be more inclusive in what monitoring projects they fund, and how they can partner with Indigenous leaders to create more equity within their funding frameworks.

SUFFICIENT AND SUSTAINABLE FUNDING

As mentioned in the introduction, base funding and staff support for the NWB LCC originally came from USFWS. The lack of financial support from USFWS in 2018 motivated their transformation into the NWBP with NGO partners (Wildlife Management Institute and Alaska Conservation Foundation) to manage grants, host staff positions, and assist with fundraising. The NWBP is still establishing a long-term, sustainable funding model to support staff, operations, and project work. Their goal is to eventually have multiple full-time staff, and the ability to cover operating costs and partnership meetings, based on a public-private funding model. Member organizations either use their own resources to help realize partnership goals and visions or collaborate on funding proposals and projects that bring in resources for their organizations as well as the NWBP itself.

¹²⁶ “Northern Connections: Bridging Indigenous Knowledge & Observation Efforts,” Northwest Boreal Partnership, accessed December 16, 2020, <https://www.northwestboreal.org/northern-connections-bridging-Indigenous-knowledge--observation-efforts.html>.

The NWBP's long-term funding goal is diversification between public and private sources for more stability and less vulnerability to politics. The NGO partners that initially supported the NWBP in 2018 helped the NWBP secure long-term private funding with other private partners. The USFWS has stepped back in as a public funder of the NWBP but simply as a partner, and at a much-reduced funding level than was the case under the national LCC Network program. Since 2018, the NWBP has secured several competitive grants for projects and continues to seek funding opportunities.

Being housed outside of government has enhanced the ability of the NWBP to build trust, as well as to help collaboratively secure funding that can be distributed among project partners, particularly Alaska Native Tribes and Canadian First Nations. When they were an LCC, people saw them as another arm of the Federal agency. Now they are better positioned to do collaborative work and build trust.

The NWBP shifts funds to meet current emphases and demands. For example, the NWBP was prioritizing funds to support Indigenous peoples' participation, mirroring their focus on diversity, equity, and inclusion. With COVID-19 preventing travel, funds previously allocated to travel were not needed, those funds were therefore shifted to project work.

LEADERSHIP AND STAFFING

The NWBP is run by a Steering Committee made up of voting and non-voting members. The Steering Committee makes the major decisions for the organization, "such as setting programmatic priorities, making organizational changes, where to allocate funding, and determining [the] strategic plan."¹²⁷ The leadership team within the Steering Committee includes a co-chair and vice-chair from each country and the Partnership Director, which meets on a bi-weekly basis. The Steering Committee members meet quarterly. Owing to the large geographic area the NWBP covers, the meetings rotate between virtual and in-person and between Canada and Alaska, resulting in a face-to-face meeting in Alaska and Canada at least once a year. In recent years, NWBP meetings have evolved to include a significant time focused on locally relevant topics that are open to participation by local leaders, decision-makers, and experts. These are paired with NWBP Business Meetings, in which the Steering Committee addresses organizational business and updates.

In terms of project development, the Steering Committee has a general role in setting priorities, but specific proposals and project development occurs organically, with input and leadership from a mix of Steering Committee organizations and outside collaborators who share a common interest and alignment around specific needs within a specific geography. Often, collaborative proposals are developed to bring in resources needed to implement a project, and partners are brought on board either as a result of pre-planning and scoping workshops, or through networking and relationships already established among NWBP partners and broader entities throughout the northwest boreal region.

One of the key components of the NWBP structure is ensuring there is full-time paid staff dedicated to this work. As was mentioned above, more than one staff is ideal but, in their view, at least one full-time

¹²⁷ "Our Partnership," Northwest Boreal Partnership, accessed December 16, 2020, <https://www.northwestboreal.org/our-partnership.html>.

staff dedicated to the success of the partnership is vital. The NWBP staff includes a full-time, dedicated Partnership Director and a Communications and Outreach Coordinator that works with all three of the former LCCs that constitute the Northern Latitudes Partnerships. Prior to 2018, the NWBP had three-full time positions as well as additional staff that shared duties among the LCCs in Alaska. This reduction in staffing has remained a challenge for the partnership.

One of the challenges of the reduction in staff capacity, along with the loss of sustained backbone funding, is that the allocation of time for the Partnership Director to put towards general coordination duties, relationship-building, has shifted significantly to include substantial time toward development. In addition, without a dedicated “Science Coordinator” (as part of the former LCC staffing structure), project coordination and management also falls largely to the Partnership Director.

APPROACH TO DECISION MAKING AND CONFLICT RESOLUTION

The NWBP is a consensus-based decision-making body. The Leadership Team meets on a bi-weekly basis and is granted authority by the NWBP Steering Committee at large to make decisions on the day-to-day work of the NWBP, or to make decisions that require a rapid response. High-level decisions around general priority-setting, changes to the charter or strategic plan, or any other issues that would affect the nature of the partnership are in the authority of the entire Steering Committee.

Conflict has not yet been tested in the NWBP. There is a realization, however, that guidelines need to be in place before a conflict emerges. There is currently a mechanism to remove members from the partnership if they have not participated in two years. The NWBP aims to hold people accountable to voluntary guidelines; if issues arise where partners are acting outside of those guidelines, there will be a mechanism by which the NWBP can ask members to step down.

RELATIONSHIPS AMONG PARTICIPANTS

Although the NWBP will soon revise its charter, the values embodied in the existing charter are still relevant and reflective of the current organization. The charter outlines principles each partner agrees to follow. The principles state:

- Working together strengthens planning, research, inventory and monitoring programs, communication, and adaptive management by leveraging the collective human and financial resources to provide quality science and IK/TEK to address shared information needs.
- Working together strengthens and enhances capabilities to plan, design, and deliver strategies in response to changes in climate, land use, ocean conditions and other environmental factors.
- Cooperation and consistency among partners improve communication and messaging, and is critical for the development of rigorous science, IK/TEK, and tools that support sound, outcome-based, stewardship of fish and wildlife, habitats, and critical cultural resources.
- Each partner is committed to understanding the opportunities and constraints of one another’s independent authorities and regulatory responsibility, which will not be compromised through participation in the partnership described in this Charter.
- Each partner will consider and respect each participating organization’s unique mandates and jurisdictions.¹²⁸

¹²⁸ Northwest Boreal Partnership, “Charter for the NWB LCC,” 3.

The current leadership also notes their emphasis on bringing people together before having goals and plans crafted. That intentional, inclusive “pre-planning” time built into timelines and budgets is a high priority to avoid hard feelings from those who would otherwise be invited in later, as an afterthought. The NWBP also takes great pride in knowing how to build and maintain relationships, by being patient with the time that relationship-building takes and asking what matters to people. To build strong relationships and inclusivity, they also prioritize bringing people together in-person without outside distractions and outside of a traditional boardroom setting. They plan to facilitate field trips for the Steering Committee, particularly those led by local Indigenous community members when possible.

CHESAPEAKE BAY WATERSHED AGREEMENT AND THE CHESAPEAKE BAY PROGRAM

In 1983, the governors of three states - Maryland, Pennsylvania, and Virginia - the mayor of the District of Columbia, the EPA administrator, and the chair of the Chesapeake Bay Commission signed the historic Chesapeake Bay Agreement to fight pollution in the watershed. The 64,000-square mile watershed became the first estuary in the United States to benefit from restoration and protection efforts by Congress. The agreement followed a comprehensive, congressionally funded study of the Chesapeake Bay in the 1970s that revealed the water quality problems in the bay, principally the flow of excess nutrients and toxic substances resulting in its state of degradation and the critical decline of submerged aquatic vegetation. As part of that agreement, the Chesapeake Bay Program Office was established under EPA to coordinate a regional partnership to guide restoration efforts. Since then, the CBP has become a national and international model for collaborative efforts on ecosystem restoration, serving as a template for the National Estuaries Program later established by the EPA.

GOALS AND MEASURABLE IMPACT

In its over 35 years of operation, the Chesapeake Bay partnership’s methods for setting and tracking its goals have evolved considerably, with a series of agreements establishing new standards and processes. The 1983 document was a simple, one-page agreement to coordinate on addressing pollution in the bay. It was followed by the 1987 Chesapeake Bay Agreement, among other goals and commitments, the first measurable goal of 40% nutrient reduction and a deadline for achieving it. In 2000, the partners signed the *Chesapeake 2000* agreement, which set a vision and strategy for the region, accompanied by 102 ecosystem restoration goals. While the partnership made progress in some of those goal areas, its results were mixed, with key resources such as oyster populations continuing to decrease and pollution due to nutrient runoff from agricultural and urban areas continuing to rise.¹²⁹

Given the continuing interest of Congress - perhaps owing in part to the bay’s location in proximity to Washington, DC - the CBP was the subject of a series of GAO investigations and reports beginning in 2006. In its 2006 report, the GAO observed that despite having over 100 goals, the partnership lacked an approach for assessing its progress in a measurable way.¹³⁰ It also noted that the CBP’s progress

¹²⁹ “Bay Program History,” Chesapeake Bay Program, accessed December 22, 2020, https://www.chesapeakebay.net/who/bay_program_history.

