ASSOCIATION of FISH & WILDLIFE AGENCIES

SCIENCE & RESEARCH COMMITTEE
Chair: Russ Mason (MI)
Vice-Chair: Jason Sumners (MO)
Staff: Jonathan Mawdsley (AFWA)
2020 Association of Fish and Wildlife Agencies Annual Meeting
Thursday September 10, 2020
9:00 AM – 11:00 AM

Agenda

1. Overview of the Science and Landscape Priorities document (Jonathan Mawdsley);
2. Discussion of the new roles and responsibilities of the AFWA Science and Research Committee (Russ Mason and Jonathan Mawdsley)
3. Identify and codify Science and Research Committee sub-groups to address the new roles and responsibilities, together with 'owners' or sub-chairs for each of the sub-groups;
    a. Federal Partners
    b. Cooperative Research Units and University partners (e.g., PERM faculty at MSU)
    c. State Agencies (those that have research internal capacities)
    d. AFWA Committees
    e. Regional Associations (and their science partnerships)
    f. NGOs (e.g., TWS, AFS)
4. Consideration and approval of a short statement to the AFWA Executive Committee supporting the recommendations of the Science and Landscape Priorities document;
5. Call for a Science and Research Committee meeting in 6-8 weeks among the sub-group chairs to talk about plans, opportunities, challenges.

- Adjourn

AFWA President's Task Force on Shared Science and Landscape Conservation Priorities: Final Report

AFWA President's Task Force on Shared Science and Landscape Conservation Priorities: Final Report

A Report of the Association of Fish and Wildlife Agencies

Task Force Chair: Jonathan Mawdsley, Association of Fish and Wildlife Agencies
Task Force Vice-Chairs: Paul Johansen, West Virginia Division of Natural Resources; Russ Mason, Michigan Department of Natural Resources

Members of the Task Force
Doug Austen (American Fisheries Society)
Craig Bonds (Texas Parks and Wildlife Department)
Judy Camuso (Maine Department of Inland Fisheries and Wildlife; Craig McLaughlin, Proxy)
Jim Douglas (Nebraska Game and Parks Commission)
Jim Heffelfinger (Arizona Game and Fish Department)
Kelly Hepler (South Dakota Game, Fish, and Parks)
Mark Humpert (Association of Fish and Wildlife Agencies)
William Moritz (Wildlife Management Institute)
Gordon Myers (North Carolina Wildlife Resources Commission)
Kelley Myers (U. S. Fish and Wildlife Service)
Sara Parker Pauley (Missouri Department of Conservation)
Travis Ripley (Fish and Wildlife Stewardship, Government of Alberta)
Deborah Rocque (U. S. Fish and Wildlife Service; Noreen Walsh, Proxy)
David Scott (U. S. Fish and Wildlife Service)
Melanie Steinkamp (U. S. Geological Survey)
John Thompson (U. S. Geological Survey)
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Additional Contributors
Mallory Martin (Southeast Conservation Adaptation Strategy)
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ACRONYM GLOSSARY

ACJV – Atlantic Coast Joint Venture
AFWA or Association – Association of Fish and Wildlife Agencies
APHIS – Animal and Plant Health Inspection Service
Committee – AFWA Science and Research Committee
CRUs – Cooperative Fish and Wildlife Research Units
CWD – Chronic Wasting Disease
EPA – Environmental Protection Agency
ESRI – Environmental System Research Institute
FWS – United States Fish and Wildlife Service
IMFC – Inland and Marine Fisheries Committee (WAFWA)
JVs – Migratory Bird Joint Ventures
LCC – Landscape Conservation Cooperative
LCD – Landscape Conservation Design
MAFWA – Midwest Association of Fish and Wildlife Agencies
MLI – Midwest Landscape Initiative
NALCC – North Atlantic Landscape Conservation Cooperative
NEAFWA – Northeastern Association of Fish and Wildlife Agencies
NEFWDTC – Northeast Fish and Wildlife Diversity Technical Committee (NEAFWA)
NFHP – National Fish Habitat Partnership
NFWF – National Fish and Wildlife Foundation
NGOs – Nongovernmental Organizations
NOAA – National Oceanic and Atmospheric Administration
NPS – National Park Service
POCs – Points of Contact
RCN – Regional Conservation Needs (NEAFWA)
RCOA – Regional Conservation Opportunity Area (NEAFWA)
RFPs – Request for Proposals
RSGCN – Regional Species of Greatest Conservation Need (NEAFWA)
SA – Science Applications Program (FWS)
SEAFWA – Southeastern Association of Fish and Wildlife Agencies
SECAS – Southeast Conservation Adaptation Strategy
SENRLG – Southeast Natural Resource Leaders Group
SFWA – State Fish and Wildlife Agency
SGCN – Species of Greatest Conservation Need
SWAPs – State Wildlife Action Plans
UMASS – University of Massachusetts
US – United States
USFS – U.S. Forest Service

USGS – U.S. Geological Survey
WAFWA – Western Association of Fish and Wildlife Agencies
WNTI – Western Native Trout Initiative (WAFWA)

ADDITIONAL MATERIALS

A dedicated website containing links to additional resources recommended by Task Force members has been established at https://www.fishwildlife.org/afwa-acts/shared-science

Executive Summary

This report provides recommendations from the "AFWA President's Task Force on Shared Science and Landscape Conservation Priorities" in the following three thematic areas:

1) Establishing Shared National Science Priorities for Fish and Wildlife Conservation and Management

We recommend the AFWA Science and Research Committee solicit information on a periodic basis regarding current and future anticipated science and research priorities from: SFWA directors; other AFWA committees with science and research interests; regional AFWAs; regional conservation partnerships (e.g., MLI, SECAS, Nature's Network, WNTI); and national science partners (e.g., FWS, USGS, CRUs, USFS, NOAA, NPS, APHIS, etc.).

The Committee will also continue to conduct a more formal survey of SFWA science needs (the State Science Needs Survey) on a 2- to 4-year timeframe, or as otherwise needed.

Committee members will review any new science priorities and compare and align these with existing national priorities identified through the State Science Needs Survey and any previous iterations of national priority-setting exercises.

Based on the information collected and synthesized, the Committee will report regularly to the AFWA Executive Committee on any changes or new developments regarding national science priorities. These updates are meant to assist the AFWA Executive Committee in the identification and establishment of priorities as a whole.

2) Strengthening Regional Science-Based Conservation Partnerships

We recommend regional science-based fish and wildlife conservation partnerships consider aligning their operations and activities to the extent possible with the guidance contained in the 2018 AFWA Resolution on Fish and Wildlife Conservation at Landscape Scales and the accompanying Guiding Principles document. We further recommend that new and existing regional partnerships establish strong structural and operational relationships with their regional AFWAs, and that these partnerships work collaboratively with the regional associations to identify and promote shared science priorities and conservation actions.

3) State Wildlife Action Plans as a Framework for Regional Coordination and Collaboration

In recognition of the ever-changing nature of wildlife and habitat conservation, we recommend that AFWA convene a diverse work group to assess and develop recommendations on how SWAPs can improve range-wide conservation of SGCN) and contribute to regional and/or national landscape conservation priorities. These recommendations would help ensure the next generation of SWAPs are even more effective, accessible, and relevant to agencies, partners, stakeholders and others involved in conservation of fish and wildlife. Specifically, we recommend that AFWA:

i. Review the eight required elements for SWAPs and Best Practices for State Wildlife Action Plans: Voluntary Guidance to States for Revision and Implementation (November 2012) and make recommendations that would improve their ability to take on regional and landscape conservation challenges.

ii. Identify and promote the use of methods or best practices to overcome barriers to multi-jurisdictional, multi-sectoral landscape collaboration, including inconsistent terminologies, data standards, geospatial products and tools, and organizational barriers.

iii. Recommend steps to assure that SWAPs can better meet the needs of partners and are accessible to landscape conservation practitioners so that strategies to conserve SGCN are relevant and integrated into broader conservation efforts.

iv. Identify tools or models that foster development of regionally integrated SWAPs, including approaches such as identification of regional priorities, increased consistency, geospatial tools, and grants programs, that might support implementation of integrated plans.

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Introduction

President Kelly Hepler and the members of the Executive Committee of AFWA established the "AFWA President's Task Force on Shared Science and Landscape Conservation Priorities" in January, 2020, in order to address a set of interrelated questions facing the Association and its member agencies and partners. One set of questions relates to the very practical issue of how the Association might identify, evaluate and prioritize scientific research to guide the Association's own conservation work. The other set of questions focuses on how the Association might best support the growth and development of regional and landscape-scale fish and wildlife conservation partnerships. In commissioning this task force, the President and leadership noted the potential for significant connections between the activities of these regional and landscape-scale conservation partnerships as they identify their own scientific and landscape-scale conservation priorities, and the work of the Association in identifying its own national-level scientific and conservation priorities.

For 118 years, the Association has played a critical role in initiating and facilitating a broad range of science-based conservation initiatives. Nonetheless, the Association lacks a clearly articulated process for identifying scientific priorities. This report outlines how such a process might be implemented using the existing committees and decision-making structures within the Association.

From the outset, we recognized the critical importance of linking priority-setting activities to ongoing efforts within the Association, its regional affiliates and its partners to create and enhance landscape-scale and regional-scale conservation efforts. These regional and landscape-scale partnerships naturally coalesce around shared conservation priorities, and they can help the Association identify national science and conservation priorities and build upon this regional work.

The second chapter of this report and Appendix A include significant new information regarding steps the Association and its regional affiliates can take in order to strengthen regional and landscape-scale conservation partnerships. This information has been derived from questionnaires and structured interviews completed by staff and leadership of four existing regional partnerships: Nature's Network in the Northeast, SECAS in the Southeast, MLI in the Midwest and WNTI in the western states.

The third chapter and Appendix B examine how SWAPs could potentially serve as a common framework for structuring and coordinating regional and landscape-scale conservation

partnerships. Each of these plans is organized around eight common elements that are shared across all 56 plans developed by the individual states and territories. Because of these shared elements, SWAPs have the potential to serve as a common framework for regional, landscape-scale, and national conservation efforts. We recommend the Association convene a working group to investigate opportunities for coordinating regional and landscape-scale conservation efforts using the SWAPs as a shared organizing framework.

Chapter 1: Framework for Establishing Shared National Science Priorities for Fish and Wildlife Conservation and Management

The AFWA President's Task Force on Shared Science and Landscape Conservation Priorities sought to build on landscape conservation successes by describing and formalizing a process to arrive at shared priorities; a process by which science needs and scientific research priorities for fish and wildlife conservation and management can be identified, communicated, and synthesized. These shared needs could be advanced at regional and national levels within the context of AFWA, its state and federal member agencies, the regional AFWAs, and their regional conservation partners.

The shared priorities that are identified through this process will be used by AFWA and partners in a variety of ways, including (but not limited to):

- Identifying areas for consideration and discussion among members of the AFWA Executive Committee and between AFWA's senior leadership and other state, federal, provincial, and territorial leaders.
- Identifying research categories and important topics for funding under the Multistate Conservation Grants Program.
- Identifying thematic areas and topics for inclusion in AFWA's annual Science Work Plan for AFWA's scientific staff.
- Identifying priority topics for consideration by AFWA's Science and Research Committee and other standing committees and subcommittees with interests in science, research, and landscape conservation.

Proposed Process for Identifying Shared Priorities

On a regular basis (or as needed by the AFWA Science and Research Committee or senior AFWA leadership), the Committee will invite various individuals, groups and organizations to share new or updated science priorities which might have emerged since the preceding AFWA State Science Needs Survey:

- SFWA Directors.
- Other AFWA Committees with science and research interests.

- Regional AFWAs in the Midwest, Southeastern, Northeastern and Western U.S. (i.e., MAFWA, NEAFWA, SEAFWA, and WAFWA, respectively).

- Regional Partnerships (e.g., MLI, SECAS, Nature's Network, WNTI, etc.).

- National Science Partners (e.g., FWS, USGS, USGS CRUs, USFS, NOAA, NPS, APHIS, etc.).

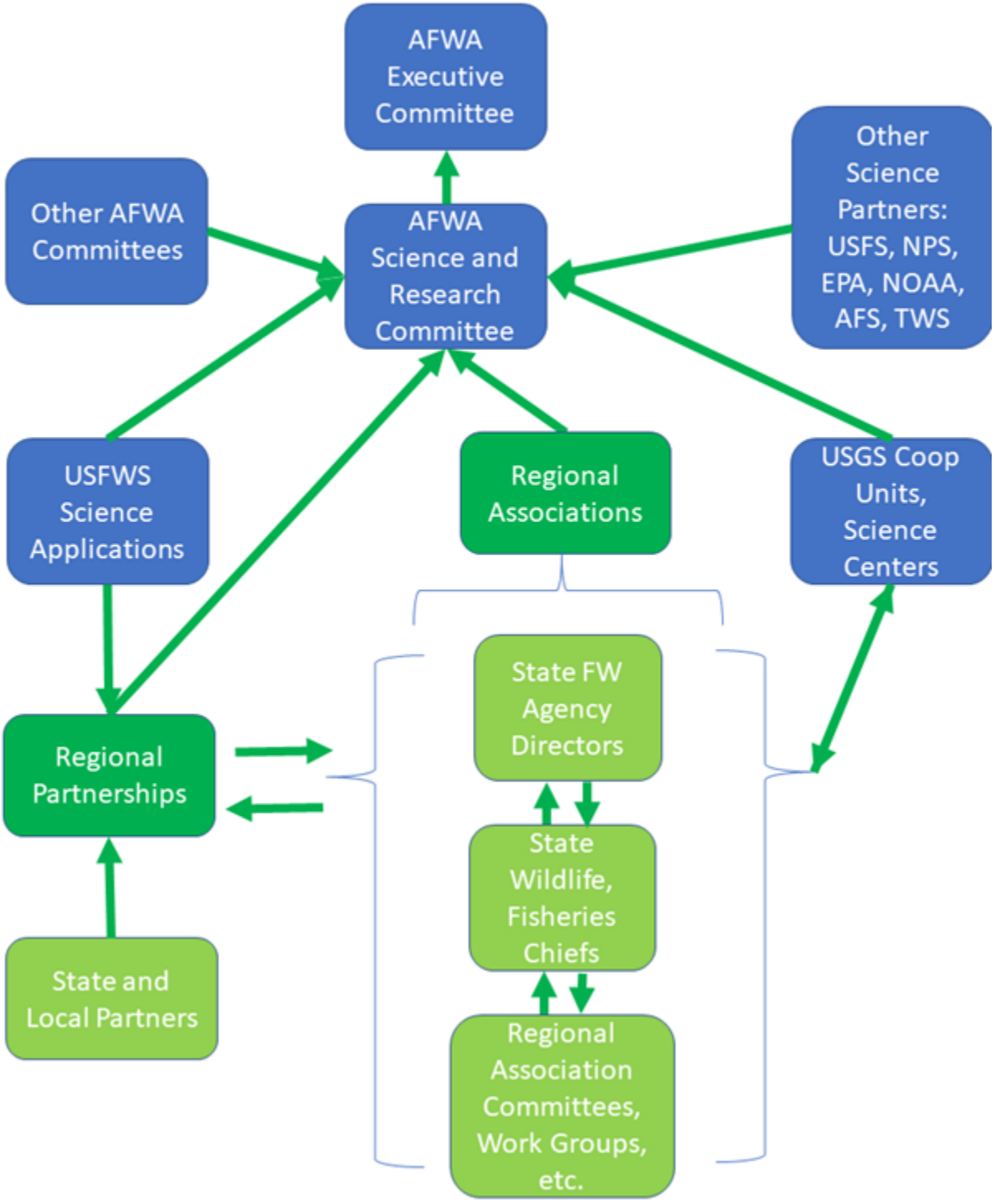
Committee members will review emergent priorities and add or align them with established priorities already identified through the State Science Needs Survey and any previous iterations of national priority-setting exercises.

