



Fish and Wildlife Relevancy Roadmap (v1.0)

Enhanced Conservation Through Broader Engagement



*A practical guide to help fish and wildlife agencies
engage and serve broader constituencies*



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Table of Contents

DEDICATED TO THE MEMORY OF STEPHEN ROBERT KELLERT 1943 - 2016	3
MESSAGE FROM THE PRESIDENT OF THE ASSOCIATION OF FISH AND WILDLIFE AGENCIES	4
FOREWORD	6
EXECUTIVE SUMMARY	8
INTRODUCTION	13
HOW THE RELEVANCY ROADMAP WAS DEVELOPED.....	15
WHERE DOES THE RELEVANCY ROADMAP GO FROM HERE?	16
HOW TO USE THE RELEVANCY ROADMAP.....	16
Some Helpful Road Signs	18
STAYING ON TRACK: EVALUATING RELEVANCY EFFORTS.....	18
The Relevancy Roadmap as a Foundation for Evaluation	20
AGENCY CULTURE	22
Barrier 1: Agency culture and values do not align with nature-based values and outdoor interests of broader constituencies.....	22
Barrier 2: Agency is not adaptive to the changing nature-based values and outdoor interests of broader constituencies.....	31
Barrier 3: Agency has a competitive and siloed culture that inhibits collaboration.	33
AGENCY CAPACITY	37
Barrier 1: Agency lacks sufficient and diverse funding to provide programs and services to broader constituencies.....	37
Barrier 2: Agency lacks capacity (expertise, staffing, resources) to identify, understand, engage with, and serve the needs of broader constituencies.....	40
Barrier 3: Agency lacks capacity to develop and implement plans that engage and serve broader constituencies.....	44
Barrier 4: Agency lacks capacity to create and sustain effective partnerships to serve broader constituencies.....	46
Barrier 5: Agency lacks expertise and knowledge to provide outdoor recreational experiences that serve broader constituencies.	47
CONSTITUENT CULTURE	50
Barrier 1: Perception by broader constituencies that fish and wildlife agency only cares about, and serves, hunters and anglers.....	50

Barrier 2: Constituents may have fears, concerns, or beliefs that prevent them from engaging with nature.	54
Barrier 3: Constituents may not recognize the threats facing fish and wildlife, habitats, and humans or how to engage to address the threats.	56
Barrier 4: Some constituents are resistant to an agency engaging and serving broader constituencies.....	59
CONSTITUENT CAPACITY.....	63
Barrier 1: The outdoor recreation pursuits of broader constituencies are limited by real and perceived barriers such as economics, cultural norms, nature-based values, outdoor interest, and access.....	63
Barrier 2: Broader constituencies do not value the benefits nature provides.....	67
POLITICAL AND LEGAL CONSTRAINTS.....	73
Barrier 1: Agency decision-making processes are used and influenced by a limited number of constituencies.....	73
Barrier 2: Lack of higher-level executive support for agency engagement with broader constituencies.....	77
Barrier 3: Agency governing bodies may not represent the nature-based values and outdoor interests of broader constituencies.....	79
Barrier 4: Lack of legislative support to engage and serve broader constituencies.	81
Barrier 5: Policies, practices, legal authorities, and funding restrictions limit an agency's ability to serve broader constituencies.	83
CONCLUSION.....	86
LITERATURE CITED	87
Appendix A: Glossary.....	89
Appendix B: Barriers, Strategies, Steps, Tactics	90
Appendix C: Association of Fish and Wildlife Agencies Relevancy Resolution.....	118
Appendix D: Blue Ribbon Panel on Sustaining America’s Diverse Fish and Wildlife Resources Report.....	119
Appendix E: Governance Principles for Wildlife Conservation in the 21st Century.....	131
Appendix F: Public Trust Roles and Responsibilities	132
Appendix G: Links to Additional Resources and Suggested Reading	133

DEDICATED TO THE MEMORY OF STEPHEN ROBERT KELLERT

1943 - 2016

Dr. Steve Kellert was a distinguished Yale professor and one of the world's leading scholars on the relationships humans hold to wildlife, nature, outdoors, and places. He was also a committed member of the Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources, a lead editor of the Panel's final report and co-chair of its working group on relevancy and agency transformation. Steve convincingly and persistently argued that relevancy and agency transformation were as important to fish and wildlife conservation as the need for increased funding. The Panel's second recommendation addressed the issue of relevancy due to Steve's influence. This Relevancy Roadmap responds to that recommendation of the Blue Ribbon Panel.



In addition to his recent participation on the Association of Fish and Wildlife Agencies Blue Ribbon Panel, Dr. Kellert was a long-time advocate of the need for increased funding for conservation, especially in his home state of Connecticut. His seminal research in the 1970s advanced our understanding of the human side of wildlife management and the challenges that diverse attitudes toward wildlife bring. Along with Harvard professor E.O. Wilson, he helped coin the concept and term “biophilia” describing humans’ dependence on nature. His study with DJ Case and Associates of nearly 12,000 American adults, children, and parents illuminated the growing disconnection between people and nature and the course of action needed to reverse this trend.