¹³⁰ U.S. Government Accountability Office, Chesapeake Bay Program: Improved Strategies Needed to Better Guide Restoration Efforts, Testimony Before the Subcommittee on Interior, Environment, and Related Agencies,

reporting was not sufficiently transparent, accessible, or independent. In response, the partnership worked to develop a more integrated approach to goal setting and tracking, created a new reporting format, and planned to have its work independently assessed.

In 2010, the EPA established a TMDL for the Chesapeake Bay that established limits on the amount of nutrients and sediment entering the bay, which the CBP refers to as the watershed's "pollution diet." In response to these regulatory limits, Federal, State, and Local Governments then collaborated to create State-based Watershed Implementation Plans (WIPs) throughout the seven jurisdictions in the watershed that set out plans for how the bay could achieve the TMDL levels by 2025.

A 2011 GAO report found, however, that not all the stakeholders were working collaboratively towards the same goals, with Federal stakeholders following a strategy responding to a 2009 Executive Order to increase Federal leadership and engagement in bay restoration, and some State participants viewing it as a uniquely Federal effort. The report pointed to several potential obstacles to achieving the Chesapeake's protection and restoration goals - a lack of collaboration among stakeholders, insufficient funding, and external factors such as the increasing impacts of climate change.¹³¹ The CBP responded that it was working to develop an integrated set of goals to align stakeholder efforts.

In 2014, the partnership expanded to include the headwater states of Delaware, New York, and West Virginia, and together they signed a new Chesapeake Bay Watershed Agreement, which achieved the desired goal alignment and included a commitment to achieve the WIPs. That agreement was later amended in 2020. The partnership's vision for the watershed is "an environmentally and economically sustainable Chesapeake Bay watershed with clean water, abundant life, conserved lands and access to the water, a vibrant cultural heritage, and a diversity of engaged citizens and stakeholders."¹³² The 2014 agreement established the following 5 thematic areas with 10 interrelated goals, including the TMDL, and 31 measurable outcomes:

- Abundant life
- Clean water
- Climate change
- Conserved lands
- Engaged communities

For each of the goal areas, a Goal Implementation Team (GIT) is charged with developing strategies to reach the associated outcomes by 2025. In 2017, the CBP launched its Strategy Review System, a structured process to apply an adaptive management approach to its program implementation. Progress toward each of the goals is reviewed on two-year cycles by the CBP's Management Board and adjustments are made as needed. This review process is supported and documented by the decision

Committee on Appropriations, House of Representatives, statement of Anu K. Mittal, GAO-06-614T (Washington, DC: July 13, 2006): 1.

¹³¹ U.S. Government Accountability Office, Chesapeake Bay Restoration Effort Needs Common Federal and State Goals and Assessment Approach, Report to Congressional Committees, GAO-11-802 (Washington, DC: September 2011): 1.

¹³² "What Guides Us," Chesapeake Bay Program, accessed December 22, 2020, https://www.chesapeakebay.net/what/what_guides_us/watershed_agreement.

support tool ChesapeakeDecisions (www.chesapeakebay.net/decisions). Progress against the outcomes is also tracked on the publicly available ChesapeakeProgress website (www.chesapeakeprogress.com).

In terms of the partnership's environmental impacts to date, despite centuries of development and polluting activities in the watershed, the last 35 years of restoration efforts have yielded some results and pollution in the bay generally is decreasing. Progress in other key areas is still slow, however, and the partnership recognizes the need for continued work to achieve a healthy and functioning watershed.

While the development of the Chesapeake Bay TMDL has been a step forward as it provides a regulatory incentive, it can also have the effect of drawing energy and attention away from other restoration goals. The two-year Strategy Review System cycle, however, helps to focus attention on each of the outcomes periodically. Another effective aspect of the system has been developing a relationship between outcomes and quantified indicators that are measured to show the progress of the partnership's efforts. Finally, the fact that the CBP program agreements are signed by representatives at the highest levels of government has been helpful over the years to focus attention and resources on the program's priorities.

BALANCED AND INCLUSIVE REPRESENTATION

The CBP states that partnerships have been fundamental to its program, bringing together the expertise, authority and resources needed to carry out its activities. They also allow the participants to gain a better, fuller understanding of the issues, as well as to coordinate efforts and avoid overlap. The Chesapeake's sprawling collaborative effort includes:

- 19 Federal agencies
- Nearly 40 State agencies and programs
- Approximately 1,800 Local Governments
- Over 20 academic institutions
- Over 60 businesses, nonprofits, and advocacy groups

While the headwater states of the Chesapeake Bay were not part of the original agreement, they did sign on to the 2014 Chesapeake Watershed agreement, signaling the importance of engaging all the jurisdictions in the watershed to improve bay health. Recognizing it as an area for improvement, one of the partnership's goals under the 2014 agreement is to increase the diversity of participants in the program's activities by reaching out and engaging groups that are not currently represented in the partnership's decision making.¹³³

ACCESS TO NEEDED KNOWLEDGE AND SCIENTIFIC OR TECHNICAL INFORMATION

As mentioned above, the CBP is taking an adaptive management approach to carrying out its ecosystem goals, using the structured process of the Strategy Review System and the ChesapeakeDecisions tool. Its programmatic goals are linked to quantified outcomes and deadlines that are reviewed on a two-year cycle and revised as needed in response to updated information or changes on the ground. One challenge of adopting an adaptive management approach, however, is helping participants and decision

¹³³ "Stewardship," Chesapeake Bay Program, accessed February 12, 2021, <https://www.chesapeakebay.net/what/goals/stewardship>.

makers understand what it means to adaptively manage and when it is appropriate to make changes to goals and outcomes. Different stakeholders can have different perspectives on the meaning and execution of adaptive management, so taking this approach can require a learning process for participants to reach a common understanding.

The CBP has multiple avenues for integrating scientific and technical information into its work. Since the earliest days of the program in 1984, the CBP has benefitted from the advice of the Scientific and Technical Advisory Committee (STAC), whose membership is composed of appointees from the signatory states, the District of Columbia, Federal agencies, and at-large appointees, mostly from academia. The STAC provides independent scientific and technical input through reports and reviews, as well as science-based communications and outreach throughout the region. There is also the Science, Technical Analysis, and Reporting (STAR) group that works directly with the GITs and Work Groups to provide for their scientific and technical needs, such as modeling, analysis, and explanations of changing conditions that will help support their decision making. Its membership includes CBP staff and representatives of Federal and State agencies, NGOs, universities, and the GITs. Furthermore, the CBP has a suite of scientific and technical programs that support its work, including comprehensive modeling of the Chesapeake ecosystem, a monitoring program, and a Resource Lands assessment using GIS models.

Although the partnership has numerous ways to access scientific and technical information, it has yet to find ways to incorporate IK/TEK into its work. There is a need to bring more Tribal representatives to the table to develop a more holistic view of the Chesapeake Bay and its issues. The region includes both State-recognized Tribes and several Federally recognized Tribes that received that designation in 2018. The CBP is currently planning to reach out to diverse stakeholders who have not been participating to date, as well as to bring more social science approaches to bear in its activities.

SUFFICIENT AND SUSTAINABLE FUNDING

There are many sources of funding for the Chesapeake Bay partnership's ecosystem protection and restoration work, coming from a range of contributors, including Federal agencies, State budgets, Local Governments, NGOs, and private sector organizations. There are some robust nonprofit organizations, such as the Choose Clean Water Coalition and the Chesapeake Bay Foundation, which are helping to further diversify the funders contributing to Chesapeake Bay restoration. The CBP has a Budget and Finance Work Group that is the focal point for coordination, funding innovation, and reporting within the partnership.

With many partners providing funds to the restoration effort, the funding of CBP programs can be quite complex. The Federal Office of Management and Budget is required to report annually to Congress on State and Federal funding for the CBP, which it does in the *Chesapeake Bay Spending Restoration Crosscut* report. In fiscal year 2020, State and Federal agencies combined spent almost \$1.6 billion on Chesapeake Bay restoration.¹³⁴ A summary of the *Crosscut* report and breakdown of the spending by

¹³⁴ "Funding," Chesapeake Bay Program, accessed February 12, 2021, <https://www.chesapeakeprogress.com/funding>.