The Committee also will continue to conduct a more formal periodic survey of SFWA science needs (the State Science Needs Survey) every 2- to 4-years, or as otherwise needed. This survey will inventory scientific and research needs as identified by SFWA leadership, particularly agency Directors, and will help guide the work of the committee itself. The results of the survey also will be communicated to Directors and other appropriate audiences within the broader AFWA network to inform broader priority-setting efforts.

Based on the information collected and synthesized, the Committee will report regularly to the AFWA Executive Committee on any changes or new developments regarding science priorities. The AFWA Executive Committee will take these recommendations under advisement in its own process of identifying and setting priorities for AFWA.

The following diagram illustrates possible pathways of information flow from the existing partners and leadership entities to the AFWA Executive Committee for the identification and selection of national science priorities for fish and wildlife conservation and management.

Information Flow for Identifying Shared Science Priorities for Fish and Wildlife Conservation



Existing Elements

The AFWA Executive Committee sets overall priorities and goals for AFWA, on at least an annual basis. The AFWA Executive Committee receives input on these priorities from the AFWA Science and Research Committee, the Regional AFWAs, AFWA staff, and individual SFWA directors. The Executive Committee will identify its own internal process for setting priorities that will include input from these and other sources as needed, as well as the expert judgment of its members and their supporting staff. Results of this priority-setting exercise will be communicated to AFWA staff and to AFWA's member agencies and organizations.

The **AFWA Science and Research Committee** currently undertakes a State Science Needs Survey on a regular basis (every 2-4 years or as otherwise needed) in order to identify highest priority science needs for the SFWAs. In the most recent survey (2019-2020), the survey instrument was developed jointly by AFWA and FWS SA staff. It was distributed to the Directors of all 50 SFWAs for their consideration and completion. Initial results of the survey were shared with AFWA and FWS leadership at the North American Wildlife and Natural Resources Conference in 2020.

The **Regional AFWAs** (MAFWA, NEAFWA, SEAFWA and WAFWA) may, at their discretion, identify their own regional science priorities based on input received from the AFWA State Science Needs Survey, the Regional Partnerships, their own members, SFWA directors, and expert opinion and judgment of state agency staff. Such priorities can be communicated directly to the Committee and to the AFWA Executive Committee by the representatives from each of the regional associations who are appointed to those committees.

National Science Partners include those agencies or programs that deliver actionable conservation science to state and federal fish and wildlife management agencies. Such programs include USFS Research and Development, USGS Ecosystems, USGS CRUs, NOAA Fisheries Science and Research, USFS, APHIS (including Wildlife Services), multiple programs at EPA, and NPS Science and Research. Each of the national science partners has its own internal mechanisms and processes for identifying science and research priorities. FWS SA occupies a special position as the facilitator of regional partnerships which provide infrastructure for identification of shared scientific priorities at a regional level. USGS CRUs also occupy a special position in many states, as these programs already have a well-established mechanism in place for identifying shared scientific priorities in collaboration with SFWAs, the FWS, and other conservation partners. Other key national science partners include the scientific and professional societies, particularly the American Fisheries Society and The Wildlife Society.

State Fish and Wildlife Agency Directors are the senior decision-makers in each state regarding issues of fish and wildlife conservation and management. Each state's wildlife or natural resource management agency has identified a single official to represent that state to AFWA. That individual is considered the "Director" by AFWA for purposes of decision-making and the setting of priorities within AFWA. SFWA Directors have broad authority over the operations of AFWA and will have multiple opportunities to provide input to the priority-setting process proposed here, including through regional AFWAs, regional partnerships, the AFWA Science and Research Committee, and the AFWA Executive Committee.

New Coordinating Role for AFWA Science and Research Committee

The Task Force recommends that the Committee be charged with identifying science priorities and recommending actions (as needed) to the AFWA Executive Committee on a regular basis. Committee leadership and staff will solicit information regarding current science priorities from national science partners, the regional AFWAs, regional conservation partnerships, and individual agencies engaged in science-based fish and wildlife conservation and management. Committee members will meet on a regular basis (at a minimum twice a year at the AFWA fall meeting and the North American spring meeting) in order to review and align the science priorities which have been identified by these AFWA members and partners. The resulting set of integrated science priorities will be advanced to the AFWA Executive Committee for their consideration. The Task Force further recommends that the Committee examine its membership to assure that it includes senior scientific leadership from the FWS, USGS (including CRUs), USFS, the major professional societies, and at least 4 SFWA Directors representing the 4 regional AFWAs.

Conservation Priorities from the Ground Up: The Importance of Input from the Cooperative Fish and Wildlife Research Units

The USGS CRU Program currently consists of 40 research units in 38 states. Each unit includes USGS scientific research staff, students, interns, and postdocs, federal conservation and management partners such as FWS, non-profit partners such as the Wildlife Management Institute, and senior leadership from the SFWAs. Each Unit hosts an annual coordination meeting where a set of shared scientific research priorities and research topics are identified across all of the partners in the Unit. The process that is used by the partners in each Unit for identifying and prioritizing these shared priorities could be adopted by the Committee and its members as they seek to combine information from multiple national conservation and science partners into a seamless set of national priorities. The priorities themselves could also be forwarded by the regional supervisors within the CRU Program to the Chief of the CRU

Program, who currently sits on the AFWA Science and Research Committee, for inclusion in the AFWA priority-setting process outlined in this chapter.

The Important Role of Regional Partnerships

Regional AFWAs may choose to establish (or to expand) variations of SECAS or MLI where SFWAs and key federal partners (particularly FWS SA, USGS, USFS, NPS, and APHIS Wildlife Services) can cooperatively identify shared conservation needs. Academic and NGOs with appropriate and practically useful expertise in science-based fish and wildlife management and conservation might also be invited to participate. The AFWA Landscape Resolution could serve as an initial guiding principles document for these regional cooperative forums. Naturally, each forum would develop its own processes for identifying science needs and science priorities and decide how best to incorporate a landscape conservation context to science and conservation delivery. One possibility could be the development of sub-regional groupings, as appropriate, whose findings could be accumulated into regional perspectives. A National Forum could also potentially be developed either as a stand-alone entity or as a subcommittee of the AFWA Science and Research Committee with representative(s) from each of the regional forums and a few Federal agency leaders (e.g., FWS, USGS, USFS) to agree on common high-level guiding principles, landscape priorities impacting multiple regions, and/or science needs that transcend geographies and capacity.

FWS leadership and staff would be engaged in all regional forums and also participate through membership on the Committee. Science issues that are sub-regional but multi-state shared priorities could be addressed by regional FWS SA programs, local CRUs, USGS Climate Adaptation Science Centers or other USGS Science Center capacity and expertise, as well as by USFS and APHIS Wildlife Services programs where there is shared interest, capacity, and expertise.

Definitions

One of the biggest challenges in discussing "priorities" is that this word can be used to describe a very broad scale of topical areas and potential actions, ranging from international priorities such as addressing global biodiversity loss all the way down to the sequence of activities that each of us undertakes in a given day.

To help clarify the focus of this task force and this report, we offer the following definitions. The term "priority" as used by a state or federal fish and wildlife management agency may refer to:

General themes: Broad thematic areas of more general interest, often corresponding with professional or academic specialties, each having its own specialized practices, terminology, and

body of knowledge. Examples include wildlife disease, invasive species, and endangered species management.

Sub-themes are logical divisions within each of the general themes, which often have their own specialized bodies of knowledge and practices. Examples of sub-themes under the wildlife disease general theme might include CWD, white-nose syndrome, and amphibian chytrid fungus.

Research needs are specific pieces of information, technology, or data which have been identified as priorities by research or management agencies and which will contribute to an improved understanding of a particular theme or sub-theme, leading in turn to improved management. Research needs for CWD would include improved live animal diagnostic tools, development of site remediation technologies, and better knowledge of disease transmission rates.

Research questions are fully formulated problem statements, ideally developed collaboratively between researchers and managers, suitable for scientific inquiry.

Priorities are topics or thematic areas which have been selected by an agency, organization, or partnership for programmatic focus and dedicated resource allocation.

Science priorities are priorities, generally at the general theme or sub-theme level, which have been identified by the scientific staff and senior leadership of an agency or organization.

Landscape conservation priorities are priorities, generally at the general theme or sub-theme level, which have been identified by the partners and leadership of a regional landscape conservation partnership.

Chapter 2: Strengthening Regional Science-Based Conservation Partnerships

The second major focus of the AFWA President's Task Force on Shared Science and Landscape Conservation Priorities was to identify concrete steps or actions that could help to strengthen current and future regional conservation partnerships. In order to identify such actions, Task Force members and partners surveyed the staff and leadership of four existing regional landscape conservation partnerships: SECAS, MLI, Nature's Network, and WNTI. These four partnerships were selected by the Task Force as examples of multi-jurisdictional conservation partnerships which are associated with each of the four regional AFWAs (Northeast, Southeastern, Midwest, and Western). Each of these partnerships differs in important ways in its age, conservation focus, structure, organizational history and development, and current sophistication and complexity. By asking questions of a variety of partnerships which are currently located at different stages of organizational growth and complexity, we felt that our survey effort could help to identify a concrete set of well-defined actions that could be applied immediately in order to benefit a broader range of current as well as planned partnerships.

In the chapter that follows, the key findings section provides a synopsis of the common elements and unique attributes of the four partnerships, including key messages and conclusions. Following the executive summary, a brief overview of each partnership is provided. Detailed responses to specific questions that were posed to the partnerships by AFWA can be found in the Appendix.

This review and the detailed responses to the AFWA questions were compiled by Mallory Martin (SECAS), Ed Boggess and Kelley Myers (MLI), Rick Bennett (Nature's Network), and Jim Heffelfinger and Therese Thompson (WNTI).

Key Findings

The magnitude of challenges facing natural resource conservation is such that collaborative approaches across multiple jurisdictions are needed. As a result, numerous landscape scale conservation partnerships have arisen to address the scope of those challenges in a comprehensive manner.

The four partnerships featured in this review have one overarching purpose in common, that is, to work collaboratively at landscape scales to address shared conservation priorities. This common purpose is succinctly phrased by Nature's Network as working to deliver "the right actions in the right places." Each partnership also embraces a broad perspective, working

through multiple sectors, and strives to leverage the diversity of participation and engagement to accomplish more collectively than is possible working individually. These four partnerships also have a common focus of sustaining and connecting healthy ecosystems, conserving species and habitats, and improving the effectiveness of management decisions and actions within and across their identified boundaries.

While there are broad similarities and common elements among the regional partnerships in their purpose, vision, and direction, there are also significant components unique among them that reflect their regional diversity and the local priorities of their partners and stakeholders. Most notably, the organizational and governance structures of each partnership are based on the needs of the partners and may originate through a detailed formal charter or through an *ad hoc* guiding coalition. Regardless, participation of SFWAs and FWS is a peer-to-peer arrangement in each partnership that formally respects differing agency responsibilities and authorities. The partnerships also feature a variety of differing products, tools, and other outputs designed to support decision making at various scales, specific to the needs and desires of their partners and stakeholders.

Several key messages and significant conclusions emerged from the reflection of the partnerships on their evolution and their answers to the AFWA questions. These key messages relate to factors that contribute to each partnership's success and include:

- Recognition that there is no single organizational structure or pathway for successful landscape partnerships; one size does not fit all needs
- Successful landscape partnerships evolve organically and reflect the priorities and desires of partners and stakeholders
- Success depends on effective relationship building and operates from a foundation of trust among a broad diversity of partners
- Recommended actions of landscape partnerships should be voluntary and non-prescriptive, and should result from consensus-based operational approaches
- Partnerships deliver value when there is a focus on tangible accomplishment, driven by the shared priorities of their partners
- Successful landscape partnerships require and benefit from effective communications, strong leadership from within, and dedicated and fully supported coordination functions to advance the interests of the partnership

Supporting those actions that reinforce the key messages is important for establishing new partnerships and for advancing and continuing the success of existing landscape conservation partnerships. At a minimum, the four partnerships examined in this review each have strong structural and operational relationships with their regional AFWAs, and support and share common drivers of success. They also recognize or rely upon the applicability of the 2018 AFWA Resolution on Fish and Wildlife Conservation at Landscape Scales and its Guiding Principles as a resource to help guide and direct their actions. Examining these key messages in combination with the responses to the specific questions provides models for other partnerships to accomplish the common purpose of achieving the right actions in the right places.

Partnership overviews

SECAS Overview

The Southeast Conservation Adaptation Strategy is a regional conservation initiative that spans the Southeastern U.S. and Caribbean. SECAS was started in 2011 by the states of the SEAFWA and the federal agencies of the SENRLG. SECAS emerged as a response to the unprecedented challenges facing our natural and cultural resources, like urban growth and climate change. These challenges are too big for any one organization to overcome alone, but they offer a clear opportunity to rally around a shared plan. SECAS views these challenges as an opportunity to coordinate conservation action and investment around a shared strategy. Through SECAS, conservation partners from every sector are making a collective impact to sustain our natural and cultural resources into a changing future.

SECAS brings together state and federal agencies, NGOs, private businesses, tribes, partnerships, and universities around a shared vision of the future. SECAS is working to design and achieve a connected network of lands and waters to benefit ecosystems, species, and people. SECAS tracks regional metrics of ecosystem health, function, and connectivity to report annually on progress toward achieving the SECAS Goal of a 10% improvement in ecosystem health, function, and connectivity by 2060. SECAS develops the Southeast Conservation Blueprint, a living, spatial plan that identifies the most important areas for conservation and restoration across the region. It stitches together smaller sub-regional plans into one unifying map—a spatial action plan for achieving the SECAS vision and goal. More than 180 people from over 70 organizations have used or are using the Blueprint in their work. Visit the SECAS in Action story map (www.secassoutheast.org) to explore in-depth examples of how the Blueprint is making a difference on the ground.

Nature's Network Overview

Nature's Network is a collaborative effort facilitated by the regional FWS SA program that brings together partners to identify the best opportunities for conserving and connecting intact habitats and ecosystems for supporting imperiled species to help ensure the future of fish and wildlife across the Northeast region. Nature's Network incorporates habitat needs for hundreds of species of fish, wildlife, and plants, identified as SGCN in SWAPs.

In response to these threats, the NALCC and NEAFWA coordinated a team of partners from 13 states, FWS, NGOs, and universities to develop a regional conservation design that provides a foundation for unified conservation action from Maine to Virginia. "Nature's Network" identifies a network of places that define the highest conservation priorities in the region to sustain natural resources and benefits for future generations. Nature's Network: 1. reflects scientific consensus from experts across the 13-state conservation community; 2. represents a shared vision for natural resources in the Northeast, and 3. offers a practical set of tools that help people working at different scales to contribute to regional conservation goals while also meeting the goals of their individual organizations.

Nature's Network offers a suite of decision-support tools representing five conservation approaches. Used together, or individually, these tools offer voluntary guidance to conserve the highest priority habitats, make more informed decisions, maximize resources, and support local priorities all while identifying opportunities to work together towards shared conservation goals at scales that matter for wildlife and people.

Nature's Network Conservation Design depicts an interconnected network of lands and waters that, if protected, will support a diversity of fish, wildlife, and natural resources that the people of the Northeast and Mid-Atlantic region depend upon. Three Nature's Network products that can be used to connect core areas are the terrestrial core-connector network, aquatic core areas, and core habitat for imperiled species.

MLI Overview

The Midwest Landscape Initiative was started in 2018 by state directors of MAFWA and leadership of FWS (Regions 3, 4, and 6) and is a regional conservation initiative that spans the Midwest. This effort is guided by the federal and state fish and wildlife and natural resource agencies across the Midwest who have unique legal and trust responsibilities for fish and wildlife management and serve important roles in conserving the natural landscape and the incredible biodiversity of species it supports. MLI uses a collaborative and voluntary approach to

developing and pursuing a shared vision and strategies for conservation issues at a landscape scale and is based on the best available science.