In 2018, the Association of Fish and Wildlife Agencies honored Steve by creating an annual award in his name that recognizes a distinguished individual or group effort for outstanding service in advancing connections between humans and the natural world to all people in a diverse and inclusive manner. Through the many students he taught and advised as a professor at Yale University and the innumerable professionals he reached through the 180 publications he authored or co-authored, Dr. Kellert left an indelible mark on the field of conservation. And despite the many awards and distinctions he earned during his career, he remained humble, approachable, intensely curious and 100% committed to the cause of conservation. His generosity of spirit and intellect will long be felt by those who had the privilege of his counsel and his collaboration.

PRESIDENT'S MESSAGE

Association of Fish & Wildlife Agencies

According to the Merriam-Webster dictionary, relevance is the quality or state of being relevant or practical, especially with social applicability. Blacksmiths were a group of hardworking people whose products varied from the practical to magnificent works of art. I don't know whether they had a "Blacksmiths of America Association," but if they did, I can envision their president rising at their annual meeting in 1903, in response to the increasing number of automobiles, to say, "Americans have always needed horseshoes and wagon rims, we are really good at producing them, and that's what got us here and we will not deviate from that mission."



In my 45-plus-year career as a wildlife professional, I have seen plenty of change, both within the field of fish and wildlife conservation and in society as a whole. Our nation's population has never been more diverse, urban, educated, or dependent on technology. Growing up in a predominantly rural area, hunting and fishing were the norm for me and most of my friends. Today far more people participate in other forms of outdoor recreation such as wildlife viewing, paddling, hiking, and mountain biking. These changes have implications not just for the Tennessee Wildlife Resources Agency, but also every other fish and wildlife agency. In the midst of all this change, we in the fish and wildlife profession must ask ourselves, "Are we still relevant to the people we serve?" If the answer to that question is "no" or "maybe," then we may need to seriously evaluate what we are doing, how we are doing it and for whom we are doing it.

The Fish and Wildlife Relevancy Roadmap is intended to be a nonprescriptive guide to help fish and wildlife agencies adapt to changing societal conditions. The goal of the Roadmap is simple: "enhance conservation through broader engagement." Another way to say this is if we don't start engaging a larger segment of the public, then the influence of fish and wildlife agencies, which are entrusted by citizens to conserve fish and wildlife, will be severely challenged and our chance of success will be in doubt.

As Director of the Tennessee Wildlife Resources Agency, I know the importance of serving broader constituencies. In fact, it's written into our enabling legislation that we will serve all the citizens of the State of Tennessee. And yet in reality I'm only too aware of the fact that, due to a lack of awareness and engagement, many of our citizens may question our fulfillment of that directive. I'm also aware there are a number of barriers that inhibit us from achieving that mandate. The Roadmap identifies many of those barriers and offers practical strategies and actions for addressing them. I have no doubt that my state is seriously beginning the process of examining our role in today's diverse society and is implementing the changes necessary to maintain our relevance in the 21st century. I'm confident other fish and wildlife agencies will do so as well.

As President of the Association of Fish and Wildlife Agencies, I'm very proud of the leadership role that it and the Wildlife Management Institute have taken to address the issue of relevancy in our fish and wildlife agencies. The research is clear that in America today, our citizens are more and more disconnected from nature and the outdoors, and that disconnection makes our jobs as protectors of fish and wildlife all the more difficult. What people don't know or understand they won't care about, and if they truly don't care, then the role and past success of fish and wildlife agencies will be in peril. My hope is that you will read this report, identify the barriers and strategies that most apply to your agency or community, and begin the hard work of instituting change so we can continue to be the leaders of fish and wildlife conservation in the 21st century.

Ed Carter



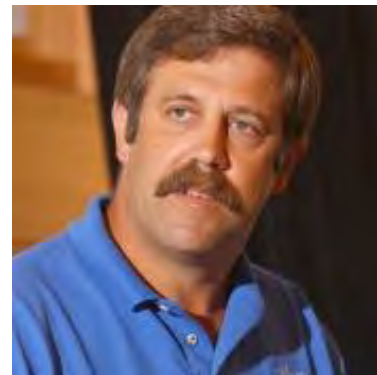
President, Association of Fish and Wildlife Agencies (2018-2019)
Director, Tennessee Wildlife Resources Agency



FOREWORD

*Tony Wasley, Director, Nevada Department of Wildlife
Steve Williams, President, Wildlife Management Institute*

Driven by the broad conservation obligations of state fish and wildlife agencies and inadequate funding to achieve these expectations, the Association of Fish and Wildlife Agencies (AFWA) convened the Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources in 2015. The Panel recognized the urgent need for additional funding requisite to meet the modern, expanding challenges of fish and wildlife conservation confronting these agencies. Central to the Panel's discussion was the identification and pursuit of additional funding sources or mechanisms. While waiting at the airport after the Panel's September 2015 meeting at Big Cedar Lodge in Missouri, Steve Kellert and Steve Williams discussed their belief that inadequate funding was really a symptom, and not a cause, of the lack of relevancy of conservation in the lives of many Americans. A few months later, at the December 2015 Panel meeting in Houston, Texas, both Kellert and Williams requested that the Panel add a second recommendation specific to the need for increased funding for the management of fish and wildlife. The second recommendation of the Blue Ribbon Panel established the foundation for the Fish and Wildlife Relevancy Roadmap – a roadmap that would allow agencies to adapt to the nation's changing demographics and values by increasing agency engagement with and service to broader constituencies.