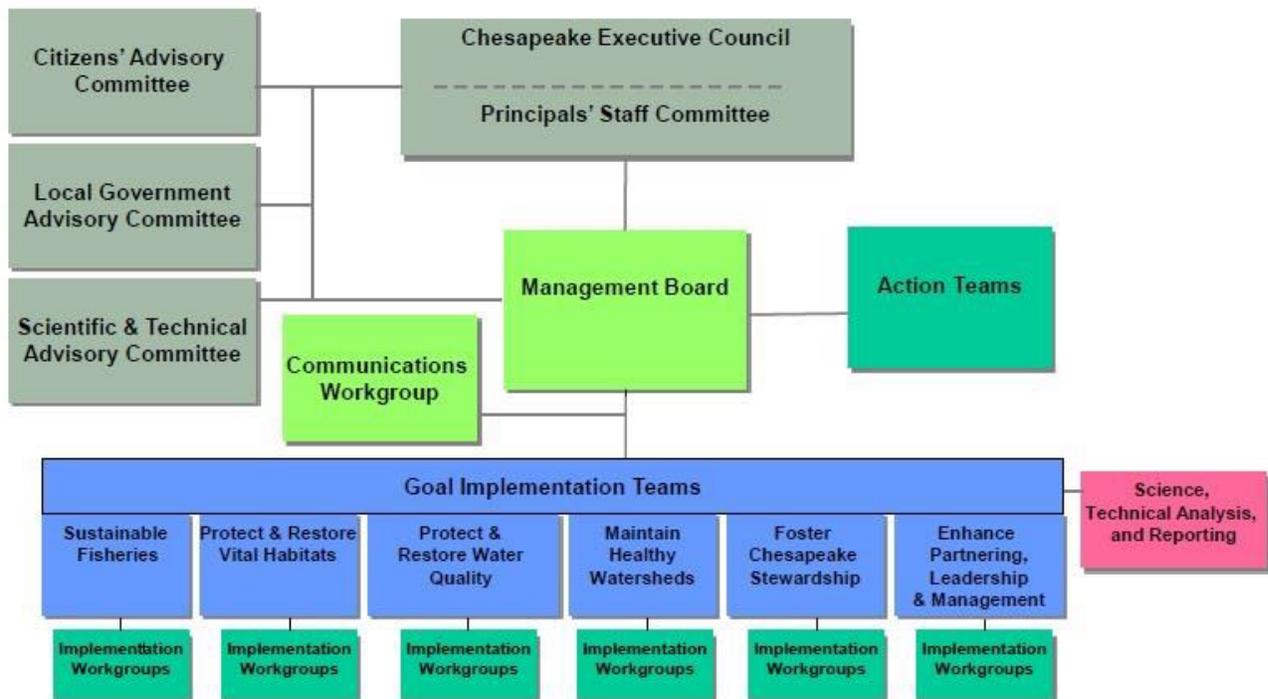
Federal agency and by state is available on the ChesapeakeProgress website (www.chesapeakeprogress.com/funding).

A significant source of program funding comes from congressional appropriations to EPA. While the CBP continues to enjoy strong support in Congress, there can be the risk of delays or funding reductions with the uncertainties of the appropriations process. The EPA funds support the operations and coordination of the Chesapeake Bay Program Office, including providing staffing, scientific and technical expertise, and decision support tools. While the Chesapeake Bay Program Office provides funding for meeting space and remote access to meetings, it does not typically fund participant travel to meetings and partners are expected to fund their own travel. Approximately two-thirds of EPA’s funding is passed on through grant programs to State and Local partners to do restoration, protection, and monitoring work.

LEADERSHIP AND STAFFING

It can be challenging to manage a collaborative effort as extensive as the Chesapeake Bay’s. The partnership has organized itself into a hierarchical decision-making structure headed by the Chesapeake Executive Council (EC) [see Figure 1]. The EC is composed of the governors of the watershed signatory states, the mayor of DC, the EPA administrator, and the chair of the Chesapeake Bay Commission. The EC meets annually to set policies for the restoration and protection of the bay. The annual meetings serve to focus public attention on the issues and the high-level leadership confers credibility and authority on the program. Leadership of the EC rotates among the members.

Figure 1. Organizational Structure of the Chesapeake Bay Program¹³⁵



¹³⁵ Chesapeake Bay Program, “Governance and Management Framework for the Chesapeake Bay Program Partnership,” March 31, 2020, 5.

The EC is supported by the Principals' Staff Committee (PSC), which is composed of high-level State and Federal leaders. Each state can bring a delegation of members from relevant State agencies, such as agriculture, environmental, and natural resource agencies. When voting, each delegation submits a single vote. The PSC supports the EC by translating its policy direction into implementation. The PSC identifies topics for consideration by the EC and sets their agendas. It also provides policy and program direction to the CBP Management Board and tracks the direction of CBP policies and projects on behalf of the EC. The PSC holds meetings at least three times per year and more often as needed. The chair of the PSC is a representative of the signatory who is currently chairing the EC; the PSC chair coordinates the meetings with the assistance of CBP staff.

The Management Board does strategic planning for the CBP, sets priorities, and offers operational guidance. They also oversee the GITs that are carrying out the implementation of the partnership's programs. Members of the Management Board are representatives of their signatory or Federal agency - generally ranking a step below those on the PSC - and coordinate their entity's activities regarding the partnership. The CBP director chairs the Management Board and works with a staff coordinator to facilitate monthly meetings on the group's priorities.

Since the early days of the CBP's operations, three standing advisory committees have offered input on the program's work. In addition to the STAC discussed above, the Citizens' Advisory Committee and the Local Government Advisory Group were established in 1984 and 1987, respectively. The Citizens' Advisory Committee is comprised of representatives of stakeholder groups throughout the watershed, including the agricultural and homebuilding sectors, businesses, environmental and conservation groups, and civic organizations. The Citizens' Advisory Committee not only provides stakeholder perspectives on the program's restoration activities, but also engages in educational outreach to constituent groups and the public. It further undertakes an independent evaluation of the CBP's work. The role of the Local Government Advisory Group is to share the perspective of Local officials on program implementation and engage Local Governments, facilitating the flow of information among governments in the watershed.

Goal Implementation Teams, or GITs, as mentioned above, are responsible for coordinating implementation to achieve results for each of the 10 goals and 31 outcomes outlined in the 2014 agreement, along with a sixth goal area to support the Management Board with governance, coordination, and management of the overall program. The GITs develop management strategies and two-year Logic & Action plans for each of the 31 outcomes in their goal areas. They also commission work groups to undertake specific tasks as the need arises. The leadership of the GITs is established following either a chair/vice chair or co-chair model. Any member can serve in a chair role, provided at least one of the leadership seats is filled by either a Federal or State representative. The GITs aim to have representation from both signatories and non-signatories among their membership, with slots for at-large members, as well as advisors from the advisory committees and relevant work groups. Meetings are held as needed to accomplish the group's tasks.

In addition to the STAR group described above, which offers scientific and technical support to the GITs, another cross-programmatic work group is the Communications Work Group. The work group assists with communications efforts across the jurisdictions in the watershed.

Section 117 of the Clean Water Act provides the authority for EPA to establish and maintain the Chesapeake Bay Program Office. The office is staffed with EPA and other Federal staff, along with State, academic, and NGO partners. Program staff are assigned to coordinate each of the GITs and the EC and PSC are supported by high-level program staff.

In 2009, executive order 13508 Chesapeake Bay Protection and Restoration was issued, directing Federal agencies to increase their engagement in and support to the CBP. A Federal Leadership Committee (Committee) was established with the EPA administrator as the chair. Committee membership includes senior representatives of the departments of Agriculture, Commerce, Defense, Homeland Security, Interior, and Transportation. The order directed the agencies to take a leadership role, while acknowledging that success depends on the collaborative partnerships in the region. Agencies should use their resources, authorities, and expertise efficiently to support the CBP efforts. The Committee was also required to develop a strategy for coordination of existing efforts; it issued its *Strategy for Protecting and Restoring the Chesapeake Bay Watershed* in 2010.¹³⁶ Although the Committee has been helpful for bringing more Federal agencies into an active role in the Chesapeake Bay, the involvement of more agencies can also give a sense of diffused leadership and lack of clarity about who is in the lead role. It is important to be careful about the number of participants in a leadership role in order to preserve a sense of accountability on the part of those who need to take action.