The MLI has an organized structure with co-identified priorities and strategies to help guide voluntary actions or plans by collaborators and partners. It places special emphasis on: 1) prioritizing conservation of at-risk species and SGCN across the region; 2) developing or adapting habitat inventory and assessment tools to meet conservation needs in the Midwest; 3) providing wind energy development support to best avoid or mitigate negative impacts to wildlife; and 4) providing a sustainable governance system and unifying conservation vision across the region that is adaptable to changes in the natural and social environment. MLI leadership will continue to evaluate these areas to determine if this list needs to be expanded and/or changed over time.

The MLI recognizes the need for a landscape-scale approach to conservation in the region because most fish and wildlife species occur and complete their life requirements in ecological systems that cross political boundaries, agency jurisdictions, and land ownerships. The MLI provides a forum that did not previously exist to facilitate greater engagement across agencies and organizations in conservation discussions, processes, plans and actions.

The MLI is in the process of developing a regional landscape conservation strategy that will address shared priorities and provide a coordinated framework for voluntary and collaborative conservation action, broad engagement, effective communication, transparency, and accountability across multiple agencies and organizations.

WNTI Overview

The Western Native Trout Initiative is a public-private NFHP that works collaboratively across 12 western states to conserve (protect, restore, and recover) 21 native trout and char species. Formed in 2006, WNTI provides a new perspective and impetus to improve the return on investment of the time, money and workforce dedicated to native trout conservation. WNTI is a collaborative, multi-state approach that requires the involvement of a wide range of partners – from public agencies to private individuals to conservation-minded organizations and corporations. This partnership represents the first time relevant agencies, organizations, and private interests have come together to express common concern over the status of western native trout. WNTI makes a unified commitment to improving the effectiveness of management actions and increasing public awareness of and support for the conservation needs of these imperiled species. WNTI provides the opportunity to gain significant new resources to address a common theme – revitalizing native trout resources across the western U.S.

- WNTI was formally established as an initiative under WAFWA in 2006
- WNTI became one of the first fish habitat partnerships under the NFHP in 2007

Chapter 3: State Wildlife Action Plans as a Framework for Regional Coordination and Collaboration

The AFWA resolution *Fish and Wildlife Conservation at Landscape Scales* (#2018-06-07; hereafter Resolution) recognizes the importance of collaborations across appropriate geographical scales and jurisdictions to assure that fish and wildlife agencies successfully accomplish their statutory responsibilities to conserve fish, wildlife and their habitats. In service of this goal, the Resolution recognizes the need to develop mutually shared priorities among SFWAs for population status assessments, identification and prioritization of key threats and habitats, and the coordinated implementation of strategies that conserve all fish and wildlife. These parties recognize the essential importance of working with broader partnerships, including, but not limited to, other federal and state agencies, NGOs, academia, private landowners and private industry.

SWAPs, due to their comprehensive, local and holistic nature, have great potential to serve as a basis for regional and landscape level fish and wildlife coordination. Considerations in using SWAPs for coordinating across landscapes include whether or not multi-jurisdictional coordination of SWAPs can improve the efficiency and effectiveness of at-risk species conservation, what additional resources and information might expedite the articulation of regional and national priorities for landscape partnerships, and whether or not the SWAP framework can provide an architecture and/or a delivery mechanism for coordinated conservation actions beyond the traditional scope of at-risk species. We recommend that SWAPs and their elements be reviewed as foundational components for regional and landscape scale conservation and, if needed, amended or revised to assure that the core SWAP elements, and how they are developed and/or characterized, serve as a possible baseline for the development of shared priorities and coordinated conservation actions across political boundaries and broad partnerships.

Charge to this group

- Review select landscape conservation initiatives to identify successful features that, if adopted by multiple states, would improve the ability of SWAPs to address regional or national landscape conservation science and conservation actions in a manner consistent with the AFWA Resolution.

Process used by this group

To develop these recommendations, this group relied on robust discussion among the members as well as input from others, including SWAP managers and staff across the country.

Additionally, we compiled information about prior and existing conservation initiatives (Table 1), the value of regionally integrated SWAPs, and additional features and tools that would be needed to support regionally integrated SWAPs in landscape planning efforts. This information is available to support future efforts should the resulting recommendations be pursued.

Results

A review of the LCC Science Catalog[1] reveals that a number of the LCC partnerships had implemented projects associated with SWAPs (see Appendix A); however, this work was just a starting point, and the wealth of information contained therein has not been fully utilized.

We found the Northeast process to be a particularly useful example of SWAPs driving landscape-level conservation actions. The Northeast states each have individual SWAPs, but leading to the 2015 revisions, states worked collaboratively to enhance features that would enable cross-boundary roll-up of SGCN, associated habitats, threats facing the SGCN and habitats, and conservation action categories, although specific actions were distinct among states. Individual states developed their own SGCN selection criteria, but a SWAP lexicon included minimal base criteria that was mutually agreed upon among the states. Furthermore, regional information serves as context for the state-based plans to demonstrate the range-wide needs. The development of a Northeast SWAP lexicon that allows for state autonomy at the fine-scale (e.g., specific action), but uniform categorical components at a broader-level (e.g. action category) enabled a shared database that enhances collaboration opportunities among Northeast states, FWS, USGS, researchers, and NGOs.

Characteristics of initiatives that have increased conservation success:

- ✓ High-level leadership support among partners
- ✓ Broad coalition of partners targeting a shared goal
- ✓ Dedication and sustained collaboration through regular meetings
- ✓ Financial commitment in some cases
- ✓ Dedicated contractor to manage collaboration

[1] The LCC Science Catalog is a comprehensive collection of all science and research projects conducted through the LCCs. In this case, projects around SWAPs included: providing science support around climate change in SWAPs, developing landscape-scale conservation strategies based on priorities articulated in SWAPs, and providing geospatial data products to enhance SWAP implementations. These projects yielded findings in terms of the value and challenges of working across jurisdictions.

- ✓ SWAP used as a foundation or priorities included
- ✓ Common lexicon, threat categories, shared databases and/or performance metrics
- ✓ Spatial plans that build up from smaller sub-regional plans into one unifying map
- ✓ Support from regional associations of fish and wildlife agencies

Advantages of SWAP Integration

SWAPs can provide comprehensive information on the distribution, diversity, health and abundance of wildlife species and the condition of key habitats. Additionally, they can highlight problems adversely affecting these variables, and recommend necessary research and conservation actions to mitigate and/or eliminate these threats. SWAPs are developed and described by the SFWA with input from partners and the public. Although SWAPs were originally intended to focus on single states, some species, associated habitats and threats are, by nature, multi-jurisdictional. Working at larger ecological scales could result in substantially greater effectiveness and efficiencies.

Regionally integrated SWAPs have the potential to:

- Improve information and data sharing
- Promote range-wide conservation of at-risk species
- Assist with development of regional conservation opportunity areas
- Improve coordination on key regional threats, research and conservation actions
- Provide fiscal advantages for addressing shared priorities

Barriers to SWAP Integration

Certain efforts to establish regional priorities based on SWAPs have been noteworthy, particularly in the Northeast and Southeast, with an emerging effort beginning in the Midwest. Work is needed to overcome barriers to integrating SWAPS, including inconsistent terminologies, habitat classifications, data standards and processes; impediments to data sharing; varying tools and initiatives; organizational differences, from regional AFWAs to individual states; lack of capacity; lack of leadership support; lack of prioritization and/or inconsistent process for prioritization.

The following recommendations identify additional resources and information that will expedite the articulation of regional and national priorities for landscape partnerships and examine

whether the SWAP framework could provide an architecture and/or a delivery mechanism for coordinated conservation actions beyond the traditional scope of at-risk species.

Recommendations

In recognition of the ever-changing nature of wildlife and habitat conservation, we recommend that AFWA convene a diverse work group to assess and develop recommendations on how SWAPs can improve range-wide conservation of SGCN) and contribute to regional and/or national landscape conservation priorities. These recommendations would help ensure the next generation of SWAPs are even more effective, accessible, and relevant to agencies, partners, stakeholders and others involved in conservation of fish and wildlife. Specifically, we recommend that AFWA:

i. Review the eight required elements for SWAPs and Best Practices for State Wildlife Action Plans: Voluntary Guidance to States for Revision and Implementation (November 2012) and make recommendations that would improve their ability to take on regional and landscape conservation challenges.

ii. Identify and promote the use of methods or best practices to overcome barriers to multi-jurisdictional, multi-sectoral landscape collaboration, including inconsistent terminologies, data standards, geospatial products and tools, and organizational barriers.

iii. Recommend steps to assure that SWAPs can better meet the needs of partners and are accessible to landscape conservation practitioners so that strategies to conserve SGCN are relevant and integrated into broader conservation efforts.

iv. Identify tools or models that foster development of regionally integrated SWAPs, including approaches such as identification of regional priorities, increased consistency, geospatial tools, and grants programs, that might support implementation of integrated plans.

i.

Appendix A: Detailed responses to regional partnership questions

The following questions were asked of key staff and leadership of the four regional partnerships highlighted in the second chapter of this report (SECAS, Nature's Network, MLI, and WNTI). Detailed responses from partnership staff and leadership follow each question.

1) Describe the process by which your partnership was formed, including dates and names/affiliations of key players. Why was it created?

SECAS

The concept for SECAS was presented to the SEAFWA Spring Director's meeting in 2011 by Tennessee Wildlife Resources Agency Director Ed Carter. Director Carter asked the Directors of SEAFWA to consider potential roles that SEAFWA and its member agencies might adopt to sustain fish and wildlife resources. With leadership from the states, SEAFWA would help catalyze an initiative that focuses on the strategies needed to enable fish and wildlife populations to be sustained at desired levels, in the face of major stressors such as continued human population growth, growing energy development (to include renewable energy), and climate change.

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. The overarching goal of SECAS was to develop and pursue a common vision of habitat conservation that can sustain fish, wildlife, and other natural and cultural resources across ecosystems in a way that meets expectations of the public, the Administration, and the Congress. Ultimately each participating organization would use its respective authorities and resources in pursuit of that vision. SECAS was also established to ensure that individual sub-regional conservation planning efforts, initially developed through the LCCs, contributed to a coordinated regional strategy to define the landscape of the future to sustain fish and wildlife in the Southeast, specifically described as "an ability to add things up ecologically on the landscape." A briefing document outlining actions taken and next step recommendations for SECAS was presented and approved by SEAFWA Directors at their fall business meeting in 2011.

In 2012, Tennessee Director Ed Carter, along with Cindy Dohner, Southeast Regional FWS Director as federal liaison, requested the 13 federal agencies in the Southeast with natural resource management authorities to participate in the initiative. The federal agencies of the SENRLG formally joined the SECAS initiative in 2012.

MLI

The MLI is an outgrowth of the AFWA Wildlife Resources Policy Committee's Work Group on Landscape Conservation, an effort that started in 2017 and ran through 2018. Early in that process, the Work Group broke into smaller groups, focusing on various regions of the country. The Work Group decided to use the regional AFWA boundaries as a way to ensure every state was part of the discussion and noted that this approach had the added benefit of providing those states at the edge of regions to engage in either or both discussions as they may have applied. At this early time, the regional AFWAs were not sponsoring or really even part of the official Work Group.

In the Midwest region, the members decided to approach MAFWA and FWS leadership to determine whether there was support to initiate a standing Midwest landscape group. At the 2018 MAFWA Annual Directors' Meeting, the future of landscape conservation was discussed through a panel-style presentation. The panel included SFWA directors, the Acting Director of FWS, the Assistant Director for FWS SA, and the chair of the Midwest subgroup of the AFWA Working Group. The President of MAFWA at the time had indicated he was interested in appointing a special task force under his authority to explore the idea of creating the MLI; however, after the panel presentation, the MAFWA Board voted to unanimously support the development of MLI (then called something else) and provided it with (1) initial authority for a governance structure, and (2) approval of preliminary priorities. It also invited FWS participation as peers to participate at all levels. In June 2018, the MLI was created.

In 2019, the MAFWA Board unanimously resolved to support the continuance of the MLI indefinitely and tasked it to develop a Comprehensive Action Plan that would provide a framework for coordinated strategies to address the co-identified priorities of the MLI partners.

Jim Douglas, Bill Moritz, Terry Steinwand, and Craig Czarnecki were instrumental in establishing the MLI, through their work with the AFWA Working Group, roles with MAFWA and AFWA and role for the FWS. They were all senior leaders in the region.

The MLI was developed to address shared conservation priorities across the Midwest region. It was an outgrowth of prior successful species-specific initiative, but the framers intended for it to move beyond managing for single-species or groups of species to manage regional issues more holistically, avoid species declines and potential listing, and address ecosystem service benefits.

Nature's Network

The identification of regional focus areas for conserving fish and wildlife and their habitats has been a goal for NEAFWA since they came together to share ideas in Albany, New York at the SWAPs Meeting ("Albany I") in 2006. That meeting was a catalyst for establishing the RCN program including RCN Topic 4: "Identification of Regional Focal Areas and Corridors for the Conservation of SGCN in the Northeast."

Under the leadership of Ken Elowe (FWS SA), the NALCC facilitated the Northeast Regional Conservation Framework Workshop ("Albany II") in 2011. State agencies and other attendees reiterated the importance of regional prioritization by identifying the need to "expedite delivery of the right actions in the right places: a set of immediate needs identified related to finishing and validating mapping of species and habitats and identifying conservation focus areas based on a variety of approaches." The NALCC used the priorities and conservation framework coming out of that workshop and their resulting strategic plan to guide investments in capacity and projects including conservation design.

At the April 2012 NALCC Steering Committee meeting, NEAFWA Chair Patricia Riexinger (NY), NEFWDTC Chair Karen Bennett (DE), and Steve Fuller (NALCC) proposed a synthesis of state and NALCC products to form a Northeast LCD. The approach was approved by NALCC and a suite of related projects were supported in 2013, including compilation of landscape data to form a conservation atlas and development of RSGCN.

In April 2014, NALCC Steering Committee directed NALCC staff to assist in the development of RCOAs in collaboration and partnership with the NEFWDTC. NEFWDTC and NALCC drafted the following RCOA objectives:

1) Map core landscapes to protect Northeast plant and animal diversity while ensuring landscape integrity and climate resilience;

2) Map imperiled habitats to protect RSGCN (a prioritized list of fish and wildlife species found in Northeast SWAPs, now a major component of at-risk species) and their common associates in the face of broad threats such as development and climate change;

3) Prioritize watersheds to target for restoration of key ecosystems, improvement and management of early successional habitats and/or agricultural lands, implementation of upland practices to improve water quality, and implementation of in-stream practices to improve connectivity;

4) Identify zones to connect core landscapes, important habitats, and restoration opportunities and plan for salt marsh migration.

At the September 2014 NEFWDTC meeting, committee members lead by Jenny Dickson (Chair, CT) and NALCC Coordinator Andrew Milliken agreed on a general approach and recommended individuals from Northeast states to participate on a technical advisory team in a process coordinated by Steve Fuller (NALCC) and Dan Rosenblatt (NEFWDTC co-chair, NY) to develop the methods for mapping RCOAs. NEAFWA Directors approved the proposed governance structure.

In the fall of 2015, NALCC and NEFWDTC reached concurrence on the RCOA methodology proposed by the technical advisory team and agreed to develop a first iteration of the analysis with additional engagement from a broader set of partners, including other NEAFWA committees, state and federal agencies, and private partners. The NALCC Steering Committee approved funding to complete the analysis.

In the fall of 2016, NALCC completed the RCOA analysis. NEFWDTC reviewed the products at their annual meeting and adopted them as a regional LCD. The final products were subsequently approved by NALCC in conjunction with funding for a branding and marketing consultation, culminating in the Nature's Network name. Shortly thereafter, in 2017, the management, coordination, and administration of the LCCs ended.