Building on presentations and workshops conducted at previous North American Wildlife and Natural Resources Conferences, the Association of Fish and Wildlife Agencies formed a Relevancy Working Group. The untimely passing of Steve Kellert slowed progress and slightly changed the direction of the Relevancy Working Group, but it forged ahead. Although work progressed slowly in the intervening years, the effort was reinvigorated by a July 2018 meeting in Denver, Colorado, where the Wildlife Management Institute hosted a meeting of AFWA representatives and other experts in the field of human dimensions research, public engagement, and state agency wildlife management. As a result of ideas and consensus formed at that meeting, AFWA passed a resolution at its September 2018 annual meeting that approved and directed the group to continue to develop what is now contained in this document.

Many involved in this Relevancy Roadmap effort believe that this work addresses the most important challenge confronting natural resource agencies that we have faced in our careers. We have made tremendous progress in restoring fish and wildlife populations and their habitats since the turn of the

20th century. Our understanding of ecological principles and science-driven decisions has created conservation success stories that are the envy of the world. However, if we do not adapt to the changing social demographics that are characteristic of the 21st century, the durability of those successes becomes uncertain.

Over 12 months and through the work of more than 60 individuals from the U.S. and Canada (employed by state and federal agencies, nongovernmental organizations, tribes, business, industry, and academia, as well as private citizens) the Fish and Wildlife Relevancy Roadmap took shape. These individuals drew on successful efforts to date, personal and professional experience, and academic research to identify barriers to public engagement, strategies to address those barriers, and tactics by which to implement those strategies. What resulted from their tireless work is a practical roadmap to relevancy. Like all roadmaps, it is not prescriptive and is intended for voluntary use. It simply provides various routes based on the capacities and challenges facing each agency or organization wishing to broaden their reach and service to more constituents.

Through the application of the recommendations presented in this document, we envision a future where fish and wildlife conservation becomes a foremost issue for all, where the public understands the powerful impact that fish and wildlife conservation has on their quality of life and mental and physical well-being. The fish and wildlife profession is concerned about more than just managing fish and wildlife populations – it is committed to protecting and maintaining quality lands that provide clean air, clean water, carbon sequestration, flood retention, pollinator habitat, food and fiber production, and outdoor recreation available to all constituents. We envision a future where all constituents proudly support conservation both socially and financially. For more than 100 years, hunters and anglers have provided the overwhelming majority of financial support for conservation through their license dollars, excise taxes paid on equipment, and contributions to conservation organizations. Sustaining our diverse fish and wildlife resources in the future will require all other constituents to join ranks with our traditional supporters. Broadening financial support for conservation will help us address the challenges of keeping species abundant and providing vibrant landscapes that support a healthy economy.

Finally, we want to thank Coordination Team members Matt Dunfee, Ann Forstchen, Elsa Haubold, Mark Humpert, Jen Newmark, Jason Sumners, and Chris Smith for their tireless dedication to this project. Their work was essential, kept us on schedule, and provided a consistent approach to strategy development. We also thank the many Strategy/Tactic Team members who are identified on page 2 of this document. These individuals spent countless hours over the course of the last year identifying and defining potential paths forward to overcome barriers facing each of the agencies and organizations for which they work. This work was truly beyond their already overcommitted workload. We thank their supervisors for understanding their importance to this project and the importance of the project to our profession.

The Relevancy Roadmap is ready for a test drive. We ask that you find your place on the map and chart a journey and destination that will help you engage and serve a broader constituency.

EXECUTIVE SUMMARY

The social and ecological context for fish and wildlife conservation in North America is changing rapidly. Habitat loss, invasive species, declines in biodiversity, and the impacts of climate change are accelerating. At the same time, society is increasingly diverse, urban, and disconnected from nature. The number of hunters and anglers – the historic funding base for state fish and wildlife agencies – is declining. In response to these trends, fish and wildlife agencies must find ways to engage and serve broader constituencies to expand the financial and political support necessary to ensure the future of North America’s conservation legacy.

Starting in early 2018, a small group of staff from several state and federal fish and wildlife agencies, the Association of Fish and Wildlife Agencies, and the Wildlife Management Institute began working to address relevancy under the leadership of Tony Wasley, Director of the Nevada Department of Wildlife, and Steve Williams, President of the Wildlife Management Institute. The group examined the literature and used their professional experience to identify barriers that make it difficult for agencies to engage and serve broader constituencies. The barriers were found to fall within five categories: agency culture, agency capacity, constituent culture, constituent capacity, and political and legal constraints.