Over the decades of the CBP's operation, it has remained stable, without significant impacts from political and administrative changes on the Federal and State levels. Different administrations with differing perspectives have respected the Chesapeake agreements. The political and economic importance of the Chesapeake Bay watershed, with Washington, DC located in the region, may have contributed to sustained congressional interest and to the stability of the partners' commitment. Agreements signed at the highest levels of government create an investment on the part of the partners that makes it difficult to later step back from the agreed-upon goals. Furthermore, the CBP is staffed at the high levels with career Federal employees who are not political appointees; therefore, staffing is not subject to turnover with changes in Federal administrations. In terms of responding to participant turnover, the CBP office provides orientation for the incoming EC or PSC chairs, although not for other committees or teams due to the extensive resources required to keep up with turnover in such a large operation.

APPROACH TO DECISION MAKING AND CONFLICT RESOLUTION

As discussed above, the CBP has developed a defined decision-making process within an adaptive management framework. Under its Strategy Review System, the GITs and the WGs report on their progress to the Management Board on two-year cycles, beginning with a review meeting and followed

¹³⁶ U.S. Government Accountability Office, Chesapeake Bay Restoration Effort Needs Common Federal and State Goals and Assessment Approach, 3.

by seven quarterly progress meetings. The groups use the review opportunities to explain any challenges they are encountering and request any needed actions from the Management Board. This process allows for the organization to make changes to the goals, outcomes, and management strategies in its plans. The ChesapeakeDecisions tool guides the participants through the Strategy Review System and promotes transparency. There are three standard documents the groups submit through ChesapeakeDecisions during the review cycle - a Logic & Action Plan, a narrative analysis, and a presentation.

One of the CBP's core principles is consensus in decision making, meaning that all participants can "live with" the outcome, and it is the default method for reaching decisions. If consensus cannot be reached on the GIT or WG level, then the decision is elevated to the next level of the organization with a description of the positions of those for and against the proposal. If consensus cannot be reached on the EC, PSC, or Management Board levels, then decisions can be made by supermajority vote. When dissenting from a proposal, participants are asked to propose an alternative or a method for reaching one. The CBP also has adopted the University of Maryland Center for Leadership & Organizational Change's "consensus continuum," which allows participants to signal their level of support for a proposal - or allow a proposal they do not fully support to go forward without blocking it (i.e., "I trust the group and will not block this decision but need to register my disagreement").¹³⁷ Furthermore, there is a series of well-articulated steps in the decision-making process that allows for participants to discuss, raise concerns, address those concerns, and modify the proposal before returning to a consensus decision.

Transparency is a key element of the CBP's operations, which helps to build trust and accountability between agencies and stakeholders and for EC members to show responsiveness to their citizens. The CBP meetings are open to the public and meeting summaries are posted on the website. The organization's progress against its goals is also published on the ChesapeakeProgress website.

With the sprawling, cross-jurisdictional nature of the Chesapeake Bay effort, holding in-person meetings has been important for building relationships and trust between participants. Staff coordinators and chairs are responsible for setting agendas and running meetings, and generally third-party neutral facilitation has not been necessary. The CBP does have a facilitator on contract to step in when the need arises; the contractor also provides facilitation training for those who need it.

RELATIONSHIPS AMONG PARTICIPANTS

Over the years, the level of trust between CBP participants has had ebbs and flows. The CBP staff takes opportunities to support trust-building among participants. Since the development of the bay wide TMDL, EPA has been responsible for providing oversight of the jurisdictions' efforts to meet pollution load reduction targets established by the partnership for meeting the TMDL. This dynamic of the targets can complicate the relationship between the states, given that they rely upon each other to meet their assigned load. Even if the states have committed to meeting their assigned load, they may not have the resources to carry it out - eroding trust with other jurisdictions.

¹³⁷ Chesapeake Bay Program, "Governance and Management Framework for the Chesapeake Bay Program Partnership," 19.

The advent of the TMDL has also complicated EPA's role within the CBP, adding another dimension to the agency's responsibilities. Prior to the TMDL, agency staff were effectively fulfilling their role of coordinating and facilitating the partnership. As a Federal agency, EPA has the advantage of being able to bring resources, focus, and attention to the CBP. The addition of the regulatory responsibilities related to the establishment of the bay wide TMDL, however, has placed stress on the EPA's role as coordinator, transforming its relationship of an equal partnership to one of oversight. It can be challenging to navigate this dual relationship for the agency and the jurisdictions alike.

APPENDIX C: OVERVIEW OF ADDITIONAL MODELS

The following models illustrated at least some of the factors we were considering but were not as comprehensive as our key models listed above. We conducted a literature review focused on those illustrative factors.

BLACKFOOT CHALLENGE

The Blackfoot Challenge is a public-private, collaborative watershed management organization in Northwest Montana and a bit of Canada that was established in 1993.¹³⁸ It aims “to coordinate efforts to conserve and enhance natural resources and the rural way of life in the Blackfoot watershed for present and future generations.”¹³⁹ The organization was developed as a remedy to poor mining, logging, and livestock grazing practices; invasive weeds; recreational over-use; and large real estate development in the area.

GOALS AND MEASURABLE IMPACT

The organization coordinates responses to community needs. While there are project specific goals and objectives, there are no stated measurable, organizational-level goals on its website.¹⁴⁰ We would need to conduct interviews for information on organizational-level goals, goal-setting procedures, as well as measurement, evaluation, and adaptation practices. Since the Blackfoot Challenge started in 1993, it has established and managed over 100 programs and projects. Some example programs and outcomes include:

- “Comprehensive Conservation Easements. Starting in 1995, the Blackfoot Challenge and one of its primary partners, the USFWS, has secured conservation easement coverage on 90,000 acres involving 65 private landowners and 75 easements. This is 30% of all private property in the watershed.”¹⁴¹
- “The Blackfoot Community Forest Project. This is a comprehensive and pioneering effort to restore the ecological and biological integrity of 88,000 acres of Blackfoot land by purchasing private land from Plum Creek Timber and other private landowners, deeding it over to the US Forest Service (Lolo National Forest) in perpetuity, and creating a large common public, or community, area that is jointly owned and managed by community stakeholders.”¹⁴²
- “Endangered Species (other than fish) and Wildlife Conservation...Human-grizzly bear conflicts have been reduced by 67% since 2001 despite significant increases in bear sightings and anecdotal evidence over the last 10 years that grizzlies, listed as threatened under the ESA, are re-colonizing many parts of the Blackfoot area. Programs contributing to these results - more bears, yet fewer conflicts - include abatement measures such as the building of 14,000 linear feet of electrified predator-friendly fencing (60% of rancher’s calving yards are now fenced), the

¹³⁸ “History,” Blackfoot Challenge, accessed December 28, 2020, <https://blackfootchallenge.org/history/>.

¹³⁹ “History,” Blackfoot Challenge.

¹⁴⁰ “What We Do,” Blackfoot Challenge, accessed December 28, 2020, <https://blackfootchallenge.org/what-we-do/>.

¹⁴¹ Edward P. Weber, “Unleashing the Potential of Collaborative Governance Arrangements: Getting to Robust Durability in the Blackfoot Valley,” *Journal of Sustainable Development* 5, No. 7 (2012): 38.

¹⁴² Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 40.

installation of 80 bear-resistant dumpsters, and a carcass pickup program that removes dead animals (wild game, livestock, road kill) from private property and roads.”¹⁴³

BALANCED AND INCLUSIVE REPRESENTATION

Members include private landowners, industry users (e.g. a timber company), State and Federal land managers, Local Government officials, local business owners, conservation NGOs, and other watershed residents.

Blackfoot Challenge is purposefully designed as non-partisan, avoiding “pro-green” or “pro-development” labels. It maintains a reputation of being a forum for resolving disputes and solving problems.¹⁴⁴

The inclusive representation on the leadership team is discussed in the leadership section.

SUFFICIENT AND SUSTAINABLE FUNDING

The Blackfoot Challenge focuses on diverse, resilient funding from individual contributions, government, and private foundation money. This approach helps protect against the rise and fall of governments’ interest in certain approaches and programs. For example, in 2001 the Blackfoot Challenge nearly doubled its annual budgets to \$100,000.¹⁴⁵ Only two years later, it dramatically increased to \$600,000, and exploded in 2005 and 2006, to over \$2,000,000.¹⁴⁶ Most of that dramatic change came from government grants. All throughout, the Blackfoot Challenge continued to focus on a diversified approach. This helped when those larger numbers later began to fall somewhat.

One private funding strategy they use is requiring an annual minimum of \$5,000 “give or get” money for all partners, not just Executive Board members, as is quite common for non-profit organizations.¹⁴⁷ Starting in 2006, the Board set a goal of setting aside a \$3M endowment that, “allows the [Blackfoot Challenge] to jump on good ideas as they arise, rather than worrying about raising new funds.”¹⁴⁸ As of the recent update available on the website (2010), they were over two-thirds of the way toward meeting their goal.

¹⁴³ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 40.