Currently, FWS SA is engaged in updating key components of the Nature's Network LCD, maintaining the conservation atlas, and refining the prioritization tools. While Nature's Network explicitly addressed RSGCN, we are developing additional analyses with increased focus on at-risk species. In our Region, at-risk species include species from FWS's National Listing Workplan and RSGCN. The National Listing Workplan represents a prioritized schedule for completing status reviews to determine if specific species warrant listing as either threatened or endangered under the Endangered Species Act.

WNTI

The WNTI is a public-private NFHP that works collaboratively across 12 western states to conserve (protect, restore, and recover) 21 native trout and char species. Formed in 2006, WNTI provides a new perspective and impetus to improve the return on investment of the time, money and workforce dedicated to native trout conservation. WNTI is a collaborative, multi-state approach that requires the involvement of a wide range of partners – from public agencies to private individuals to conservation-minded NGOs and corporations. This partnership represents the first time relevant agencies, organizations, and private interests have come together to express common concern over the status of western native trout. WNTI makes a unified

commitment to improving the effectiveness of management actions and increasing public awareness of and support for the conservation needs of these imperiled species. WNTI provides the opportunity to gain significant new resources to address a common theme – revitalizing native trout resources across the western U.S.

- WNTI was formally established as an initiative under WAFWA in 2006
- WNTI became one of the first fish habitat partnerships under the NFHP program in 2007

2) Describe the governance structure of your partnership, including the role(s) of the SFWAs, FWS (including SA and other programs), other federal and state agencies, tribal entities, and NGOs in the governance and decision-making processes.

SECAS

Beginning in 2011, the governance and decision-making processes of SECAS were informal and based on an *ad hoc* guiding coalition of SFWAs of SEAFWA, federal agencies of SENRLG, LCC steering committees and partnership networks, and designated POCs from each member agency of SECAS. There has been no formal charter or officially adopted governance process established for the initiative. Initially, the LCC steering committees, several of them chaired by SFWA personnel, provided the grassroots coordination to begin to define actions that would inform a larger, regional strategy. The regional FWS SA program supported a position for SECAS Coordinator, which provided overall coordination and facilitation for bringing together the regional LCCs and other partnerships into a more coordinated and strategic effort.

In the initial SECAS governance model, decision making came through the various LCC networks, to include state and federal agencies, NGOs, and others through the LCC steering committees that also provided the technical and coordinating capacity for SECAS. Additional input came through the broader partnership network, including USGS Climate Adaptation Science Centers, JVs, and other partnerships which included tribal representation in certain cases.

Since 2017, dedicated support for LCCs nationwide was substantially reduced, resulting in most LCCs disassembling or transitioning to new organizational structures. Due to these changes in the Southeast, some of the decision-making and directional guidance for SECAS that arose through the LCC partnerships and their extended networks disappeared. In response, the FWS SA program in the Southeast focused its full capacity on SECAS as an overarching framework for planning and promoting landscape-scale collaborative conservation, and continued to

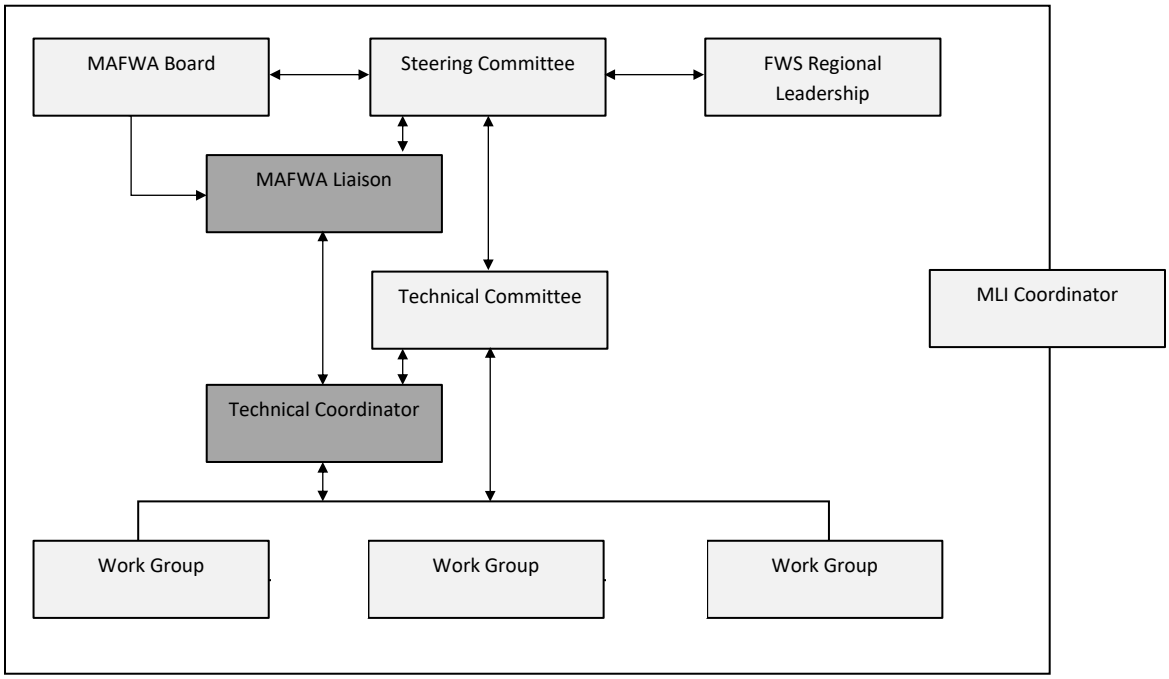
integrate with states, other FWS programs, and other partners in supporting the shared priorities of SECAS. To fill the decision-making gap, SECAS emphasized the collaboration role of the designated state and federal agency POCs, working with their appointing agencies and FWS SA to continue the coordination and technical support of the partnership.

In 2019, SEAFWA Directors established an *ad hoc* committee of 5 SFWA Directors and 1 federal SENRLG representative to serve as a steering committee with the charge to "provide oversight and strategic direction to SECAS." Also, in 2019, the SECAS steering committee authorized the formal addition of three POCs representing specific conservation NGOs. The steering committee is continuing to function in an interim capacity pending completion and consideration of recommendations from a formal examination of governance and strategies to sustain and enhance the value of SECAS to its member organizations. This project is expected to be completed in fall 2020.

MLI

The MLI is not a separate legal entity nor does it create any binding legal requirements on the part of the members. It is a forum to identify shared priorities and develop plans or strategies to address them. It relies on voluntary participation and actions of MAFWA or individual states or agencies.

The following diagram illustrates the structure:



The MLI is comprised of a steering committee, which identifies priorities for the MLI and provides policy direction and oversight; it is comprised of SFWA Directors, regional FWS leadership, and USGS CRU leadership, or their delegates.

The technical committee provides recommendations and consultation to the steering committee as well as consultation and direction to the working groups; it is comprised of various levels of staff from SFWAs, FWS, USGS and MAFWA.

The working groups, which provide initial recommendations regarding strategies and actions to address the priorities and goals established by the steering committee; it is comprised of staff from SFWAs, FWS, USGS, MAFWA and any other university or organization which may have interested or expertise needed to address the particular priority.

The MLI also utilizes a full-time coordinator for the overall effort; an executive-level policy liaison to assist with communications and direction between the steering committee and the technical committee; and a technical coordinator to support the activities of the working groups and the technical committee.

Nature's Network

NALCC governance was intended to facilitate coordination and feedback between landscape-level science and conservation delivery, collaboration, and communication among partner organizations (including existing partnerships such as JVs and NFHPs) and coordination with entities adjacent to the LCC (including adjacent LCCs and other partnerships sharing common species and conservation issues). The NALCC was a conservation science-management partnership, consisting of federal agencies, states, tribes, universities and NGOs, focused on collaboratively developing science-based recommendations and decision-support tools to implement on-the-ground conservation. The NALCC functioned through a Steering Committee and Task Groups, appointed by the Steering Committee, to take on specific tasks or address specific issues. The structure and function of the NALCC served as a starting point for operation of the partnership but was intended to change and evolve as the partnership developed. Lands included within the NALCC boundary included 12 States and the District of Columbia and they were key members of the Steering Committee structure. The Steering Committee scheduled at least two in person meetings per year. Additional meetings could be called by the Chair, and additional Steering Committee business could be conducted by e-mail, teleconference and web conference.

NALCC is no longer operational and the regional FWS SA program is currently working to redirect our landscape conservation capacity to align with changing FWS priorities and renew

our partnerships with States. Through 2016, LCCs had been responding to broad landscape objectives, such as climate resilience. In 2017, following on the success of collaborative pre-listing conservation efforts to address the decline of the New England cottontail, the North Atlantic – Appalachian Region began directing more attention to proactive conservation of rare species identified in the FWS National Listing Workplan to be reviewed for listing under the Endangered Species Act. Many of the species listed therein are also designated as RSGCN, and many RSGCN could decline to levels comparable to species on the National Listing Workplan—for this reason, there is considerable overlap in Nature's Network focus on RSGCN and habitat diversity and our new at-risk species direction.

We have affirmed through dialogues with NEAFWA that both the States and FWS have an interest in working together to conserve species before listing is necessary. We are working to more fully develop a partnership to narrow the list of shared priority species to a manageable level and identify mutually complementary roles in science and conservation. Our approach is to work closely with our SFWAs to prioritize the fish, wildlife and plants that we will work on together, and then assess their needs before co-producing actionable conservation strategies that will improve their conditions. FWS SA staff are actively engaged in a consensus building process with NEFWDTC and other FWS program staff to identify joint priority species, conservation actions, and respective roles for FWS programs.

Going forward, we continue to assess alternative partnership structures and opportunities for alignment. For example, there is a formalized governance structure establishing a New England cottontail Executive Committee, but a similar formalized structure has not been developed to guide and coordinate work for most at-risk species. Rather, coordination typically follows a collaborative approach involving peer-to-peer relationships among staff engaged with state representatives on the NEFWDTC. Notable exceptions include governance structures already in place, such as the coordination structure in place through the ACJV, which can serve priority bird species. Finally, some *ad-hoc* coordination between executive and technical staff has been established to deal with priority issues, such as addressing the illegal collection and sale of wild turtles.

WNTI

WNTI is a collaborative effort of 12 western states including Alaska, the NFHP Action Plan, FWS, USFS, Bureau of Land Management, and many tribal and public or private NGOs. We have partnered with over 350 organizations to implement 187 projects through 2019.

WNTI's organizational structure and operations was set up and is guided by a steering committee established through an official set of Bylaws and through a Memorandum of Agreement between

WAFWA-member states and appropriate federal agencies and conservation organizations. The WNTI Steering Committee is a self-directed group of WAFWA state, federal agency, tribal, Canadian government representatives and private partners interested in achieving the Initiative's mission of conserving, protecting and enhancing the status of western native trout. The Steering Committee operates under the auspices of the WAFWA IMFC under the guidance of the committee's director-chair. The Steering Committee serves as the guiding work group for the Initiative and has oversight responsibility for all WNTI activities. The activities of the Steering Committee directly support the WNTI Strategic Plan, which identifies the planning, implementation, and evaluation Goals and Objectives for WNTI. The steering committee provides guidance for WNTI operations to support specific goals, objectives and actions of the WNTI strategic plan.

WNTI as a partnership is "State driven" with both the Chair and Vice Chair representing SFWAs, and all 12 state agencies that are part of WNTI represented on the steering committee. The three main federal agencies who work with western native trout also have seats on the steering committee, and we have been fortunate to be able to make almost all of our decisions through consensus.

WNTI has very active SFWA participation and the Bylaws state that steering committee members "should represent the highest level of their organization as feasible. This representation should be at the administrative level, so that Steering Committee members have some authority to commit WNTI financial resources, and recommend the use of respective Agency staff resources, or other types of organizational support."

Current Steering Committee members/staff are:

Chair: Julie Meka Carter, *Statewide Native Aquatics Program Manager,* Arizona Game and Fish Department

Vice Chair: Jon Sjöberg, *Fisheries Division Chief,* Nevada Department of Wildlife

Drew Cushing, *Aquatics Section* Chief, Utah Division of Wildlife Resources

Gillian O'Doherty, Alaska Department of Fish and Game

Kirk Patten, *Assistant Chief of Fisheries,* New Mexico Department of Fish and Game

Martin Koenig, *Sportfishing Program Coordinator,* Idaho Department of Fish and Game

Craig Burley, *Fish Management Division Manager***,** Washington Department of Fish and Wildlife

Bruce McIntosh, *Deputy Fish Division Administrator – Inland Fisheries,* Oregon Department of Fish and Wildlife

Paul Dey, *Program Manager Aquatic Habitat Section,* Wyoming Game and Fish Department

Roger Bloom, *Inland Fisheries Program Manager,* California Department of Fish and Wildlife

Matt Nicholl, *Aquatic Section Manager,* Colorado Parks and Wildlife

Pat Saffel, *Fisheries Manager Region 2,* Montana Fish Wildlife and Parks

Melissa Dickard, *Aquatic Ecologist,* Bureau of Land Management National Operations Center

Yvette Paroz, *Regional Fisheries Program Leader*, USFS

Robert Clarke, *Assistant Fisheries Program Manager*, FWS

Warren Colyer, *Western Water and Habitat Program Director*, Trout Unlimited

Therese Thompson, WNTI Coordinator

Christopher Cantrell, WAFWA representative on NFHP Board

Tribal position is vacant

Canadian provincial position is vacant

Specific to the question about the FWS: FWS has a seat on the WNTI steering committee and administers our NFHP operations grant and project grants. We have excellent collaboration with the National Fish Passage Program in FWS Region 6 and have co-funded many projects. The Southern Rockies LCC funded a Conservation Assessment and mapping products for the Lower Colorado in 2013 and the Upper Rio Grande basin in 2017-2018.

3) Describe the relationship (if any) between your partnership and the national and regional AFWAs (AFWA, MAFWA, NEAFWA, SEAFWA, WAFWA).

SECAS

The SECAS partnership is a standing, and officially recognized initiative of SEAFWA. SECAS was formally adopted by action of the SEAFWA SFWA Directors in 2011. A SEAFWA subcommittee of 5 SFWA Directors and 1 federal agency principal comprises the current interim steering committee. The partnership's technical coordination and science prioritization is informed by SEAFWA agency POCs, and through participation in SEAFWA technical

committees. The SECAS partnership is a standing agenda item for monthly calls and semi-annual meetings of the SEAFWA Wildlife Diversity Committee. SECAS participates in the SEAFWA annual conference by convening symposia and technical sessions, and through participation and support of other technical sessions and committee functions. The partnership reports its progress and priorities annually at the SEAFWA Spring Directors' meeting and the fall Director's Business Meeting at the SEAFWA annual conference.

MLI

SFWAs in the Midwest operate in the partnership under the authority, funding, and governance umbrella set up by the MAFWA Board.

The MLI is not a separate legal entity; however, MLI is a function of MAFWA in that it uses its association of members to connect to the various member states of MAFWA. The MLI work groups utilize MAFWA committees, such as the MAFWA SWAP Committee, the Threatened and Endangered Species Committee, and the Wildlife Health Committee, to seek input and review of MLI strategies and actions; in some instances those committees serve as the primary building block for a working group, inviting broader participation where needed to capture FWS or USGS priorities, too.

Nature's Network

The NALCC Steering Committee was chaired by Ken Elowe (retired FWS SA), former chair of the NEAFWA Directors. Before it was dissolved, the partnership reported progress and priorities annually at the Spring Directors' meeting during the NEAFWA annual conference and at the fall Director's Business Meeting. NALCC meetings were held in tandem with the biannual NEAFWA Director's meetings to facilitate their full engagement. Each of the SFWAs within the NALCC geography were represented on the Committee by the SFWA Director or their designee. A core function of the NALCC steering committee meetings was the review and approval of landscape science priorities and projects. With regard to Nature's Network, the entire series of funded projects contributing to the final LCD were reviewed and approved by participating NEAFWA member states.