In July 2018, this group met with Association of Fish and Wildlife Agencies leadership and representatives from agencies and nongovernmental organizations to refine the list of barriers and outline a process to provide agencies with strategies to overcome those barriers. In September 2018, state fish and wildlife agency directors approved a resolution to commence development of a “Fish and Wildlife Relevancy Roadmap” as a nonprescriptive tool to help agencies chart a course for engaging and serving broader constituencies.

Over the next 10 months, more than 60 individuals from state, provincial, and federal agencies, tribes, nongovernmental organizations, and natural resource and outdoor industries worked in five category-specific teams to develop this Roadmap. The teams used an adaptation of the [Open Standards for the Practice of Conservation](#) as a logic framework to refine the list of barriers and to develop strategies and tactics to overcome each barrier. Each strategy involves a series of steps that produce intermediate results leading to the ultimate goal of enhanced conservation through broader engagement. Figure 1 illustrates the relationship between a barrier, strategy, steps, and tactics.

Across the five categories mentioned above, the teams agreed to focus their work on 19 barriers to engaging and serving broader constituencies (Figure 2). The teams developed a rationale for each of the strategies to overcome the barrier and identified tactics that might be used to implement the strategy. When possible, examples of current efforts to engage and serve broader constituencies were highlighted to illustrate how agencies are already working to expand their reach to new audiences.

Figure 1. An example of a barrier, strategy, steps, and tactics developed to engage and serve broader constituencies.

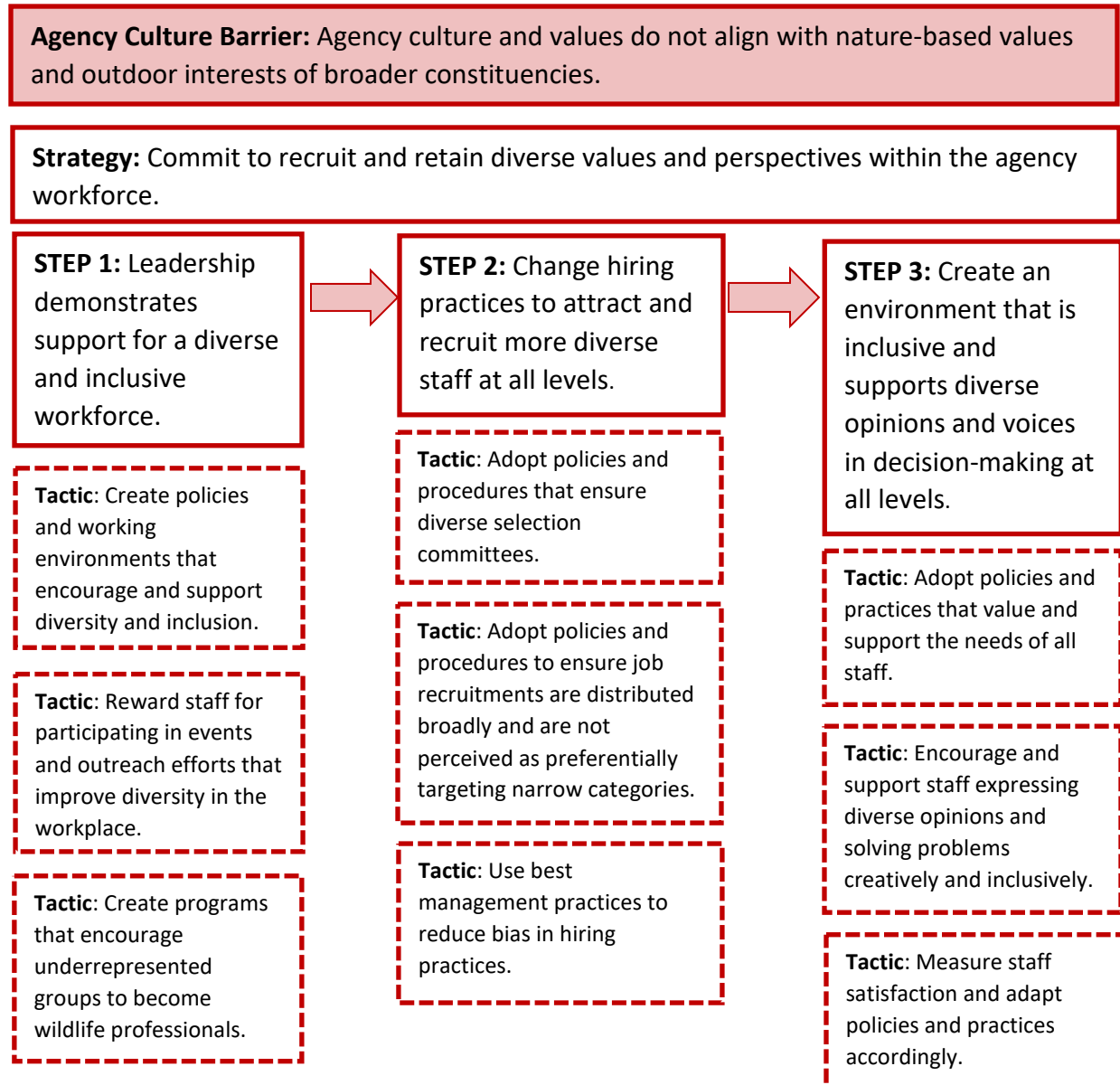


Figure 2. List of barriers to engaging and serving broader constituencies.