¹⁴⁴ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 41.

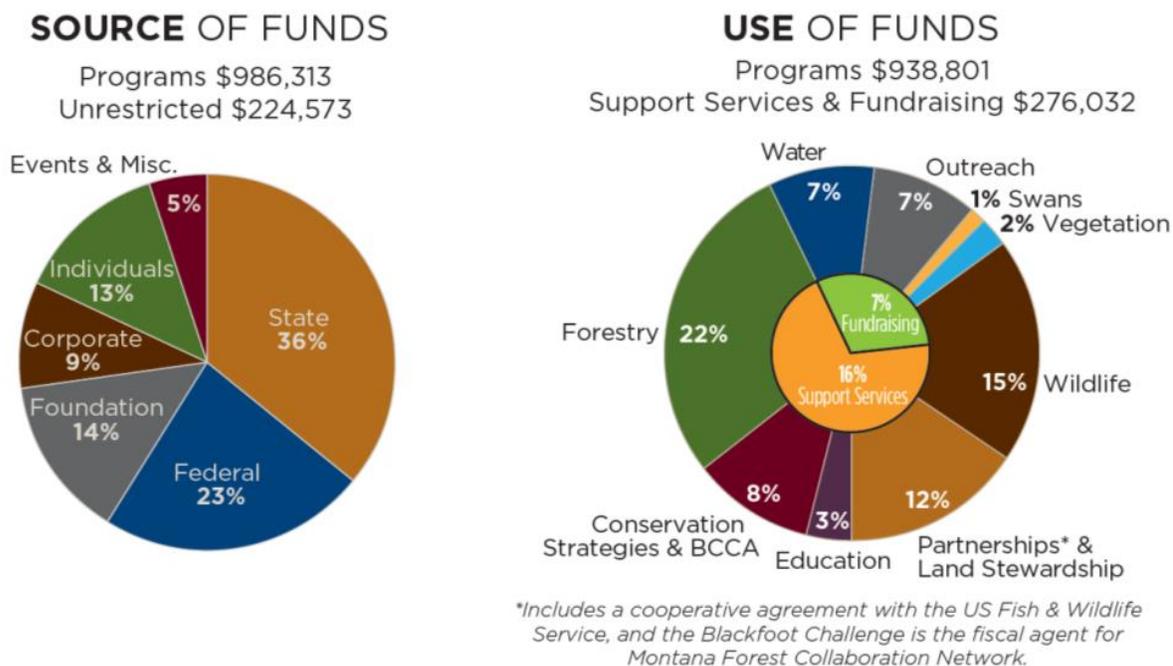
¹⁴⁵ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 38.

¹⁴⁶ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 38.

¹⁴⁷ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 44-45.

¹⁴⁸ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 45.

Figure 2. 2019 Source and Use of Funds¹⁴⁹



LEADERSHIP AND STAFFING

The Blackfoot Challenge has 23 board members (every public agency that manages land in the watershed has a seat on the board), 11 staff, 8 committees, and 7 work groups.¹⁵⁰ All meet monthly to share, listen, and prioritize work. Each work group is chaired by a board member.

The Blackfoot Challenge’s founders, and other Board members are described as “fully rooted. They live on the land, rely on the land, manage the land whether because they own it or, as government employees, they have a responsibility for it. They do not see their place as an intellectual position; instead they live and breathe the land. They love the place.”¹⁵¹

The Blackfoot Challenge’s leadership vision is to direct and ensure their relevant work is completed in accordance with their collaborative conservation mission. To do this, they aim for:

- “The presence of the [Blackfoot Challenge’s] hands-on board of directors
- The recruitment of ‘focal’ people
- The long-term perspective provided by the mission in combination with a selective partnering approach
- The embrace of staffing changes to fit the different stages of [Blackfoot Challenge] growth
- A core catalyst model of minimalist bureaucracy

¹⁴⁹ “Financials,” Blackfoot Challenge, accessed December 28, 2020, <https://blackfootchallenge.org/financials/>.

¹⁵⁰ “Our Team,” Blackfoot Challenge, accessed December 28, 2020, <https://blackfootchallenge.org/who-we-are/our-team/>.

¹⁵¹ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 42.

- And a commitment to transparency and accountability to others.”¹⁵²

The Blackfoot Challenge often delegates tasks and projects to on-the-ground problem solving initiatives and partners. “We want to keep the central staff small. That’s why we work hard to catalyze partners so they can work through program details and implement the programs. After all, they’re the ones with the expertise, they’re the ones with the experience getting things done.”¹⁵³ This delegation and small-staff focus is reflected in the Blackfoot Challenge’s expenditure patterns, with an average of over 89% of budget dollars going to programs.¹⁵⁴

The commitment to the core catalyst minimalist model of administration shows up in the [Blackfoot Challenge’s] expenditure patterns, which expends an average of over 89% of total budget dollars on programs in the years 2007 through 2009 (the practice of reporting program versus administrative expenditures started in 2007).”

RELATIONSHIPS AMONG PARTICIPANTS

Edward Weber (2012) conducted 32 interviews of Blackfoot Challenge key stakeholders, including on the topic of the character of the organization and its people.¹⁵⁵ The following are excerpts from those interviews:

- The Blackfoot Challenge is “loaded with good people and community leaders who act as a magnet for others. They are highly intelligent, passionate, it’s their home, their life and they enjoy the [Blackfoot Challenge] work.”¹⁵⁶
- The Blackfoot Challenge is seen as “a secure organization where participants have a high sense of self-worth in their own lives and what they are doing for the watershed.”¹⁵⁷
- The “[Blackfoot Challenge] is a serious organization that never forgets to have fun. That’s why we meet at Trixie’s a local pub to unwind and why we have community barbecues. I think it’s the most sexy, desirable, fun organization I’ve ever been affiliated with.”¹⁵⁸
- “The belief that ‘people make conservation happen’ emphasizes the individual responsibility that attaches to citizens of the Blackfoot, as opposed to relying solely on government agencies or others to achieve their mission.”¹⁵⁹

¹⁵² Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 42.

¹⁵³ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 43.

¹⁵⁴ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 43.

¹⁵⁵ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 43.

¹⁵⁶ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 41.

¹⁵⁷ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 41.

¹⁵⁸ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 42.

¹⁵⁹ Weber, “Unleashing the Potential of Collaborative Governance Arrangements,” 44.

ROUNDTABLE ON THE CROWN OF THE CONTINENT

The Crown of the Continent area is approximately 18 million acres in Montana, British Columbia, and Alberta, where 83% of the land is publicly owned.¹⁶⁰ The land faces many typical threats including residential development, invasive species, climate change, wildfires, etc.¹⁶¹

The Crown of the Continent Roundtable (Roundtable) started in 2007 with an aim to connect the over 100 government agencies, Tribes and First Nations, NGOs, and community level partnerships addressing changing land use and climate.¹⁶² Across this landscape and within these 100+ organizations are at least 14 jurisdictions, a central challenge to their work.¹⁶³

“The Roundtable should be viewed as a large-scale neighborhood association that promotes conservation and coordinated land stewardship.”¹⁶⁴ The Crown of the Continent Roundtable carries out its aim primarily through workshops and conferences, adaptive management projects, and policy dialogues. It’s leadership team both facilitates and is this “network of networks” with representatives from the local, subregional, and regional networks involved. Representatives’ own networks offer the Roundtable ideas and examples on both substance and process.

BALANCED AND INCLUSIVE REPRESENTATION

The Roundtable is focused on including all perspectives and communities within the landscape - Tribes and First Nations, businesses, colleges and universities, young people, conservationists, local officials, landowners, etc.

Diversity, equity, and inclusion are considered foundational cornerstones for the work the Roundtable seeks to accomplish. The Roundtable sees this focus as the reason it can successfully have open discussions about complex management issues and why the Roundtable has become a leader in collaborative large landscape conservation efforts.¹⁶⁵

Tribal and First Nations involvement has increased substantially for the Roundtable, in large part because of the Adaptive Management Initiative (discussed more below) which has targeted funding to projects using traditional knowledge, assisted Tribal management, and fostered connections with Tribes

¹⁶⁰ Patrick Bixler et al., “Networks and landscapes: a framework for setting goals and evaluating performance at the large landscape scale,” *Frontiers in Ecology and the Environment* 14, no. 3 (2016): 146.

¹⁶¹ Bixler et al., “Networks and landscapes,” 146.

¹⁶² Bixler et al., “Networks and landscapes,” 147; “About,” Roundtable on the Crown of the Continent, accessed December 28, 2020, <http://www.crownroundtable.net/about.html>.

¹⁶³ “Many Jurisdictions, One Landscape,” Roundtable on the Crown of the Continent, accessed December 28, 2020, <http://www.crownroundtable.net/many-jurisdictions-one-landscape.html>.