As the former NALCC Chair, Ken Elowe (FWS SA) and several NEAFWA SFWA Directors served on the AFWA Landscape Conservation Working Group culminating in AFWA Resolution #2018-06-07. However, since the dissolution of the NALCC, the relationship between Nature's Network and NEAFWA needs to be assessed. Preceding the dissolution, in fall 2017, NALCC convened a steering committee meeting in conjunction with NEAFWA directors and identified broad areas of joint priority including salt marshes, aquatic connectivity,

at-risk species, large landscape conservation initiatives, and young forest habitat. Each of these joint priorities are well-represented in Nature's Network and could be well served through stepping down the relevant LCD components to support measurable implementation objectives.

In summer of 2018, FWS regional leadership met with NEAFWA SFWA Directors and discussed landscape conservation governance, emphasizing at-risk species, including increased coordination through NEAFWA subcommittees to identify priority at-risk species. In the spring of 2019, FWS leadership met with SFWA Directors at NEAFWA, and affirmed a commitment to coordinate through committees to advance at-risk species and identify joint priority species. In September 2019, regional FWS SA staff met with NEFWDTC and agreed that the underlying purpose of both the States' RSGCN and the FWS at-risk species efforts was to prioritize species for conservation before listing is necessary. Together FWS SA staff and the committee reviewed species listed as RSGCN in the FWS Listing Workplan and identified draft joint priority species. The committee requested FWS conservation support including application of Nature's Network to plan at-risk species conservation, assistance with surveys, research, and conservation implementation. FWS SA is currently engaging internal program staff to review and refine the joint priority species proposed by NEFWDTC and associated areas of collaboration.

WNTI

WNTI is a WAFWA initiative. The WNTI steering committee operates through, and as a function of, the IMFC of WAFWA, under the guidance of the committee's director-chair. WNTI's Coordinator is hired by the WNTI steering committee and is a contractor with WAFWA.

3a) What is the specific role, if any, of the regional AFWA in the operation of the partnership?

SECAS

SEAFWA has a very specific and engaging role in the operation of SECAS. SEAFWA SFWA Directors comprise the interim SECAS steering committee and provide oversight and strategic direction to the initiative. As an example of their role, in 2017 SEAFWA directors charged SECAS with establishing overarching goals and objectives for the initiative, which was accomplished and reported back to SEAFWA directors for approval in 2018. Each SFWA Director also designates a specific POC to participate in the operation and decision making of the partnership. The SEAFWA technical committees, in particular the Wildlife Diversity

Committee, help to inform the science priorities for and use and refinement of the tools and products of the partnership. SEAFWA SFWA Directors receive regular updates on the progress, accomplishments, and direction of SECAS at their regular business meetings.

MLI

For the Mid-America Monarch Conservation Strategy and for MLI, specific authorities, governance structures, and funding were established under the umbrella authority of the MAFWA Board. Specific governance consists of policy and technical level committees and technical work groups composed of state and federal fish and wildlife agency staff, with advisory roles for other agencies and NGOs.

Nature's Network

NALCC operated in close synchrony with NEAFWA meetings and organizational structures. NALCC and the RCN Program coordinated project proposal, review, and selection to ensure maximum leveraging and project coordination. Initially, the governance and decision-making for Nature's Network was informal and based on the common interests of NEAFWA member states and NALCC steering committee members engaged in reviewing and approving a constellation of inter-related LCD projects. Later, NEAFWA and the NALCC steering committee approved a governance structure for RCOAs (later renamed Nature's Network). The structure included two coordinators, one funded by NALCC, and another served by a SFWA designee (Dan Rosenblatt, NY). The opportunity to participate in the governance process was extended to all NALCC member organizations. Each state designated representatives to serve on the team; other represented partners included USGS, The Nature Conservancy, UMASS, Northeast Climate Adaptation Science Center, and Wildlife Conservation Society. FWS program staff were engaged within their areas of expertise. The committee met on a regular schedule and voted to approve the project goals/objectives and key planning decisions. Progress and key decision points were presented to both the NALCC Steering Committee and NEAFWA committees at regular intervals, including final review.

WNTI

- WAFWA administers all of our grants, contracts, pays our invoices, and assists with press releases.
- WAFWA's Foundation for Western Fish and Wildlife is WNTI's 501(c)3 fiscal sponsor and accepts tax-exempt donations on our behalf from foundations, corporations, and the public.

3b) Likewise, what is the specific role of the partnership in the activities of the regional AFWA? Is it totally independent, does it ebb and flow, or is it perhaps duplicative of committees or other activities of the regional AFWA?

SECAS

SECAS is very active within the operations of the SEAFWA specifically through participation in the SEAFWA Committee structure, primarily through the SEAFWA Wildlife Diversity Committee. As a recurring item of SEAFWA business, SECAS delivers its products and reports to the SEAFWA SFWA Directors at their semi-annual business meetings. SECAS is also very active in participation and support of the SEAFWA annual conference.

MLI

The MLI supplements and provides regional coordination to selected priority activities of MAFWA that are of landscape scale and/or very significant. MAFWA does not, in all instances, have capacity to address some issues nor might it have FWS engagement on an issue. The MLI provides a place where MAFWA and FWS leadership can address both long- and short-term priority issues utilizing existing committees and workgroups across the organizations.

The MLI does not duplicate MAFWA committees, AFWA committees or other organizations but instead attempts to draw connections between them, supplement them and provide additional resources to them, when necessary and desired by the MLI leadership.

MAFWA has a standing technical working committee structure consisting of: Private Lands Working Group, Public Lands Working Group, Legal Committee, Association of Midwest Fish and Game Law Enforcement Officers, Wildlife and Fish Health Committee, Deer and Wild Turkey Group, Furbearer Group, Wildlife Action Plan Working Group, Climate Change Committee, Hunter and Angler Recruitment and Retention Committee, National Conservation Needs Committee, and Midwest Convention on International Trade in Endangered Species. Each of these committees has a Director liaison from the MAFWA Board; each meets and reports at least annually to the full MAFWA Board; and each can bring proposed landscape-scale priorities forward at any time. The standing MAFWA committees continue to provide an important connection to all participating States because all are represented on those committees.

The MLI provides a forum that did not previously exist for leadership and technical staff of MAFWA and FWS to identify and discuss priority issues of regional significance, to facilitate landscape discussions in existing MAFWA committees, or to charter new or *ad hoc* work groups

or subgroups around priority issues. The MLI has also provided for additional federal engagement in some of the traditional MAFWA committee discussions.

Nature's Network

FWS SA staff routinely hold symposia and participate in the NEAFWA Annual Conference, and also attend NEFWDTC annual meetings and engage in collaborative planning and dialogue there. FWS SA staff routinely provide updates at other NEAFWA committee meetings including administrators and the habitat technical committee. FWS SA staff attend monthly coordination calls with NEFWDTC and provide regular updates on Nature's Network and at-risk species. Since the dissolution of the NALCC and increased emphasis on at-risk species, some confusion about the relationship by RSGCN and the current FWS priorities has occurred. Formerly, NALCC had a clear niche in providing conservation design for RSGCN in the form of Nature's Network, and there has been concern that the shift toward at-risk species conservation may be duplicative of the state implementation role for species under state jurisdiction. However, concerns are being addressed via recent efforts to advance a dialogue about the conservation needs and collaborative conservation roles for joint priority at-risk species.

WNTI

WNTI holds an annual steering committee meeting in conjunction with WAFWA's summer conference each year, and in conjunction with the winter conference as needed. WNTI Steering Committee members are active participants in WAFWA Fish Chiefs meetings, and as members of WAFWA's IMFC. WNTI's Coordinator reports to the WAFWA SFWA Directors at the business meeting each summer.

WNTI also contributes articles to WAFWA's quarterly e-newsletter.

4) What factors do you think contributed to the success of the formation of your partnership?

SECAS

The success of the formation of SECAS stems directly from the leadership of Ed Carter (Director, Tennessee Wildlife Resources Agency) and Cindy Dohner (FWS regional director) for communicating the need, approach, and outcomes critical to organizing the SECAS initiative. That leadership has continued until the present, as Director Carter, FWS Regional Director

Dohner, and later, Leo Miranda, have continued to engage with SFWA Directors and federal agency principals to communicate and promote the potential of SECAS. Likewise, this leadership has been critical to ensuring that SECAS continues to provide value, is heading in the right direction, and is addressing the appropriate actions to optimize its value to partners, and to partner organizations.

Adaptability is another contributing attribute to the success of SECAS. When the structural organization of FWS SA changed and support for LCCs transitioned, the SA program was able to adapt and fully embrace the State-led SECAS initiative as an overarching framework for landscape-scale conservation planning and implementation in the Southeast. The guiding coalition partners of SEAFWA SFWA Directors and SENRLG federal principals supported this move. This operational flexibility and adaptability enabled SECAS to continue some of the critical work that was already in progress prior to the transition of the individual sub-regional LCCs.

A third contributing factor to the formation of SECAS has been the high level of commitment from its partners, specifically the SEAFWA SFWA Directors, to ensuring the initiative's continuing success. This commitment has been formally expressed over the years through voice votes, letters of support, and in conversational expression among SEAFWA Directors and SENRLG Principals active in the partnership. This commitment has also been demonstrated by FWS and the SA program contribution to support coordination, technical and scientific functions, and communications support for the SECAS initiative.

Ultimately, the most instrumental factor relative to the success of SECAS is the value of the initiative's programmatic work to its partners in facilitating conservation outcomes. SECAS provides a forum for collaborative conservation that is unique in the region. SECAS' development of a coordinated regional strategy is a significant and tangible conservation accomplishment for the Southeast. The tools of SECAS, including the SECAS Goal, the Goal Report, and most notably the Southeast Conservation Blueprint, have been used by more than 80 different partner organizations to inform conservation decisions by bringing in new resources and by using existing conservation resources more effectively, working at local, statewide, and regional scales. Over more than nine years, there is an extensive and diverse record of success for SECAS helping to inform conservation decision making, and this record exemplifies the broad value of the initiative to its partners.

MLI

The MLI is a relatively new initiative, having only been created less than two years ago (as of this submission). However, the following factors have so far contributed to the success and/or viability of MLI to this point:

- Strong leadership and support at the Director and upper management level from the MAFWA member states and regions of FWS overlapping the MAFWA geography. These agencies share primary authorities and public trust responsibilities for fish and wildlife management in the region and are strongly supportive of applying landscape approaches to jointly identified fish and wildlife conservation issues of regional priority and significance.

- The partnership provided leadership and benefited from a broad, multi-regional discussion and consideration of potential landscape approaches through AFWA's development of a white paper and resolution on landscape conservation. The background analysis and operating principles were key underpinnings to the development of the MLI and to adoption of a MAFWA resolution supporting the initiative consistent with the AFWA resolution.

- Dedicated staff was identified and resources to support the efforts. Grants from FWS and NFWF initially allowed the contracting of dedicated staff to these efforts and FWS appointed a MLI Coordinator as the landscape partnership came together. The States and FWS also dedicate a portion of existing staff time of their agencies to this effort. This creates space away from urgent daily tasks to focus on important long-term work that can help to avoid future crises such as declining fish and wildlife, the need for species listings, or other undesirable outcomes.

- The partnership works cooperatively and in a peer-to-peer manner. It was built on a foundation of trust and a mutually respectful working relationships that was built over years. Prior to these efforts there was a tendency to operate relatively independently in separate "silos," making it much more difficult at the conclusion of a process to attempt to reconcile differences and reach mutually satisfactory outcomes (e.g., that previous approach was likened to "throwing proposals back and forth over a fence to each other" instead of breaching the fence and working jointly as peers from the outset, to the extent possible within differing legal authorities).

- The partnership develops and focuses on shared goals and outcomes. Differences in authorities, responsibilities, and roles are acknowledged and respected.

- The partnership effectively leverages information, expertise, and conservation capacity to identify and help fill in gaps in existing efforts and to facilitate outcomes greater than the sum of the parts that could be accomplished independently.

- The partnership pursues effective communication with all interested parties. Dialog is encouraged when possible to supplement one-way communications.

- The partnership provides opportunities and forums that did not previously exist for discussing and addressing priority conservation issues at a regional scale. For example:

    - With northern long-eared bats, MAFWA convened a range-wide in-person conference and discussion involving more than 35 states and multiple federal agencies. That led to development of common messages and recommendations signed off by multiple AFWA regions and state forester associations.

    - With monarch butterfly, MAFWA convened multiple regional conferences and workshops involving portions of all AFWA regions and cross-regional coordination. Broad engagement and input from interested agencies and NGOs was provided by setting up a series of Technical Working Groups open to those interested in participating in development of potential management objectives and strategies by land sector and topic area. Once the strategy was developed interested collaborators were free to determine their own level and method of engagement in implementation.

    - With wind energy development impacts to wildlife, the MLI Work Group has utilized the services of a contractor to conduct an assessment of wind and wildlife issues across the region and provide a forum where government-to-government discussion can happen in a space heavily occupied by NGO interests.

    - With CWD, MLI convened a value stream mapping exercise to assess regional strategies, data needs, and potential management and communications options.

Nature's Network

The AFWA White Paper contains a "Best Practices for Landscape Conservation in the Northeast", based largely on the experiences of NEAFWA Directors and FWS SA leadership during the operation of the NALCC, RCN Program, JVs, and the New England Cottontail Initiative. As stated there, one of the foremost factors for the success of the NALCC and Nature's Network has been the longstanding collaboration among States and between States and FWS, exemplified in the RCN program, and carried forward by the NALCC. The tradition of

collaboration created a group of people, at staff and leadership levels within FWS SA and within the NALCC steering committee, who served to continue trusted relationships and carry forward institutional knowledge upon which the partnership was built. The long-standing collaboration had also built a body of technical work and a trajectory toward landscape conservation that provided a clear niche for the NALCC. The partnership was staffed by people with strong experience coordinating landscape conservation partnerships, including the ACJV, RCN Program, and New England Cottontail Initiative. FWS SA staff were complemented by the experience and management support of the Wildlife Management Institute. NALCC staff and researchers were well respected for their LCD capabilities, and the partnership was fortunate to engage a network of high caliber and highly collaborative landscape ecologists to create Nature's Network. The technical accomplishment of the team was critical to the trust of partners and sometimes lead to early adoption of the work by the community of practice, although at times it has been apparent that simpler analytical approaches could satisfy the needs of many practitioners. While the LCC Network was founded on boundaries that dissected states, NALCC decided early to extend all landscape analyses to the Northeast Region. In the course of creating Nature's Network, a commitment was made to support a process to identify priority species (RSGCN) that aligned with state needs—this and other acts of intentional alignment promoted a spirit of collaboration.

WNTI

WNTI is all about getting projects done that will help improve the abundance of western native trout across a variety of landscapes. Our goals and objectives include gathering project opportunities, funding, and partners together to make a measurable impact on native trout populations and habitats. WNTI projects are and will be funded by many different entities and partners. WNTI's formation and strength are due to a shared set of goals and a vision for the conservation of western native trout and western landscapes that is inspiring and appealing, as well as a regional approach that crosses jurisdictions in order to benefit these species throughout their ranges.

WNTI provides a forum for partners to coordinate and invest their collective assets and capacity toward completing the highest-priority, native trout conservation efforts across the West. Proposed and led by local communities and resource agencies, these projects are funded and supported through WNTI's grant programs and in-kind contributions by our partners. Covering over 1.75 million square miles of public and privately managed lands, WNTI and our partners combine science-based assessments with expert and local knowledge to establish joint priorities

for native trout conservation at a landscape scale. WNTI plays an important role in conserving water in the West for future generations. Since its inception in 2006, WNTI has directed over $5.5 million in federal fish habitat funds leveraged to $38 million public and private matching dollars for 187 priority native trout conservation projects. With the collaboration and coordination of WNTI partners, together we have removed 116 barriers to fish passage, reconnected or improved 1,398 miles of native trout habitat, and placed 38 protective fish barriers to conserve important native trout conservation populations**.** In order to ensure our collaborative investments are directed toward the highest priority projects, WNTI has funded over 744 watershed, fish population, and habitat surveys.