Category					
	Agency Culture	Agency Capacity	Constituent Culture	Constituent Capacity	Political & Legal Constraints
Barriers	Agency culture and values do not align with nature-based values and outdoor interests of broader constituencies.	Agency lacks sufficient and diverse funding to provide programs and services to broader constituencies.	Perception by broader constituencies that fish and wildlife agency only cares about and serves hunters and anglers.	Broader constituencies' outdoor recreation pursuits are limited by real and perceived barriers such as economics, cultural norms, nature-based values, outdoor interest and access limitations.	Agency decision-making processes are used and influenced by a limited number of constituencies.
	Agency is not adaptive to the changing nature-based values and outdoor interests of broader constituencies.	Agency lacks capacity to identify, understand, engage with, and serve the needs of broader constituencies.	Constituents may have fears, concerns, or beliefs that prevent them from engaging with nature.		Lack of higher-level executive support for agency engagement with broader constituencies.
	Agency has a competitive and siloed culture that inhibits collaboration.	Agency lacks capacity to develop and implement plans that engage and serve broader constituencies.	Constituents may not recognize the threats facing fish and wildlife, their habitats, and humans, or how to engage to address the threats.	Broader constituencies do not value the benefits nature provides.	Agency governing bodies may not represent the nature-based values and outdoor interests of broader constituencies.
		Agency lacks capacity to create and sustain effective partnerships to serve broader constituencies.	Some constituents are resistant to an agency engaging and serving broader constituencies.		Lack of legislative support to engage and serve broader constituencies.
		Agency lacks expertise and knowledge to provide outdoor recreational experiences that serve broader constituencies.			Policies, practices, legal authorities, and funding restrictions limit an agency's ability to serve broader constituencies.

As the five teams worked independently to develop strategies and tactics, team leaders discovered that many of the strategies included very similar actions. These overarching actions proved consistent enough to warrant special recognition as recommendations that, if followed, would simultaneously impact numerous barriers and increase an agency's capacity to implement a host of strategies. The recommendations with broad impact are as follows:

Agency leadership and governing bodies must recognize the need for conservation agencies to adapt to changing societal conditions and demonstrate support for adaptation efforts.

Without guidance and support from leadership, an agency is unlikely to undertake the type of adaptive changes needed in response to societal trends.

Agency leadership and governing bodies need to demonstrate commitment to being more inclusive of diverse perspectives and interests in fish, wildlife, their habitats and outdoor recreation activities. An agency's public trust responsibility extends to all members of current and future generations. Leaders must set the example and expectation that the agency will engage and serve broader constituencies.

Agencies need to increase acquisition and application of social science information (stakeholder engagement, stakeholder inquiry, marketing, education, outreach, communications, economics, and evaluation) to identify, better understand, engage, and serve broader constituencies. The human dimensions of fish and wildlife conservation must be informed by science that is as robust and comprehensive as the ecological information relied upon in the past. Social science needs to have equal consideration with biological science in funding priority and decision-making.

Agencies need to commit to assessing, evaluating, and improving agency structures, processes, practices, and programs and to share lessons learned about their experiences in engaging and serving broader constituencies. Albert Einstein said, "We cannot solve today's problems with the same kind of thinking that created them." To address the challenges of the coming decades, agencies need to be strategic and adaptive.

Agencies need to commit to increased and improved partnering and collaboration to increase engagement with, and service to, broader constituencies. The demands on fish and wildlife agencies today exceed their individual capacity. There are numerous current and potential partners eager and willing to assist agencies to fulfill their missions. Agencies need to leverage their experience and relationships with current partners to broaden their reach and collective conservation impact.

Like most maps, the Relevancy Roadmap provides numerous pathways to engaging broader constituencies. Each agency will need to determine its own starting point, pace, and direction based on its unique social and ecological context and capacity. It is not likely any agency will need to address all barriers and the Roadmap should not be viewed as a to-do list that must be completed from top to bottom. To use the Roadmap most effectively, an agency should begin by setting priorities to address the most significant barrier(s) impacting their ability to engage and serve broader constituencies.

The changes agencies will need to make to engage and serve broader constituencies are most likely to come about through an adaptive management approach. Accordingly, monitoring and evaluating the outcomes of implementing strategies and tactics is an essential part of the process. The Roadmap includes recommendations for measuring outcomes as part of the implementation process.