¹⁶⁴ “Many Jurisdictions, One Landscape,” Roundtable on the Crown of the Continent.

¹⁶⁵ “Home,” Roundtable on the Crown of the Continent, accessed December 28, 2020, <http://www.crownroundtable.net/>.

and First Nations.¹⁶⁶ The Roundtable Leadership Team includes representation from Confederated Salish and Kootenai Tribes and the Tribes of the Blackfoot Confederacy.¹⁶⁷

ACCESS TO NEEDED KNOWLEDGE AND SCIENTIFIC OR TECHNICAL INFORMATION

The Roundtable's key program is the Adaptive Management Initiative (AMI), a large-scale climate-adaptation program. AMI is a collection of local-scale projects selected by the Roundtable's Leadership Team, with the goal of sharing lessons learned and hopes of moving projects to a broader scale.¹⁶⁸

AMI supports projects that build resilience into the Crown's natural and human communities. Through grant funds from the Kresge Foundation, the AMI has allocated \$800,000 across 45 projects through the region.¹⁶⁹ The projects have leveraged up to five times that amount by interesting new donors and, at times, combining efforts.

The Roundtable also assesses the AMI program by monitoring the strength of relationships and network structure between organizations through progress reports. The Roundtable also monitors AMI participants actions and outcomes. This enables the Roundtable Leadership Team to set measurable goals for this program. As a result, the number of relationships between organizations has increased from 19, before the AMI started, to 169, just two years after AMI started.¹⁷⁰

Lessons learned from the AMI include:

- "Identifying and supporting leadership at all scales
- Building trust and identifying common goals
- Supporting existing work rather than replacing current initiatives
- Meeting people "where they are" and encouraging them to work together toward common goals
- Creating a strong backbone organization that can keep communication open and friendly, and promote the sharing of ideas that include new players
- Never underestimating the value of meeting face-to-face, welcoming partners, and establishing relationships."¹⁷¹

NATIONAL INVASIVE SPECIES COUNCIL

Although NISC does not meet our model selection criteria, there are lessons learned on unclear goals and insufficient funding we thought important to include.

¹⁶⁶ "Collaboration with Tribes and First Nations," Roundtable on the Crown of the Continent, accessed December 28, 2020, <http://www.crownroundtable.net/collaborations-with-tribes--first-nations.html>.

¹⁶⁷ "Collaboration with Tribes and First Nations," Roundtable on the Crown of the Continent.

¹⁶⁸ Bixler et al., "Networks and landscapes," 147.

¹⁶⁹ "Adaptive Management Initiative," Roundtable on the Crown of the Continent, accessed December 28, 2020, <http://www.crownroundtable.net/adaptive-management-initiative-ami.html>.

¹⁷⁰ Bixler et al., "Networks and landscapes," 151.

¹⁷¹ "Adaptive Management Initiative," Roundtable on the Crown of the Continent.

NISC was established under Presidential Orders 13112 and 13751.¹⁷² NISC's purpose is to provide vision and leadership for addressing invasive species and impacted ecosystems across the US. A primary duty includes publishing a National Invasive Species Management Plan. NISC is co-chaired by the Secretaries of the Interior, Agriculture, and Commerce, and its membership includes Secretaries and Administrators of many Federal Government departments and agencies.¹⁷³ NISC works with Federal groups and non-Federal stakeholders in support of their duties. There is a Federal Advisory Committee Act-established Invasive Species Advisory Committee serving as advisors to NISC.

Despite these nationally established bodies, NISC and the Invasive Species Advisory Committee, and the three management plans that have been produced, Federal-level invasive species research and management is still a significant conservation issue that has little coordination and has seen little progress.¹⁷⁴ While there are many contributing factors, two factors focused on in this report that likely contribute to the low levels of progress are insufficient overall goals and no additional funding to incentivize coordination.

GOALS AND MEASURABLE IMPACT

NISC and the Invasive Species Advisory Committee produced three management plans. A 2002 GAO report points out that the 2001 plan called for actions that would have contributed to invasive species prevention and control, but that there were no specific long-term goals for governments to strive for.¹⁷⁵ "For example, it is not clear how implementing the actions in the plan will move national efforts toward outcomes such as reducing new invasive species by a specific number or reducing spread of established species by a specific amount."¹⁷⁶

SUFFICIENT AND SUSTAINABLE FUNDING

The 2002 GAO report lists lack of funding and staff resources as a reason for the Federal Government's slow progress on actions in the management plans.¹⁷⁷ Invasive plant management work on Federal lands are often coordinated with State and Local Governments and contracted out. Federal funding for these activities is lacking in the West, receiving less attention and funding than wildfires though the spread and impact of invasive species is greater.¹⁷⁸ Federal funds are usually between two and three billion dollars annually, pieced together from a large array of programs.

¹⁷² "NISC Intro," Department of Interior, accessed February 1, 2021, <https://www.doi.gov/sites/doi.gov/files/uploads/nisc-intro-2020.pdf>.

¹⁷³ "About the Council," Department of Interior, accessed February 1, 2021, <https://www.doi.gov/invasivespecies/about-nisc>.

¹⁷⁴ M.R. Ielmini et al., *Invasive Plant Management and Greater Sage-grouse Conservation: A Review and Status Report with Strategic Recommendations for Improvement*. Cheyenne, Wyoming, 2015: Western Association of Fish and Wildlife Agencies, 3.

¹⁷⁵ U.S. Government Accountability Office, *Invasive Species: Federal Efforts and State Perspectives on Challenges and National Leadership*, Testimony Before the Subcommittee on Fisheries, Wildlife, and Water, Committee on Environment and Public Works, United States Senate, Testimony of Barry T. Hill, GAO-03-916T (Washington, DC: June 17, 2003).

¹⁷⁶ U.S. Government Accountability Office, *Invasive Species*.

¹⁷⁷ U.S. Government Accountability Office, *Invasive Species*, 2.

¹⁷⁸ Ielmini et al., *Invasive Plant Management and Greater Sage-grouse Conservation*, 3.

Along with coordinated work with the states, there is also a growing trend to shift the burden of invasive species control to states. State officials cite a lack of Federal funding for State invasive species work as a main barrier to invasive species prevention and reduction.¹⁷⁹ “In particular, states were concerned about not having sufficient funds to create management plans for addressing invasive species, and to conduct monitoring and detection, inspection and enforcement, and research activities.”¹⁸⁰

SOUTHEAST CONSERVATION ADAPTATION STRATEGY

SECAS is a regional partnership in the Southeastern U.S. and Caribbean that started in 2011 to protect land and at-risk species from climate change and over-development.¹⁸¹ “The purpose for creating SECAS was to strengthen collaboration among agencies and organizations responsible for the nation’s natural and cultural resources while honoring differing agency responsibilities and authorities...SECAS was also established to ensure that individual sub-regional conservation planning efforts, initially developed through the LCCs, contributed to a coordinated regional strategy.”¹⁸²

SECAS was started by the states involved in the Southeastern Association of Fish and Wildlife Agencies and the Federal agencies’ part of the Southeast Natural Resource Leaders Group with support from Southeast and Caribbean LCCs, the Climate Science Centers, and the Southeast Aquatic Resources Partnership.¹⁸³ Today, membership includes 16 states and territories, 13 Federal partners, and several other nonprofit partners.¹⁸⁴

GOALS AND MEASURABLE IMPACT

The vision of SECAS is “a connected network of lands and waters that supports thriving fish and wildlife populations and improved quality of life for people.”¹⁸⁵

The overarching goal of SECAS is “a 10% or greater improvement in the health, function, and connectivity of Southeastern ecosystems by 2060.”¹⁸⁶ This long-term goal is a combination of 12 regional ecosystem assessments covering the Southeast.¹⁸⁷ A singular goal like this helps simply describe SECAS’ work, attracts additional funding, identifies new collaboration opportunities, and brings in a diversity of partners.¹⁸⁸

¹⁷⁹ U.S. Government Accountability Office, *Invasive Species*, 3.

¹⁸⁰ U.S. Government Accountability Office, *Invasive Species*, 4.

¹⁸¹ Mawdsley et al., “AFWA President’s Task Force,” 19.

¹⁸² Mawdsley et al., “AFWA President’s Task Force,” 27.

¹⁸³ “Partners,” Southeast Conservation Adaptation Strategy, accessed February 1, 2021
<http://secassoutheast.org/partners>.

¹⁸⁴ “Partners,” Southeast Conservation Adaptation Strategy.

¹⁸⁵ “Our Goal,” Southeast Conservation Adaptation Strategy, accessed February 1, 2021
<http://secassoutheast.org/our-goal>.