5) What recommendations would you give to other groups who are interested in starting a similar landscape-scale partnership?

SECAS

It is difficult to overstate the importance of having highly respected, sincere champions to help communicate the need and reasoning around establishing a landscape-scale partnership. This was the case with SECAS through Ed Carter and Cindy Dohner, who were able to communicate the "why" regarding establishing SECAS. It is also imperative to have dedicated coordination functionality, and specifically, dedicated science coordination and geospatial support for establishing a functional landscape conservation partnership. Additionally, a focus on building enduring relationships with end users of the partnership's products is fundamental to meeting partner's needs. It is also important to build in the capacity to be adaptive as the partnership evolves in maturity.

MLI

The MLI, still in its creation and early development stage, is still forming. We say that we are building it as we are flying it.

- Start small with a core group that has primary authority and accountability for the actions; quickly involve others who share similar goals or outcomes to develop specific objectives, strategies, and outcomes.

- Be inclusive of all States and potential partners in the refinement and implementation phases of the approach. Once agreement is reached on shared outcomes, then each organization can participate in pursuit of the shared goal and determine its own level of engagement.

- Be willing to work with all land managers from all relevant sectors, including those who may not have a conservation objective but may share "common ground" in terms of land management outcomes compatible with conservation.
    - One pertinent current example is "precision agriculture." This approach takes the vast amounts of fine-grained data available to agricultural growers on their field characteristics and inputs and outputs and allows them to adjust planting, chemical application, harvesting practices, etc. to maximize profits. While the primary goal of precision agriculture may be to maximize return on investment by reducing inputs, it also has the potential to identify portions of fields that could be put to beneficial conservation use such as pollinator habitat while maintaining economic gains. This is a "win-win" for the business and for conservation.
- Proceed with a bias for action. The initiative will not be perfect, the approach may not be completely formed, but do something and don't let perfect be the enemy of good. Be experimental and learn from successes and trials as the initiative forms.

Nature's Network

The "Best Practices for Landscape Conservation in the Northeast" in the AFWA White Paper are highly relevant and largely based on the NALCC experience. From a closer operational perspective, it is critical that partnership staff and leadership are able to build trust through sincere engagement in collaboration from the very beginning to execution of the partnership, from concept, to structure, to action. The NALCC was sometimes impaired by pre-conceived purposes and means to achieve them, leaving some partners collaboratively unsatisfied. It is critical to have well-respected staff committed to serving the partnership with a complementary combination of technical, communications, and coordination skills. Key technical capabilities include conservation planning, technical supervision, data management, and geospatial analysis. Landscape-scale work requires management of massive volumes of information. While inclusiveness is crucial to the process, it is difficult to serve everyone, therefore, it is essential to understand who the key partners and individuals are to include. Landscape science can be complicated, and adoption of innovations is challenging - plan for this, perhaps by simplifying and focusing on specific priorities as described above and by managing expectations.

WNTI

- Make sure you have a shared vision and goals that all partners agree upon.

- You need bylaws or a governing agreement that supports the partnership at the highest levels possible within each agency or organization. This provides critical support at the formation of the partnership, and sustainability as the partnership evolves.

- Relationship building and trust are key to keeping current partners active and in bringing new partners into the partnership.

- The steering committee or governing/managing board is also the key to success. You need buy in and determination to support the mission, and good relationships between steering committee members.

- You must have an effective business process that can competently manage funding grants and ensure project accountability and efficient disbursements to project managers. This builds credibility and confidence in the partnership from grantors and potential partners and project applicants.

6) How does your partnership identify scientific and landscape-scale conservation priorities? What process(es) do you use? How do you obtain agreement among the partners on these priorities? How do you communicate these priorities to others both inside and outside the partnership?

SECAS

The actions and priorities of the SECAS initiative are guided by a collective vision, a specific goal, and the Southeast Conservation Blueprint that together help support and inform conservation decisions across jurisdictions. These guiding statements were deliberated among the SECAS POCs and approved or officially adopted by the SEAFWA Directors and SENRLG Principals. The Southeast Blueprint defines priority areas on the landscape through integration of numerous inputs from existing sub-regional conservation plans. The integration of priority areas is coordinated among the SECAS POCs and the FWS SA coordination and technical support staff in an annual update to the Blueprint.

The POCs also recommend additional action for the annual SECAS work plan by voting on proposed activities within a set of "core functions" of the partnership, including

- annual update to the Blueprint,

- annual update to the SECAS Goal report,

- additional tool development for the partnership,
- one or more additional deliverables based on POC input

Specifically, for 2020, SECAS is also undertaking a comprehensive review of its governance structure and an examination of sustaining the partnership's value and identifying future needs. This effort is being overseen and guided by the SECAS Steering Committee as part of their role to provide oversight and strategic direction to the initiative.

The communications efforts of SECAS are supported by a dedicated communications specialist through FWS SA. The SECAS website (secassoutheast.org) is the primary outlet for providing access to archival information and offering a platform to promote emerging accomplishment and action, including a recurring blog, webinar series, and newsletter.

MLI

MLI has developed an initial set of landscape-scale priorities based on guidance from the MLI Steering Committee and MLI Technical Committee. These include: 1) priority at-risk species conservation, 2) habitat inventory and assessment, 3) wildlife impacts from wind energy development, and 4) MLI governance. MLI has also developed a priority setting framework for vetting potential new priorities and regularly evaluating existing priorities. The MLI will be testing this framework this summer in its evaluation of priorities now two years into the creation of the MLI and the establishment of its first set of priorities.

MAFWA typically used standing technical committees to coordinate and evaluate emerging conservation issues of regional significance and to bring those to the full Board as needed.

Under the MLI, proposals for new or modified MLI priorities may originate from any of the MLI Work Groups and Committees, MAFWA Committees, FWS, MAFWA Board, any state or federal agency, academic institutions, partner organization, or other entity sharing an interest in landscape conservation in the Midwest and those will be considered under the established priority setting framework.

Communication of priorities internally and externally is accomplished through inclusion on the MAFWA website and through presentations and direct communications to agencies and organizations. An ad hoc communications team has been established to enhance communications about these efforts. The MLI recognizes that it needs to engage with a broader partnership,

particularly at the work group level, and may potentially use priority-setting and evaluation as an opportunity to engage a broader audience with the MLI.

To that end, the MLI is exploring an idea to develop a Communication network, comprised of communication and education professionals from the various organizations around the region, to help develop more robust communication protocols and engagement strategies for the MLI. This partner engagement around priorities may be a good way to engage more partners and get quality review and comment on MLI priorities.

Nature's Network

NALCC formed a technical committee with technical representation by each member organization, FWS program staff, and other conservation partners to ensure a breadth of technical expertise. The technical committee convened on a recurring cycle to review and prioritize science needs through a ranking process. Prioritized needs were then submitted to the steering committee and finalized for inclusion in RFPs on an annual basis. Parallel processes were followed to identify and prioritize information management and science delivery needs. NALCC identified broad strategic directions through the Albany 2 meeting in 2011 and had begun discussions about a follow up meeting at the time it was dissolved. Direction from Albany 2 set the course for Nature's Network, but broad strategic objectives were developed through a consensus process with the NEFWDTC. NALCC staff worked in close partnership with NEFWDTC to develop the RSGCN approach. Many NALCC-funded projects were coordinated as future components of Nature's Network, and each had project specific steering committees and/or integrated consensus building. The Nature's Network technical advisory team refined conservation priorities in the course of consensus development of analytical approaches, and the final approach was vetted through NEAFWA and NALCC committees. In hindsight, the conservation priorities were indeed identified through sincere consensus building, but through many composite efforts and over many years the appearance of transparency suffered, partners fatigued, and inclusion diminished.

Going forward, identifying a subset of conservation priorities and focusing on stepping down measurable objectives with an inclusive group of partners would be beneficial. For at-risk species, the North Atlantic – Appalachian Region is engaged in a prioritization approach that involves extensive input from the NEFWDTC and FWS program staff. The process began with comparing the FWS's National Listing Workplan and list of RSGCN to identify species of mutual interest. Through a series of discussions, SFWAs identified species that are of highest concern and identified areas of desirable conservation collaboration. We are now engaging FWS staff internally to address the same questions--which species are of concern and areas of

conservation collaboration are of interest. A group of FWS program liaisons are reviewing the input received from the staff and the SFWAs and developing a recommendation for prioritizing species, to be considered by the FWS Regional Directorate Team, which will then coordinate next steps with NEAFWA on shared priorities. We anticipate engaging in a dialogue about an appropriate multi-species partnership structure to jointly coordinate conservation implementation with States.

WNTI

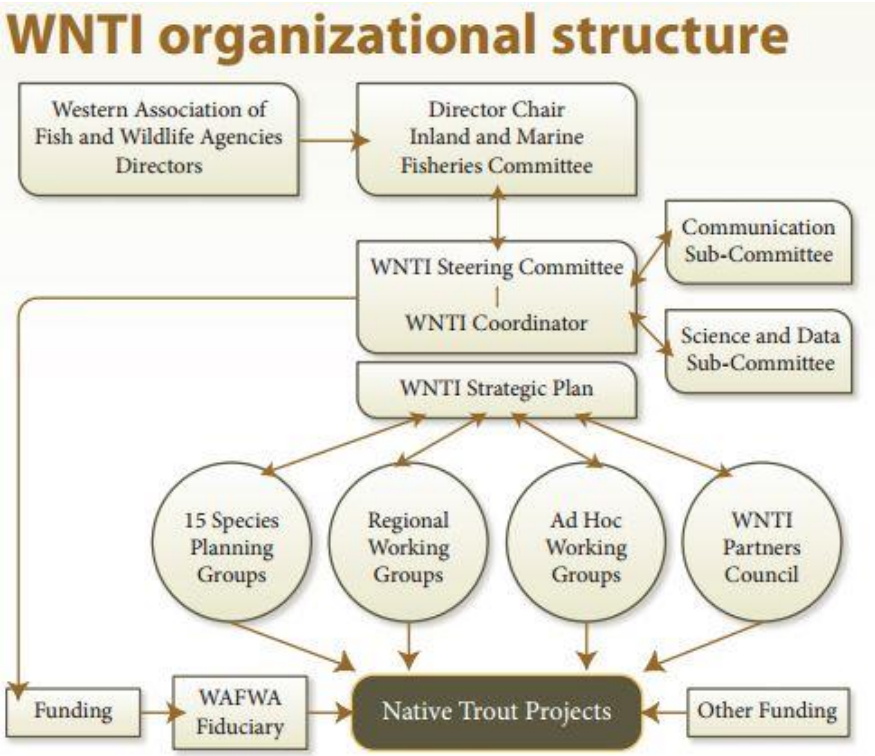
In 2006-2008, range and population assessments were completed for every WNTI species across WNTI's geographic area, and work continues presently to refine those assessments and further prioritize actions to improve species' conditions. During its formation in 2006-2008, WNTI created geographically-based interagency western native trout species assessment teams to conduct comprehensive and coordinated efforts to research and compile existing information sources (literature and data sets), available spatial GIS data, and professional opinion on all species covered under WNTI. WNTI's original strategic plan included identification of the following for each species: a review of existing plans and agreements, information gaps or management needs, conservation strategies that could be applied at a broad scale, and obstacles including climate change that may preclude or impede implementation of conservation actions.

In 2015, the WNTI Steering Committee reviewed the Plan for Strategic Actions and 2010 addendum, and subsequently updated the plan to document progress made since 2008 and to set goals for the next 5-10 years. In addition to our nexus with agency and organizational partners, WNTI also participates and interacts with the interagency recovery or range-wide conservation teams for our native trout species. These teams perform range-wide assessments, set conservation priorities, and implement projects to support those priorities. WNTI relies on the prioritization work done by the teams to inform our priorities.

Since 2012, the WNTI Steering Committee has used its revised RFP and rating criteria to ensure a consistent, objective, and strategic manner to review and recommend project proposals for funding. The revised RFP also provides improved guidance for project proponents to follow, with a greater understanding of WNTI and NFHP priorities, including climate change, in native trout conservation projects. Project applicants are required to demonstrate their project's alignment/compatibility with other conservation plans (SWAPs, Biological Opinions, Land Management Plans, Conservation Agreements, other regional conservation prioritization plans) and to reference those plans to show their projects are identified as a high priority in those documents. Applications are also required to have letters of support from the appropriate SFWA

and recommended to have letters of support from other partners to eliminate project proposals that are not considered high priority by multiple partners.

WNTI also maintains the individual species status assessments originally written by conservation teams for WNTI in 2007-2008 that contain status review information for all 21 WNTI species tied to habitat and conservation action priorities identified by the species recovery or conservation teams.



7) Does your partnership use the AFWA Resolution on Landscape Conservation as a guiding principles document or in any other capacity?

SECAS

Yes. The establishing premise of SECAS is fully consistent with the precepts and guiding principles of the AFWA resolution. SECAS establishes a forum for collaborative landscape conservation while recognizing and "honoring differing agency responsibilities and authorities"

that is unique in the Southeast. SECAS relies on the AFWA Resolution for continuing guidance in the operation and evolution of the partnership. A few specific examples of this guidance include:

Guiding Principle 2. SECAS uses the recommended steering committee format with stakeholder representation through a network of designated POCs that include representation from NGOs, private landowners (through the Southern Group of State Foresters), and SFWAs and federal natural resource management agencies.

GP 3. Consistent with the AFWA guidance, the SECAS goal calls specifically for a 10% improvement in the health, function, and connectivity of Southeastern ecosystems by 2060.

GP 4. The coordination, technical, scientific, and communication roles of SECAS are dedicated roles and work directly with the designated POCs, the SEAFWA Wildlife Diversity Committee, and the SECAS Steering Committee to implement the strategic direction and accomplishments of the partnership.

GP 5. SECAS has an established collective vision, complemented by an overarching goal and step-down metrics, and a Southeast Conservation Blueprint to guide work and support decision-making of the Southeast conservation community.

GP 6. SECAS directs specific coordination directly with the SEAFWA Wildlife Diversity Committee to develop shared priorities between FWS and SFWAs to address specific needs for SWAP implementation. These efforts further species conservation based on a collaboratively developed regional list of SGCN.

GP 7. The SECAS goal specifically addresses ecosystem health, function, and connectivity over a long-term time horizon with step-down metrics.

GP 11. SECAS is currently undertaking an in-depth examination of potential modifications to its governance structure and examination of long-term partnership needs to ensure its continuing operational success and alignment with partner and stakeholder needs.

MLI

Yes. The MLI benefited greatly from communication and discussion facilitated by AFWA on regional landscape conservation approaches. The white paper and resolution on landscape conservation developed by the task force and adopted by AFWA provided important background and underpinning guidance principles for the MAFWA landscape conservation resolution and this effort.

The MLI Charter, which is its primary governance document, incorporates or allows for accomplishment of every guiding principle provided for the in AFWA Resolution, and more specifically as follows:

GP1: The MLI is designed with the SFWAs and FWS as the primary members of the executive, policy-making body as well its primary technical arm, the Steering Committee and the Technical Committee, respectively. Other members of these bodies include USGS, as a primary partner. The priorities and direction of the MLI are set by the SFWAs and FWS members and by the regional geography of MAFWA, but participation in work groups and in implementation is open to all.

GP2: The MLI utilized a steering committee to set its policy direction. The Steering committee is comprised of SFWA Directors, FWS Regional Directors or their designees, as well as a seat for the USGS CRU Program Chief to advise on scientific direction and capacity. MAFWA also has an ex officio position that sits on the Steering Committee to provide a strong connection to the MAFWA organization. At this time, the MLI utilizes its work groups, which are responsible for developing recommended actions or identifying science needed, to engage with broader stakeholders, as identified in the resolution.