The Relevancy Roadmap is intended to be a living document. At this time, it represents the current state of knowledge and experience presented as a series of proposed solutions that must be implemented to discover how effective these strategies and tactics are. It is not lost upon the editors and contributors that while much has been written and postulated about the topic of conservation relevancy, little practical experience has been gained to guide an agency committed to improving its policies, practices, services, and programs to serve and engage more of its constituents. To be successful, the recommendations, strategies, and tactics included in this document must be applied in real-world conditions and refined according to the results they produce.

The Relevancy Roadmap will eventually be housed on a dynamic website with related information and tools. Implementation of the Roadmap will benefit from national coordination and leadership. We recommend a team be assembled to serve in that capacity, principally to provide implementation support, serve as a convener, provide training, and lead revision.

Finally, increasing the relevancy of fish and wildlife must be built on the strong foundation laid during the past millennium by dedicated public servants, the engaged public (including hunters and anglers), and indispensable contributions of nongovernmental conservation organizations and private landowners. The fate of our treasured fish and wildlife, more than ever before, rests on our ability to collaborate as one community to garner the support and participation of a much larger swath of the public.

INTRODUCTION

North America and the world are undergoing unprecedented change. Globalization, increased mobility of people and products, increased connectivity, improved technology, urbanization, an aging population, broad socio-economic change, and climate change are all affecting the conservation of fish and wildlife. In addition, North Americans are becoming more diverse in their values, perspectives, and interests relative to fish and wildlife.

Fish and wildlife conservation is also undergoing major changes characterized by increased global stressors, interjurisdictional issues, and increasingly complex conservation challenges that require long-term management and new skill sets. Other changes include increased numbers and diversity of stakeholders with varied interests in, and values toward, fish and wildlife; declining or stagnant participation rates in hunting, angling, and trapping; and increasing numbers of people who do not have a personal connection to the natural world. These changes are causing a paradigm shift in many agencies as they adapt from an expert-authority governance model to one that is more participatory, inclusive, collaborative, systems-oriented, and adaptive to changing societal conditions.

All North Americans benefit from the conservation of fish and wildlife. Millions of people engage with conservation agencies by participating in decision-making processes and programs. Many recognize the benefits they receive from conservation, yet the vast majority of the public is unaware of, or does not value or support, conservation or conservation agencies. This lack of understanding and engagement by a large segment of society could have implications for the sustainability of fish, wildlife, and their habitats. As the percentage of people who hunt and fish declines, the base of people who are aware of, participate in, value, and support conservation must be expanded beyond traditional constituencies who can no longer disproportionately shoulder the financial burden.

Societal changes and the increasing complexities of — and pressures on — fish and wildlife conservation resulted in the Association of Fish and Wildlife Agencies formation of the Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources. The Panel made two recommendations. The first was to secure \$1.3 billion in new dedicated funding to support implementation of State Wildlife Action Plans aimed at conserving over 12,000 species of greatest conservation need. The second recommendation called for an examination of the impact of societal changes on the relevancy of fish and wildlife conservation and recommendations on how agencies and their programs might transform to engage and serve broader constituencies. Broader constituencies are individuals and groups of people who are not currently engaged in conservation or with a conservation agency. These might include people from diverse ethnicities and backgrounds, youth, the elderly, people with disabilities, new immigrants, people of varied economic or educational backgrounds, and those who live in urbanized communities with limited or no access or personal connection to fish or wildlife.

This Fish and Wildlife Relevancy Roadmap charts the beginning of a new era focused on expanding the relevance of conservation to more diverse constituencies. Relevance of fish and wildlife conservation means that conservation is essential or connected to important aspects of people's lives such as their

physical, mental, and spiritual health and well-being, clean air and water, protection from severe weather, education, and economic prosperity.

The Relevancy Roadmap builds on decades of work by agencies and their partners to engage and serve certain key constituencies and more limited efforts to engage and serve broader constituencies. As former Association of Fish and Wildlife Agencies President Virgil Moore noted, this new era in conservation is about getting “better, faster, and stronger” so agencies can build on the successes of the past. The Roadmap is a compilation of nonprescriptive recommendations based on the best available research, insight, and experience of conservation professionals. The recommendations are directed toward expanding the relevance of conservation and engaging and serving new constituencies while continuing to do so for those who are already allies.

The outdoor interests and wildlife value orientations of the public are changing. Historically, agencies have engaged principally with hunters, anglers, trappers, target shooters, select landowners, and wildlife viewers. Most state populations are diversifying and becoming more urban. A smaller proportion of the public may be aware of conservation agencies, their responsibilities, or the opportunities and benefits they provide. There are increased demands on agencies for expanded or new information, programs, and services. Expanding conservation relevance to, and value and support from, unengaged constituents is part of the evolution of agency-based fish and wildlife conservation and management.

The [Nature of Americans Report](#) (Case and Kellert 2017) and other [studies](#) show that Americans have widespread interest in nature, believe it is important to have a connection with nature, and express verbal support for conservation programs. In addition, peoples’ values toward fish and wildlife are shifting. [America’s Wildlife Values study](#) (Manfredo *et al.*, 2018) documented a substantial shift in wildlife value orientations in Western states away from utilitarian to mutualist values. They also found that there are major differences between the value orientations of agency staff and the public. The growing discipline of human dimensions of wildlife (social science applied to natural resource issues) is providing significant data and insight to agencies to help them understand and become more inclusive of a wide array of perspectives, interests, attitudes, and behaviors relative to fish and wildlife and their habitats (Jacobson and Decker 2007, 2008, 2017; annotated bibliography).