¹⁸⁶ “Our Goal,” Southeast Conservation Adaptation Strategy.

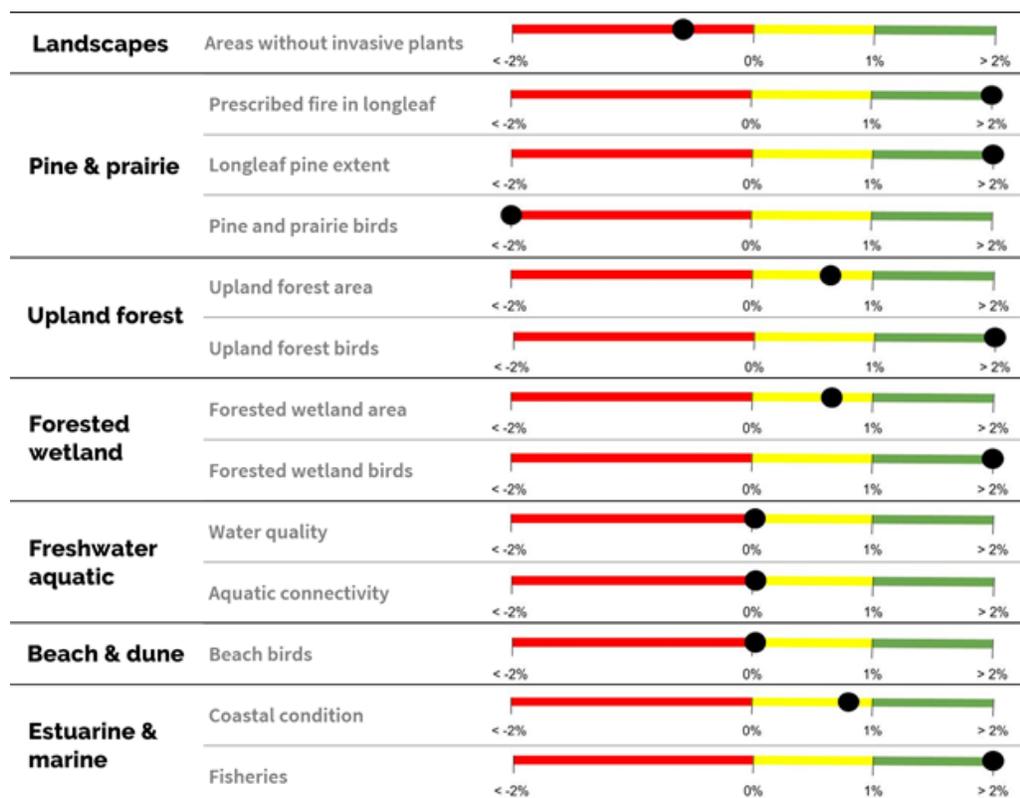
¹⁸⁷ “Our Goal,” Southeast Conservation Adaptation Strategy.

¹⁸⁸ “Our Goal,” Southeast Conservation Adaptation Strategy.

Near-term goals contributing toward the overarching goal include “1% improvement in the health, function, and connectivity of Southeastern ecosystems every 4 years”¹⁸⁹ and “1% increase in conservation actions within the Southeast Conservation Blueprint (Blueprint) every 4 years.”¹⁹⁰ These near-term goals plot minimum progress necessary to be on track to meet the long-term goal. The chart below tracks the first near-term goal.

SECAS tracks the most recent 3-6 years of data from existing Southeast monitoring programs and reports annually on progress towards this 10% goal.¹⁹¹

Figure 3. Estimated percent change in indicator over 4 years based on most recently available data¹⁹²



ACCESS TO NEEDED KNOWLEDGE AND SCIENTIFIC OR TECHNICAL INFORMATION

The Southeast Conservation Blueprint is a dynamic spatial plan made up of smaller sub-regional plans that identifies the most important conservation and restoration areas in the region. It is updated annually based on sub-regional inputs. More than 225 people from 100+ organizations have used the

¹⁸⁹ “Our Goal,” Southeast Conservation Adaptation Strategy.

¹⁹⁰ “Our Goal,” Southeast Conservation Adaptation Strategy.

¹⁹¹ “About SECAS,” Southeast Conservation Adaptation Strategy, accessed February 1, 2021

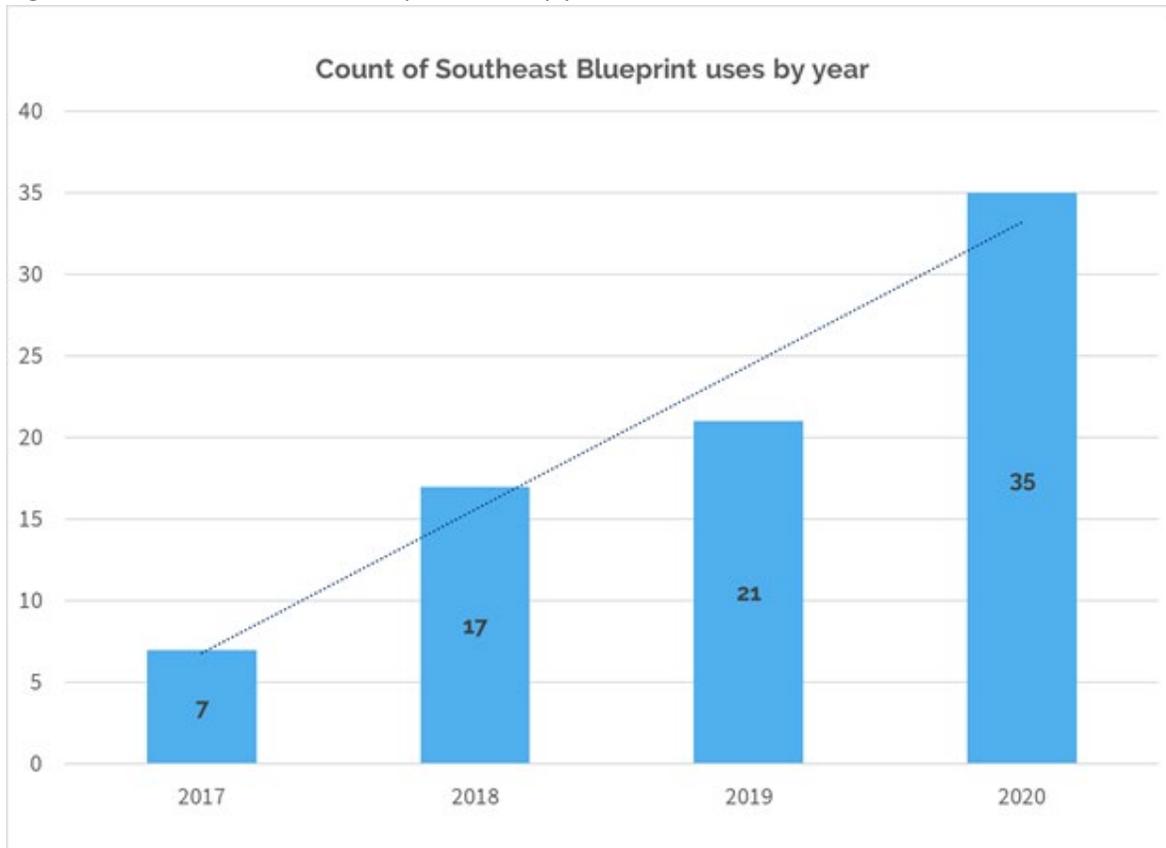
<http://secassoutheast.org/about>.

¹⁹² “About SECAS,” Southeast Conservation Adaptation Strategy.

Blueprint to inform their conservation decisions.¹⁹³ The Blueprint has also helped bring in over \$31 million in conservation funding.¹⁹⁴

The Blueprint is one map with the best available information on key species and habitats, and future threats. Naturally, the Blueprint evolves based on science, on-the-ground conditions, and input. It is currently on its fourth edition. Thus far, more than 1,700 people representing 500 organizations have contributed to the Blueprint.¹⁹⁵

Figure 4. Count of Southeast Blueprint uses by year.¹⁹⁶



As a complement to the Southeast Conservation Blueprint, a "Regional Species of Greatest Conservation Need" list was recently created from fifteen State Wildlife Action Plans. This will help prioritize conservation projects among partner states.¹⁹⁷

¹⁹³ "About SECAS," Southeast Conservation Adaptation Strategy.

¹⁹⁴ "The Southeast Conservation Blueprint," Southeast Conservation Adaptation Strategy, accessed February 1, 2021, <http://secassoutheast.org/blueprint>.

¹⁹⁵ "The Southeast Conservation Blueprint," Southeast Conservation Adaptation Strategy.