GP3: The MLI is developing a Comprehensive Action Plan that will provide a coordinated approach to supporting healthy and functioning natural communities and working landscapes that conserve fish and wildlife. The MLI has developed four priority areas; the strategies identified by the MLI Work Groups, recommended by the MLI Technical Committee, and endorsed by the MLI Steering Committee comprise this Action Plan. One of the priority areas of the MLI is prioritizing actions around SGCN or at-risk species.

GP4: The MLI utilizes a full-time coordinator to manage all affairs of the MLI. In addition, MAFWA provides two additional coordinators, an executive-level liaison and a technical coordinator, paid for by a cooperative agreement with the FWS, to manage work groups and support the flow of information from the work groups to the Technical Committee to the Steering Committee and back. MLI is currently working to develop some dedicated communications resources, in the way of shared positions with the SFWAs in the MLI or contracted services.

GP5: The MLI has identified preliminary priorities as well as goals and objectives to address them. MLI is in the process of developing a more comprehensive long-term vision and goals through a consultant and facilitated process. This consultant should also help develop preliminary measurable objectives to guide work and ensure accountability.

GP6: The MLI has a focal priority area of at-risk species and SGCN and is working to identify focal areas around their habitats. In addition, the MLI is a forum to discuss other emerging and/or complex wildlife management issues we encounter, such as CWD and our need to be more coordinated in our response to and research of it.

GP7: The MLI works across 13 states and four Interior Regions of the FWS.

GP8: The MLI has been primarily focused in its two years in forming the organization and beginning to develop the goals and objectives for the coordination. It will publish and preliminary Conservation Action Plan this summer that will begin to lay out some preliminary actions to address the challenges. Work on this Guiding Principle is needed and will be a focus of our engagement strategy as we pull in more partners and employ communication resources.

GP9: The MLI, comprised of science-based organizations, uses the best available science in identifying its priorities, defining its objectives and developing its strategies and recommended actions.

GP10: The MLI is utilizing the MAFWA committee structures and is working to engage with regional JVs and other existing committees. MLI has been tried not to be duplicative of other organizations and instead help to fill gaps and make connections where possible. Additional work is needed here and will be continuously reviewed.

GP11: The MLI has developed a priority review system which it will be utilizing at least bi-annually and possibly more frequently as it moves past its initiation phase. The developers of the priority-review system for the MLI contemplated the timing of the recommended reviews and determined that some time should be afforded to an identified priority, to determine if efforts to address it are or can be successful, but that the MLI should not maintain priorities that really are not within the purview of the membership or still relevant.

The GP of the Resolution have been valuable, but in addition, the MLI would benefit from additional coordination among the various regional and national initiatives. Specifically:

- There would be ongoing value in having a forum for regional landscape conservation efforts to communicate and check in with each other. This would allow them to share the latest information, learn from each other, identify opportunities to coordinate or collaborate where it makes sense, jointly evaluate progress at a national scale, and adaptively adjust.

- Several options to accomplish this could be considered, but AFWA would seem to be in the strongest position to facilitate such ongoing communication, either through existing committee structures or through a specific forum for ongoing sharing.

Nature's Network

While Nature's Network preceded the AFWA resolution, and is still finding footing after dissolution of the NALCC, it is solidly aligned with the intent of the guiding principles as follows:

1. While certain aspects of the LCC formation precluded State participation, in Nature's Network, NALCC sought to correct some of those issues, for example, the boundaries of the LCD extended to the regional boundary.

2. The NALCC steering committee included diverse policy level stakeholders.

3. Nature's Network explicitly includes ecological integrity, natural communities, and SGCN.

4. Nature's Network supported staff and communications as described, with the exception that inclusion within the FWS programs and across State programs was limited.

5. While Nature's Network embodies a clear LCD vision that was sought by the partnership, the established objectives were broad and not clearly connected to a measurable objective-setting process. Engagement in a process to step down Nature's Network to articulate measurable objectives for salt marshes, aquatic connectivity, at-risk species, Priority Landscapes, and Young Forest habitats was the intended direction of the NALCC steering committee at the time it was dissolved.

6. Nature's Network explicitly addresses a suite of surrogate species identified by FWS, RSGCN, natural communities, and a complete spectrum of ecological systems.

7. Nature's Network explicitly addresses resiliency, integrity, and connectivity across all terrestrial and aquatic systems.

8. Nature's Network lacks an implementation partnership—development of an implementation mechanism was the intended direction at the time of the dissolution of the NALCC.

9. Nature's Network was developed using the best available data and has been updated as needed.

10. Nature's Network is built upon existing landscape partnerships, incorporating the Chesapeake Bay Program partnership, science produced by JVs, approaches developed for the New England Cottontail Initiative, The Nature Conservancy science products, and RCN projects.

11. Nature's Network is currently being assessed for opportunities to update the LCD to better align with SFWA and FWS priorities, including at-risk species and other jointly held priorities. Efforts to refine and realign Nature's Network would benefit from reorganizing to evolve our State-FWS partnership model to meet current needs.

WNTI

No. We were not aware of it until this request, but we will be evaluating how we can align our activities to be consistent with it.

8) What "best practices" have contributed to the success of your partnership?

SECAS

The leadership, adaptability, commitment, and value factors listed in question 4 have been essential to driving the success of the SECAS initiative. Another best practice has been to ensure the partnership operates from a position of trust, which results from sustaining relationships among the Steering Committee, SFWA Directors and federal principals, the designated POCs, and among the diverse stakeholders and broader conservation community.

MLI

- Use of best available science to help guide decisions
- Collaborative approach
- Open and frequent communications with all partners; POCs developed
- Clear decision structure and support for decisions (governance)
- Staff time dedicated to the effort at regional and state scale
- Involves all relevant land management sectors (e.g. private lands, agricultural lands, protected lands, rights-of-way, urban and suburban)

- Effective use of existing organizations and teams, discussion forums, regional conferences, workshops, decision tools

- Seeking to incorporate more human dimensions and social science

Nature's Network

The AFWA White Paper includes "Best Practices for Landscape Conservation in the Northeast". The attributes described in question 4 are relevant here. Working to re-evaluate priorities and more deeply re-assess the direction of the partnership would have benefited the effort and helped to minimize partner fatigue. A practice not mentioned in the Best Practices that is critical to success is maintaining and documenting a very clear, predictable, accessible convening schedule and a transparent decision process are extremely important to keeping forward momentum.

WNTI

- Consistent meeting schedule that is set in January of each year to support broad participation by the steering committee.

- We have two in person meetings each year and have a tradition that the steering committee goes out to dinner as a group the first night. This builds relationships.

- Leadership calls between the coordinator, Chair and Vice Chair at least once quarterly.

- The steering committee has a policy of WNTI not writing letters of support for any project or activity that is not fully vetted and unanimously agreed upon by the entire steering committee.

- We have a robust outreach plan called the Campaign for Western Native Trout that keeps partners informed of our news, other partners' news, and builds public support for these native trout species.

- We communicate using a beautiful website, social media, ESRI Story maps, videos about our species and our projects, and full color reports that have wide appeal. Our goal is to explain the conservation successes and challenges of these species, decisions based on science, and make it understandable and compelling to new partners and the public. We are governed by state and federal agencies and other "formal" partners but our communication style with other funders, partners, and the public is not "governmental".

- You have to attract people to your organization and convince them you are competent, credible, and compelling.

9) What recommendations do you have for other such partnerships based on experience dealing with or overcoming pitfalls and hurdles in the past that have the potential to de-rail successful collaboration?

SECAS

SECAS has the benefit of evolution and adaptation over nearly a decade to address the need for collaboration at landscape scales among SFWAs, FWS and other federal agencies, and other partners. The niche for SECAS exists in supporting cross-jurisdictional conservation decision making. It's important for new partnerships to stay focused on the essential reasons for their original establishment, to stay true to their niche, and avoid the temptations to become all things to all partners.

MLI

- Prioritize. Do not try to solve everything. If everything is a priority nothing is a priority. Focus on priorities where the landscape partnership is important and value added to any existing landscape efforts that may already be underway.
- Look for opportunities for early successes.
- Focus on the key missions, authorities, and trust responsibilities of the state and federal fish and wildlife agencies. Seek to work collaboratively with others with complementary missions and compatible goals (e.g. clean water, soil health, precision agriculture, ecosystem services, climate change, etc.).
- Focus on shared priorities at a regional or sub-regional landscape scale. At a multi-regional or national scale, join or collaborate with other efforts in specific instances where identified priorities are shared, it makes sense, and there is value added.
- Consider the scale of tools developed to implement and monitor landscape approaches and what purpose they are intended to serve. For example, a coarse scale tool may be very useful for identifying and targeting priority landscapes; a very fine scale tool may be needed to plan and implement projects; a moderate scale tool may be needed to monitor and evaluate

effectiveness; and a coarse scale tool may be appropriate to communicate accomplishments and protect private data.

- Encourage innovation. Do not seek standardization for its own sake but encourage it where it enhances effectiveness, coordination, or communication within or across regions. Avoid a "one size fits all" approach except where it makes sense and adds value.
- Communicate. There should be clear, open, and frequent communications with all partners and potentially affected interests.
- Recognize the sovereign authorities of each State and tribe and how those fit with federal legal and trust responsibilities.
- All SFWAs and partners who want to participate should have clear avenues to do so. All should have specifically identified POCs for the effort. All partners with an interest in participating should be able to answer the question: "How are we engaged and fully participating in this effort?"

Nature's Network

It is crucial for partnership staff/management to remain neutral in decisions unless invited by the members. Every meeting or phone conference can be nuanced, and it is difficult for one person to receive and interpret all of the verbal and non-verbal signals in a group. Therefore, it is essential to take measures to ensure that people are heard, that messages are received as intended, and to make time for partnership staff to debrief and respond to any potential issues, as small matters compound over time.

WNTI

You need a paid coordinator whose responsibility it is to run meetings, coordinate partners, sustain and advance objectives and goals, and manage budgets and reporting.

Appendix B: Landscape Conservation Cooperative Projects Related to State Wildlife Action Plans

In June 2020 we searched the LCC Network Science Catalog (available at lccnetwork.org/catalog) using the terms "State Wildlife Action Plan" and "SWAP" and found the results below. These products may assist those seeking to use SWAPs for landscape-scale conservation.

1. FWC2016 -- Cooperative Agreement for Science and Communications Support
   Peninsula Florida LCC

   The PFLCC and Florida's State Wildlife Action Plan have goals in common including working with partners to develop shared priorities, working at the landscape scale, developing conservation targets to monitor progress of species and habitat conservation efforts, and providing a forum for dialogue about the most important actions to take to conserve Florida's natural and cultural resources. Partnering in these initiatives will achieve greater results for wildlife and habitat conservation in Florida. In addition, the FWC has already undertaken key activities that are foundational to the PFLCC including development of the Cooperative Conservation Blueprint and support of the Critical Lands and Waters Identification Project. FWC and the Service intend to strengthen their partnership regarding the PFLCC through cost sharing and staffing to meet science coordination and communication functions for the PFLCC.

   Product
   https://flcpa.databasin.org/datasets/d6091c69d76243979b91456e28cb035a

2. Midwest Regional State Wildlife Action Plan Coordination
   Upper Midwest & Great Lakes LCC and Eastern Tallgrass Prairie & Big Rivers LCC

   The Upper Midwest and Great Lakes (UMGL) and the Eastern Tallgrass Prairie & Big Rivers (ETP) Landscape Conservation Cooperatives (LCCs) are convening State Wildlife Action Plan Coordinators in the Midwest states of Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin to work across state boundaries to conserve species of greatest conservation need and their habitats. The partnership members have agreed to focus on three conservation priorities that are common among their State Wildlife Action Plans: freshwater mussels, pollinators, and large grassland complexes

with their associated species of greatest conservation need. Work under this partnership addresses implementation of these priorities as key components of each state's Wildlife Action Plan.

Products
https://lccnetwork.org/resource/regional-swaps-summary-spring-2017-report
https://lccnetwork.org/resource/bumble-bee-report-2018

3. Gulf Hypoxia Spatial Analysis - Precision Conservation Blueprints
Eastern Tallgrass Prairie & Big Rivers LCC and other LCCs

The multi-LCC Mississippi River Basin/Gulf Hypoxia Initiative is a joint effort to find the nexus of water quality, wildlife, and people in the Mississippi River Basin. Integrating hundreds of data layers into a coherent spatial analysis tool, the Precision Conservation Blueprint v1.0 will provide a significant targeting and planning tool for individuals and organizations across the basin to identify opportunity areas for the implementation of specific conservation practices that have maximum multiple benefits for wildlife, water quality (gulf hypoxia), and people and agricultural productivity.

Practice Fact Sheets identify a dozen or more high impact conservation actions that have potential for multi-sector benefits depending on design and position in the landscape.

Precision Conservation Blueprint v1.5 includes updated data layers, such as the 2016 revisions of State Wildlife Action Plans, and other stakeholder recommendations based on the 2016 Research & Design Forum.

Products
Databasin Mississippi River Basin/Gulf Hypoxia Initiative Blueprint Viewer:
https://databasin.org/groups/d52de40d017e4ce98c3914dba1bc4ee7

Conservation Designations - Mississippi River Basin (2016) –
https://databasin.org/datasets/c896a22ec47f46ad8c5ce9fa83a85890 (includes state designations of conservation focus areas from State Wildlife Action Plan 2015 updates).

4. Prioritization and Conservation Status of Rare Plants in the North Atlantic Region
North Atlantic LCC

The North Atlantic Region of the United States and Canada boasts diverse habitats, from coasts to mountains, that support endemic and rare plant species. However, recent conservation actions and prioritization efforts in this region have neglected to include plants. We have conducted a conservation assessment for vascular plants that occur in the North Atlantic Landscape Conservation Cooperative. Using the best scientific data, we have developed a list of vascular plant species of concern for the region. We have refined the list with the input of Natural Heritage and other regional botanists and experts. For each species, we have determined regional conservation responsibility, developed regional ranks, updated global ranks, provided a comprehensive review of climate change analyses, documented known threats, and identified gaps in conservation efforts. This project relied heavily on the knowledge and expertise of the Natural Heritage botanists in the region and the existing element occurrence data, conservation status assessments, and methodology of NatureServe and the Natural Heritage Network. The primary outcome is a prioritized list of rare plant species for conservation actions, with a comprehensive analysis of rarity, threats, trends, legal protection, inclusion in State Wildlife Action Plan revisions, conservation status, habitat, and climate change.

The final report for this project was completed in September 2017 and revised slightly in December 2017.

Products
Prioritization and Conservation Status of Rare Plants in the North Atlantic - Final Report (includes a spreadsheet of priority rare plants).

Note: some states in the NE (CT, MA, and VT) region include plants in their list(s) of Species of Greatest Conservation Need. These species were identified as SGCN when included in the regional list of priority plant species.

5. Integrating Climate Change into Washington's State Wildlife Action Plan Revision
North Pacific LCC

WDFW will use funds provided by the NPLCC to integrate climate change impacts and implications into our State Wildlife Action Plan (SWAP) Revision. We will secure appropriate expertise to review existing research and tools, including products prepared as part of the Pacific Northwest Vulnerability Assessment, and extract and apply

information that is relevant to specific components of our SWAP. Our intent is to integrate climate change throughout the SWAP Revision. Our goal for the SWAP is to evaluate climate change threats and actions not as a stand-alone concept but in the context of existing stressors and conservation challenges. The intent of this project is to ask the so what questions. How should our conservation priorities shift because of what we are learning about climate change through vulnerability assessments and other research projects? How can we select priorities to address species recovery needs, which will also create resilience to expected climate change impacts? How should the climate sensitivity of habitats affect our management of the species within them?