Achieving conservation management effectiveness is a never-ending process of organizational improvement. The context and conditions for fish and wildlife conservation has continually evolved since the emergence of conservation agencies in the U.S. over 100 years ago. Despite this evolution, the public trust responsibilities of those organizations remain the same. As challenges to agencies change, so must the approaches to conservation. Conservation agencies have a successful record of accomplishment and rich legacy of natural resource management. These roots give agencies a solid foundation to build upon and meet the ever-growing challenges of fish and wildlife in the future.

The specific ways agencies are getting “better, faster, and stronger” vary widely across the continent, thus no single approach or prescribed pathway is appropriate. The Roadmap, like a map showing multiple ways to get from point A to point B, provides pathways an agency might take to increase its relevancy, but it does not include every pathway available. Each agency works in a different socio-

political climate, and so each agency must determine the most appropriate pathway. The Roadmap does not provide prescriptive turn-by-turn directions, but instead offers guidance generated from the conservation community on how to overcome barriers to engaging and serving broader constituencies.

Just as there is no one path for all agencies to follow, there are no quick or easy fixes. Increasing relevancy to, and value and support from, a broad spectrum of constituencies will require innovative, thoughtful, and inclusive approaches that will take time and resources to implement. It will require courageous leadership to guide agency change to enhance or adopt new practices and will require staff at all levels to be flexible and adaptable. It will require agencies to understand the need to adapt to changing societal conditions and increase acquisition and application of social science information to identify, better understand, engage, and serve broader constituencies. Agencies must be more inclusive of diverse interests and perspectives, be open to assessing and modernizing agency processes and practices, and improve partnering, collaboration, and learning.

Agencies will continue to provide information, services, and opportunities to those who are already engaged and who provide important support for agencies and their conservation work. The importance of engaging and serving broader constituencies cannot be at the expense of leaving behind or alienating existing and long-term allies like hunters and anglers.

HOW THE RELEVANCY ROADMAP WAS DEVELOPED

In early 2018, Steve Williams and Tony Wasley, co-chairs of the Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources Relevancy Working Group, asked staff from state and federal agencies, the Association of Fish and Wildlife Agencies and the Wildlife Management Institute to help advance the Blue Ribbon Panel's second recommendation. The group reviewed the literature on fish and wildlife agency organization and change and used an adaptation of the [Open Standards for the Practice of Conservation](#) as a process to develop theories of change to overcome obstacles to broader engagement. Drawing from the literature and personal experience, the group identified a draft list of 19 barriers to engaging and serving broader constituencies.

In July 2018, with support from the Association of Fish and Wildlife Agencies and the Wildlife Management Institute, the group convened a meeting of several directors and representatives from state and federal agencies, and other conservation interests. At that meeting, participants refined the list of barriers and organized them into five categories: agency culture, agency capacity, constituent culture, constituent capacity, and political and legal constraints. The group established a coordinating team to carry out the work and prepared a [resolution](#) (Appendix C) for state fish and wildlife agency directors to support the development of a Relevancy Roadmap.

Following approval of the resolution in September 2018, five strategy teams were organized, consisting of about a dozen individuals from state, provincial, and federal agencies, nongovernmental organizations, and business to help develop the elements of the Roadmap. The teams reviewed and refined the barriers and created results chains (theories of change) that included barriers, strategies, intermediate results (steps in the process), short-term and long-term outcomes, and tactics. The teams

also compiled a list of case studies, practices, and actions that describe activities already underway by agencies to engage broader constituencies to complement descriptions of the tactics. More than 60 individuals reviewed the first draft of the Roadmap and provided comments that were incorporated into the draft Roadmap.

WHERE DOES THE RELEVANCY ROADMAP GO FROM HERE?

The Relevancy Roadmap is intended to be a living document. At this time, it represents the current state of science, knowledge, and experience presented as a series of proposed solutions that must first be attempted to discover how the barriers to increasing relevance may be reduced or overcome. It is not lost upon the editors and contributors that while much has been written and postulated about the broad topic of conservation relevancy, very little practical or experimental knowledge has been collected to guide an agency interested in improving its policies, practices, services, and programs to serve and engage more of its constituents.

To be successful, the recommendations, strategies, and tactics included in this document must be applied in real-world conditions (as many already have) and refined according to the results they produce. Thus, as the conservation community pilots and refines approaches to engaging and serving broader constituencies, the elements of the Roadmap can be validated, updated, and lessons learned broadly shared. While there is something for even a single organization to apply and benefit from in this document, success of the Roadmap will be measured by the totality of resources and commitments by natural resource management agencies and partners applied to achieving the goal of “enhancing conservation through broader engagement.”