¹⁹⁶ "2020 - This Year in Review," Southeast Conservation Adaptation Strategy, accessed February 1, 2021, <http://secassoutheast.org/2020/12/16/2020-This-Year-in-Review.html>.

¹⁹⁷ "Priorities for conservation in Southeastern states: Newly created list of 'Regional Species of Greatest Need,'" South Atlantic Landscape Conservation Cooperative, accessed February 1, 2021, <https://www.southatlanticlcc.org/2019/10/08/priorities-for-conservation-in-southeastern-states-newly-created-list-of-regional-species-of-greatest-conservation-need/>

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APPENDIX E: LIST OF INTERVIEWEES AND AFFILIATIONS

Carin Bisland, Chesapeake Bay Program

Leanna Heffner, Northwest Boreal Partnership

Ken Mayer, Western Association of Fish & Wildlife Agencies

Tom Remington, Western Association of Fish & Wildlife Agencies

Rollie Sparrow, North American Waterfowl Management Plan

San Stiver, Western Association of Fish & Wildlife Agencies

Jeff Ver Steeg, North American Waterfowl Management Plan and the Playa Lakes Joint Venture

Dan Yparraguire, North American Waterfowl Management Plan

APPENDIX F: RESEARCH INTERVIEW PROTOCOL

List of Questions (different sub-questions selected for emphasis depending upon the model)

1. Please tell us about your measurable goals, how they direct your work, and how they change over time.
 - a. What are the articulated goals of your collaborative?
 - b. Is monitoring and adaptive management built into your collaborative's structure?
 - c. Are there clear signals of progress/interim outcomes for your collaborative and are they understood and measured by members?
 - d. Is your collaborative making progress on interim outcomes that signal progress on the way to longer-term goals or intended impacts?
 - e. Is there measurable on-the-ground impact? Or how do participants perceive the impact?
 - i. At which level are impacts expected – on individual members, on members' local environments, and/or on members' combined impact on their broader environment?
 - ii. If the goal is achieved or ultimate impacts observed, can a plausible or defensible case be made that your collaborative contributed to them?
2. Please tell us about who's involved in your collaborative body, their roles, and background.
 - a. Who is included in your collaborative body? Were any key groups excluded?
 - b. What are the roles of the participants in your collaborative body? What roles do they have, if any, in implementation of decisions?
 - c. Do participants have a clear sense of roles and how their role fits into overall collaborative goals?
 - d. Do the assembled members have the capacities (i.e. experience, skills, connections) to meet collaborative goals?
 - e. Are there mechanisms to support participation/access when needed (i.e., travel funding, options for remote participation)?
 - f. Are there mechanisms to account for participant turnover over the long term (e.g., orientation, designated handoff approach, documentation of decisions and institutional knowledge)?
3. What knowledge and scientific information is considered and how do you integrate it into your collaborative?
 - a. Does your collaborative have a well-defined mechanism to access needed knowledge and scientific information and integrate it into decision making? If so, how?
 - b. What types of knowledge and information are considered (i.e., is traditional ecological knowledge incorporated into the decision-making process)?
4. Please tell us about your funding sources and if they change over time.
 - a. Is funding new or existing?
 - b. What is the source(s) of the funding?
 - c. Are funding sources maintained over time or do they expire?
 - d. Does the collaborative adapt its resource plan over time?

5. Please tell us about the leadership, coordination, and staffing roles of your collaborative.
 - a. Who takes on the leadership role (may be organizations rather than individuals)?
 - b. Who does the day-to-day coordination and staffing?
 - c. To what extent are the leaders involved in the direction of your collaborative?
 - d. How dependent is your collaborative on a small number of individuals? Is there a mechanism to transition the leadership role? Has it been tested and how has it worked?
 - e. Are there mechanisms to account for staff turnover over the long term (e.g., orientation, designated handoff approach, documentation of decisions and institutional knowledge)?
 - f. Does the system survive turnovers in administration and leadership?

6. What is your collaborative's approach to decision making and conflict resolution?
 - a. What kind(s) of procedural and institutional arrangements does your group have (e.g., ground rules, operating protocols, charters)? How are they followed?
 - b. Is there a mechanism to adapt the procedural and institutional arrangements over time?
 - c. Are decisions based on consensus or majority rule? If consensus, how is it defined?
 - d. Is there a mechanism for dealing with conflicts? If so, how is it structured?
 - e. Is the collaborative body facilitated? If so, is there a third-party neutral facilitator or affiliated facilitator?

7. Please tell us about relationships among participants.
 - a. Do participants generally trust one another? Has that changed over time? If so, what has contributed to the change?
 - b. Do participants generally seem to understand and respect each other's positions and interests, whether or not they agree with them? If so, what contributed to creating that dynamic?
 - c. Is the collaborative generally perceived as legitimate by participants? What challenges might there be to the collaborative being perceived as legitimate?
 - d. Do participants generally have a sense of commitment to the collaborative effort? What tells you they are committed (or not)? Has it changed over time and if so, how?
 - e. Are all members contributing to your collaborative? Or – are there certain members who are not contributing? If so, why would you say that is occurring?
 - f. Are members achieving more through the collaborative than they could individually?

8. What are the most important lessons learned from your collaborative that should be applied to sagebrush habitat conservation efforts across landscapes?

9. Is there anything else that you'd like to add that wasn't covered here?

APPENDIX G: EXCERPT FROM “ADVANCING MULTI-SCALE PLACE-BASED CONSERVATION AND DEVELOPMENT”

Examples of Funding Opportunities for Multi-Scale Place-based Conservation and Development

Federal and state agencies have resources, knowledge, and the capacity to help coordinate large landscape efforts, and they are already responsible for lands and water bodies that often become the focus of large landscape conservation. Linking homegrown efforts to broader state and federal capacities will likely generate the most effective action on the ground (Mckinney, Scarlett and Kemmis, 2010).

The Natural Resources Conservation Service’s (NRCS) Regional Conservation Partnership Program, authorized by the 2014 Farm Bill, used partnerships to stretch and multiply conservation investments and reach conservation goals on regional or watershed scale with greater certainty of funding. Unlike past annual allocations, this program was designed to support the Sage Grouse Initiative for 4 years through the life of the 2014 farm bill (NRCS 2015).

Members of the **NE Association of Fish and Wildlife Agencies** came together to pool and leverage funds from each state for regional and landscape-scale conservation efforts through the Regional Conservation Needs program. Additionally, in 2015, a Blue Ribbon Panel convened by the Association of Fish and Wildlife Agencies recommended a new approach for funding fish and wildlife conservation efforts that could potentially direct up to \$1.3 billion per year in existing oil and natural gas revenues to the conservation of Species of Greatest Conservation Need identified in State Wildlife Action Plans (AFWA 2017).

In Maine, the **Downeast Lakes Land Trust (DLLT)** has recognized the climate value of landscape conservation and has innovated around utilizing forest management projects as a means of generating approximately \$6 million in revenue through carbon offset markets (Network for Landscape Conservation, 2018b).

Forest resilience bonds in the western United States represent a public-private partnership where investors pay for high-priority forest restoration and then get paid back by the beneficiaries: primarily the water utility (for clean and abundant water supply), the USFS (for decreased fire risk), and in some cases state and local governments (for avoided fire suppression costs, avoided carbon emissions, protected communities, and job creation) (Network for Landscape Conservation, 2018b).

Strategies that quantify ecosystem services rely on market-based mechanisms to achieve positive conservation outcomes as well as financial returns, complement traditional funding mechanisms and have potential to help close funding gaps, and private and public conservation investment in those values has emerged as a significant and rapidly growing source of conservation financing (Network for Landscape Conservation, 2018b).

The value of domestic forests could be increased by a **policy recognizing the carbon sequestration benefits of their sustainable management and of long-lived forest products**. The value proposition of working forestlands will be enhanced through monetization of ecosystem services. Carbon markets, payment for ecological services, and upstream watershed protection could be built into landscape-scale conservation approaches to engage large landowners. (Smith et al., 2016).

Representatives of organizations experienced in conservation transactions have noted the potential for high impact on conservation if **fee or easement acquisition structures could be adjusted**. If land managers can successfully communicate conservation impact and value to investors, timberland investment vehicles could be restructured as revolving funds or perpetual investment models that encourage investors to think long term (Smith et al., 2016).

There is a need to **develop new funding mechanisms** such as tax credits like the new market tax credits. Existing federal programs could be updated to create flexible funding and high-conservation-impact programs. For example, the Farm Bill could represent an opportunity to update and increase flexibility in the USFS's Forest Legacy program, allowing funding to be used for multiple conservation incentives or purchases beyond conservation easements or fee to purchase (e.g., carbon) (Smith et al., 2016).