Product
Final Report: Integrating Climate Change into Washington's State Wildlife Action Plan Revision

6. Federal-State Partnerships in Implementing Strategic Habitat Conservation: Incorporating Surrogate Species Concepts into State Wildlife Action Plans
North Atlantic LCC

In the face of rapid environmental change, a strategic approach is necessary to most efficiently target conservation actions for the hundreds of fish and wildlife species for which the agencies are responsible. One element in the strategic approach advanced by the U.S. Fish and Wildlife Service is to select a subset of "surrogate" species that represent the needs of this broader set of species. Selecting surrogate species and establishing population objectives can be used to help answer critical questions about the types, amounts, and locations of conservation actions needed across the landscape. However, selecting species and population objectives is only a first step. For surrogate species concepts to actually benefit fish and wildlife populations, a method for incorporating them into more comprehensive planning processes is needed to target concrete conservation actions. In this project, the North Atlantic Landscape Conservation Cooperative used an approach not only to compile lists of surrogate species, population objectives, limiting factors, and conservation actions but also to incorporate surrogate species into a collaborative, regional effort to identify Conservation Opportunity Areas reflecting Service and State conservation priority areas for Wildlife Action Plans in the Northeast.

Product

See https://www.sciencebase.gov/catalog/item/5996d0cae4b0b589267bb952 for links and associated products.

7. Designing Sustainable Landscapes in the Northeast Region
North Atlantic LCC

This project highlights the potential for LCCs to facilitate collaboration among conservation practitioners and research scientists to plan for the future. A team of UMass scientists is developing a landscape change, assessment and design model to assess ecosystems and their capacity to sustain populations of wildlife in the northeastern U.S. in the face of urban growth, climate change, and other stressors. The project plays a major role in developing the science and data for two collaborative landscape planning and design efforts: 1) the pilot Landscape Conservation Design for the Connecticut River Watershed, and 2) Nature's Network, which expands and elaborates on the data to extend to throughout New England and the Mid-Atlantic. Using the best available science and information, participating partners are developing tools and strategies for conserving a connected network of lands and waters to sustain natural resources and communities within the watershed. This project is designed to support the overall goals of the North Atlantic Landscape Conservation Cooperative (NALCC), which are as follows:

a. Assess the current capability of habitats in the NALCC to support sustainable populations of wildlife;

b. Predict the impacts of landscape-level changes (e.g., from urban growth, conservation programs, climate change, etc.) on the future capability of these habitats to support wildlife populations;

c. Target conservation programs to effectively and efficiently achieve objectives in State Wildlife Action Plans and other conservation plans and evaluate progress under these plans; and

d. Enhance coordination among partners during the planning, implementation and evaluation of habitat conservation through conservation design.

As of May 2016, the project team, working with partners, finalized a collaborative

Landscape Conservation Design for the Connecticut River Watershed known as Connect the Connecticut. This collaborative project, developed with guidance from a team of federal, state, and nongovernmental organizations in the watershed, is intended to advance conservation of fish, wildlife, and the ecosystems on which they depend in the watershed. It was also a pilot for testing the application of the information and tools developed by the project team for other regions. This project was extended to support the development of conservation design work for the Northeast U.S. with state fish and wildlife agencies and other partners, an effort known as Nature's Network (formerly, Regional Conservation Opportunity Areas).

Regionally consistent spatial datasets and models for the 13-state Northeast region are an integral part of the [Nature's Network Conservation Design](http://naturesnetwork.org/data-tools/) and suite of products. Many of these datasets are available for viewing and download in a gallery on the North Atlantic LCC Conservation Planning Atlas hosted by DataBasin - https://nalcc.databasin.org/galleries/dc2f56fa047144f0a9659c3709e022f2#expand=43916%2C43917. Examples include:

- Index of Ecological Integrity - an assessment of the ability of natural areas to sustain biodiversity and ecosystem processes over the long term;
- Landscape Capability datasets for a number of representative species, such as American Woodcock, Black Bear, Marsh Wren, Moose, Ruffed Grouse, Wood Duck, and Wood Thrush (full list: https://docs.google.com/document/d/1KWmgbCSUJ_N4caQat1iXl-gxkOT0D1AxwqzBwaxNVSQ);
- A series of climate projections by decade for 2010-2080;
- Major enhancement of the region's stream network mapping (high resolution hydrography, NHD 1:24,000 scale)

This project was co-funded by the North Atlantic Landscape Conservation Cooperative and Northeast Climate Adaptation Science Centers.

Products

Nature's Network geospatial data products, available through the Northeast Conservation Planning Atlas, or at https://www.fws.gov/northeast/science/resources-and-data.html

Reports and access to many data products available at http://jamba.provost.ads.umass.edu/web/lcc/dsl/dsllinks.htm

8. Data Needs Assessment
   Appalachian LCC

   The Data Needs Assessment research project was undertaken to review the variety of resources on conservation planning to provide packages of products, data, and identified data gaps to improve conservation planning in the Appalachian LCC. A suite of core conservation planning products and data from principal investigators at Clemson University are now available to the Cooperative.

   Deliverables from this research include:

   a. An analysis of State Wildlife Action Plans in the Appalachian LCC that describe how information contained in these plans can be linked to integrate state and local-scale efforts into a regional conservation framework;

   b. A list of 21 conservation planning tools, describing function and relevance of each towards the Cooperative conservation planning goals;

   c. Interpretive text and graphics of conservation planning tools shared through the LCC Web Portal for users to learn about the tools available and what purposes they could serve;

   d. Interpretive text and graphics that describes the data that can be posted to the Web Portal;

   e. A final report that assembles all these elements and provides recommendations on how LCC members and partners can use this information to collect finer-scaled data from states, expand on work accomplished at individual state levels and "scale up" to the LCC level, and deliver data in a format that is useful for individual states and regional planning.

Products
Data products and report available at
https://www.landscapepartnership.org/research/data-needs-gis-group/data-needs-assessment

9. Facilitating the Effectiveness of State Wildlife Action Plans at Multiple Scales in the Upper Midwest/Great Lakes LCC Region
Upper Midwest & Great Lakes LCC

Working within the constraints of the SWAP revision timeline, we propose to advance biodiversity conservation within the region by enhancing the regional effectiveness of SWAPs and the ability of the LCC to address regional biodiversity priorities. We propose to accomplish these outcomes through engagement of SWAP coordinators and LCC professionals in the creation of a set of detailed best practices and learning resources tailored to needs that they help to identify. We will regularly engage with the SWAP coordinators as we develop these resources to allow each state to influence and employ the resources as needed, recognizing that time and resources to participate in this project will vary among states. As part of the assessment of current SWAP revisions, we will work closely with the SWAP coordinators to identify barriers and constraints for employing the best practices for the eight required elements (as recommended in a recent report by the Association of Fish and Wildlife Agencies). The purpose is to report on the range of approaches taken across states with respect to these components, and to help identify potential roles for the LCC to play in facilitating conservation from a regional perspective. We will also identify opportunities to achieve greater consistency among SWAPs by identifying the most significant threats in the region, evaluating which strategies could have the biggest impacts across the region (by influencing multiple targets) and recommending specific actions based on current examples that are showing the most success in mitigating threats.

Product
Report - https://lccnetwork.org/resource/report-facilitating-effectiveness-state-wildlife-action-plans-multiple-scales-upper
**Note: it is worth reading through the Executive Summary of the final report. It highlights both the challenges of integrating SWAPs across state lines and provides 3 broad recommendations on how to improve integration.

- The first is for the states to adopt a consistent approach when addressing each of the eight elements.

- The second recommendation is to develop a regional conservation network; something that was strongly supported by most SWAP coordinators.
- Third, in order to accomplish the goals and recommendations mentioned above, we also recommend that the SWAP coordinators and UM/GL LCC staff adopt the Collective Impact approach described by Kania and Kramer (2011).

10. Identifying Regional Priority Areas for Focusing Conservation Actions in Streams and Grasslands
    Upper Midwest & Great Lakes LCC

    In the United States, many resources devoted to conservation are routed through states, but animal and plant populations do not conform to state boundaries. Consequently, neighboring states can enhance their collective conservation impact by coordinating natural resources management. In order to support managers as they review and revise state Wildlife Action Plans in Illinois, Indiana, Michigan, and Wisconsin, this project identified regional conservation priorities for streams and grasslands of the Upper Midwest.

    Specifically, we (1) selected stream and grassland species of common conservation interest to partnering states, (2) modeled and mapped regional distributions of these species, and (3) used predicted species occurrences to identify regional conservation focal areas. We focused on 31 native grassland and stream species: eight birds, 10 freshwater mussels, 12 fish, and one salamander. The birds, mussels, salamander, and one fish were listed as Species of Greatest Conservation Need (SGCNs) by at least two participating states. The remaining 11 fish were reproductive hosts for the selected freshwater mussels. With the help of state Departments of Natural Resources, Natural Heritage programs, and other project partners, we compiled comprehensive occurrence data for all 31 species and compiled environmental data for streams and grasslands across the Upper Midwest.

    Product

    Report available at https://lccnetwork.org/resource/report-identifying-regional-priority-areas-focusing-conservation-actions-streams-and

11. A Landscape Approach for Fisheries Database Compilation and Predictive Modeling
Desert LCC and Southern Rockies LCC

A strong data foundation is needed to inform science-based decisions for fisheries management at a watershed level. In preparation for a shift towards comprehensive watershed-scale planning, Arizona Game and Fish Department (AGFD) is developing a fisheries data management system with an initial focus on compiling and formatting several hundred thousand fish survey and stocking records. Fish data will be integrated within a Geographic Information System (GIS) by georeferencing observations to an existing national spatial framework (National Hydrography Dataset), which will allow for broader transferability to watersheds shared with neighboring states, creating a seamless layer not limited by state boundaries. In addition to the ongoing effort and need to synthesize and refine fisheries data and models at the watershed scale, the AGFD has also created landscape-scale species distribution models for 35 fish species as outlined in the Species of Greatest Conservation Need list of the State Wildlife Action Plan. Arizona's landscape-scale species distribution models are also being used in other projects, most notably the Western Governors Association (WGA), Critical Habitat Assessment Tool (CHAT). AGFD will also offer neighboring states both the expertise and personnel to create similar models for shared Species of Greatest Conservation Need. This partnership would not only benefit the neighbor state with the creation of SDMs for Departmental need/use, but would also fulfill the need of other projects such as the WGA CHAT's effort.

Products

Species occurrence data available at https://lccnetwork.org/resource/species-occurrence-data

Final report available at https://lccnetwork.org/resource/final-report-landscape-approach-fisheries-database-compilation-and-predictive-modeling-0

12. Regional Synthesis for State Wildlife Action Plans
North Atlantic LCC

The North Atlantic LCC and Northeast states developed a synthesis of regional conservation information for State Wildlife Action Plan (SWAP) revisions. The compiled

information on species and habitats provided a regional context for SWAP elements and has been made available for voluntary inclusion into each state's Plan via a dynamic, web-based information management system.

Products

Final report available at https://lccnetwork.org/resource/taking-action-together-northeast-regional-synthesis-state-wildlife-action-plans

13. A climate change update to Indiana's State Wildlife Action Plan
Upper Midwest & Great Lakes LCC

Indiana's State Wildlife Action Plan was completed in 2005. The plan identified Indiana's priority needs for all fish and wildlife species and priority efforts to address those needs. The U.S. Fish and Wildlife Service (FWS) developed a network of Landscape Conservation Cooperatives (LCCs). The purpose of the LCCs is to provide applied science to increase the efficiency of conservation delivery for conservation priorities shared by FWS, the States and other conservation partners in the face of climate change and other landscape-scale conservation challenges. Identification of evolving fish and wildlife needs and priorities, among the State and Federal fish and wildlife management agencies and their partners, is vital to the success in managing these resources. This effort will assist in the identification of shared research and science needs and priority actions relative to the effects of climate change on fish and wildlife and their habitats.

The Indiana Division of Fish and Wildlife (DFW) believes the LCC initiatives will, very broadly stated, produce for Indiana and ideally for the LCC network:

- Science based and validated, standardized species inventory and monitoring techniques
- Science based data management structures and responsibilities
- Science based classification systems and standards for habitat types
- Science based and structurally sound mechanisms for partnerships such that meetings and decisions are fact based and open to all partners for participation regardless of travel or other restrictions (new modeling technology)

Product

Report available at https://lccnetwork.org/resource/report-climate-change-update-indianas-state-wildlife-action-plan

14. PFLCC Priority Resources
Peninsula Florida LCC

Priority resources are the set of biological, ecological, and cultural features and ecological processes collaboratively identified as most important or most significant for the focus geography. These resources embody the key components of the Peninsular Florida Landscape Conservation Cooperative (PFLCC) vision, which is a collective vision that reflects the mission, vision, common interests, and values of the focus geography partners. The priority resources are the focus of the PFLCC's planning, design and implementation of conservation strategies (Benscoter et al. 2015). In Spring 2015, PFLCC's Steering committee unanimously voted to adopt the SWAP (the Florida State Wildlife Action Plan) habitats as the basis for the PFLCC Priority Resources. These provided the starting points for PFLCC's PRs. Three of the 12 PR's are not habitat based but rather conceptual (i.e., Connectivity, Cultural and Socioeconomic). The n9 PR's that are habitat based were further refined using the aggregated model priorities 1 and 2 from the Critical Lands and Waters Project Identification Project. Together the Priority Resources of the PFLCC represent the Landscape Conservation Design, called the Blueprint v. 1. The Blueprint is currently publicly available on the PFLCC'S Conservation Planning Atlas Website.

Product

GIS Data available at
https://www.sciencebase.gov/catalog/item/5a046259e4b0dc0b45b47f75

15. High resolution landcover for the Western Gulf Coastal Plain of Louisiana and Texas
Gulf Coast Prairie LCC

The Gulf Coast Prairies LCC has initiated efforts to improve biological planning and landscape conservation design with a focus on implementing State Wildlife Plans (SWAPs) for the benefit of focal species and pollinators. To facilitate landscape conservation planning, the GCP LCC has supported land cover data projects as well as refining a platform for grassland planning, inventory and monitoring (G-MIT). These

data are shared nationally through ScienceBase and the GCP Conservation Planning Atlas and used to inform their Grassland Decision Support Tool. While this work has been limited to parts of Texas and Oklahoma there is great interest and need to create high resolution, seamless and consistent land cover data for the Western Gulf Coastal Plain of Louisiana and Texas. These data will improve ongoing efforts to create a grassland land cover data set and will integrate with research and monitoring efforts such as the Gulf of Mexico Avian Monitoring Network, USGS pollinator survey and Monarch conservation planning efforts.

Products

Data products available at
https://www.sciencebase.gov/catalog/item/5925e395e4b0b7ff9fb3cbc6, and
https://www.sciencebase.gov/catalog/item/5925d999e4b0b7ff9fb3cb6b

16. Ozark Highlands Comprehensive Conservation Strategy
    Gulf Coastal Plains & Ozarks LCC

Conservation planning and delivery is often carried out by multiple stakeholders in isolation and constrained to political boundaries. Developing a regional conservation blueprint through partnership is an important component of the effort to conserve biodiversity in the face of declining agency capacity (staff and budgets) and rapidly changing landscapes and climate. In 2012, Missouri, Oklahoma, and Arkansas committed to developing a shared vision for conservation in the Ozark Highlands ecological region. Staff from the Gulf Coastal Plains & Ozarks Landscape Conservation Cooperative and the Central Hardwoods Joint Venture engaged in this effort to provide geospatial and conservation planning capacity. The resulting products provide a preliminary conservation design that can be used to fulfill some of the requirements for State Wildlife Action Plan (a.k.a. Comprehensive Conservation Strategy) revision for the Ozark portion of the respective states. Further, the process provides the JV and LCC a partner-driven framework for conservation design and delivery that is transparent, replicable & defensible (i.e. scientific). This project embodies Strategic Habitat Conservation and sets the pace for conservation regionally and nationally by demonstrating how to develop a comprehensive plan/strategy by ecological unit that spans multiple states.

Product

Report available at
https://www.sciencebase.gov/catalog/item/5a0cc6dee4b09af898cd5614