Ultimately, the editors and contributors hope that the Roadmap will initiate a community of learning within the agencies and organizations which are in the business of increasing the quality of life through the conservation of America’s wildlife and wild places. They further hope that this effort will serve as a platform upon which more North Americans find their place in nature and join the ranks of those who fight to save the natural heritage that is their birthright.

HOW TO USE THE RELEVANCY ROADMAP

The Fish and Wildlife Relevancy Roadmap is intended to help agencies plan a course of action, set priorities, and monitor progress to engage broader constituencies. The Relevancy Roadmap is not intended to be prescriptive. Each user will need to select their own starting point, path, and speed based on their unique social-ecological setting, political constraints, readiness, and capacity for change. Increasing relevance is best thought of as a journey rather than a destination. Engaging and serving broader constituencies will take time, energy, a long-term commitment, and human and financial resources.

Every journey, however long, begins with a single step. The first step for using the Relevancy Roadmap is to decide on a starting point. The Relevancy Roadmap is organized around 19 barriers to engaging and serving broader constituencies. Not every barrier will apply to an agency and it is not likely an agency can address all barriers at once so priorities will need to be set and work sequenced. An agency's capacity for change and its socio-political environment may determine which barrier(s) can be worked on and when, and the order in which they are addressed. The experience gained, and progress made in the early stages of implementation, will benefit subsequent efforts to address other barriers.

Implementation of the Relevancy Roadmap should begin by reviewing the full list of barriers, strategies, and tactics (Appendix B) and considering which barrier(s) should be taken on first. An agency may want to begin with only one or a few barriers that may be relatively easy to overcome in order to gain experience, establish momentum, test a proof of concept, and to ease the overburden on busy staff. Alternatively, there may be a barrier that has to be addressed first because it will impede progress on other barriers. Readers of the Roadmap will note redundancy of steps or tactics across the barriers. This was deliberate so practitioners can focus on a single barrier with a complete suite of steps and tactics without having to refer back to other parts of the Roadmap.

Once the initial barrier(s) is identified, the agency should prioritize the applicable strategies if more than one strategy exists. As with selecting the initial barrier(s), choosing which strategy or strategies to pursue may require consideration of other factors such as staff capacity. The decision on which barrier(s) and strategy(ies) to take on first should be made by agency leadership, in consultation with staff that will be leading implementation. Agency leadership may also choose to reach out to affected constituents to help identify opportunities or limitations that are not readily apparent. Interactions among agency leadership, staff, and constituents may also build support for the change process. Support from staff and key stakeholders will be essential for the success of Roadmap implementation. Principles from *Adaptive Leadership* (Linsky and Heifetz 2002) and *Leading Change* (Kotter 2006) can serve as a guide for transformative change.

Once agency leadership has reached a decision on which barrier(s) and strategy(ies) to take on, staff responsible for implementation should review and discuss the strategies, steps, and tactics listed in the Roadmap. The strategies provide general direction, but the implementation team will need to consider how that direction relates to its agency's unique circumstances. The tactics are more specific, but the manner in which each agency implements them may need to be customized. There may be tactics not listed in the Roadmap that will need to be identified.

While the Relevancy Roadmap is intended to be nonprescriptive, moving sequentially through the steps for each strategy is important since they follow a theory of change. A great deal of thought went into the logical order through which each strategy should be pursued, and each step is an intermediate result that must be achieved in a sequence of results needed to bring about the ultimate change of engaging and serving broader constituencies.

As with any adaptive management process, it is important to measure progress and incorporate regular "feedback loops" into implementation of the Roadmap. Conditions or key influencers can change, leading to new opportunities or the need for new approaches. It is important to set clear objectives and monitor how the implementation process is proceeding. Before moving to the next step, results should

be carefully reviewed and adjusted as necessary (see section titled “Staying on Track: Evaluating Relevancy Efforts”).

SOME HELPFUL ROAD SIGNS

When driving across unfamiliar territory, in addition to having a Roadmap to guide your route, it helps to have the signs along the road to inform the journey. Similarly, there are other sources of information that can supplement the Relevancy Roadmap.

One key source that can provide guidance is the [Wildlife Governance Principles](#) developed by Decker *et al.* (2016) and listed in Appendix E. These principles offer a strategic approach to addressing contemporary social values relative to wildlife and changing landscapes and ecological conditions. The principles encompass the roles and responsibilities of all players in the wildlife management institution including trustees (elected and appointed officials), trust managers (conservation professionals in government and nongovernment entities), and the public. The principles combine key components of public trust thinking and good governance and address the need for agencies to do the following:

- think strategically and be adaptive,
- make evidence-based and broadly informed decisions,
- be inclusive and diverse in thinking,
- be transparent and accountable to all members of the public,
- increase capacity through collaboration.

The [Wildlife Governance Principles](#) emphasize the need for wildlife trustees and trust managers to be cognizant of the many values and benefits people associate with wildlife. They provide a framework for considering multiple perspectives and adopting processes that enable agencies to address conservation challenges that span social and ecological boundaries. These are essential components of any effort to engage and serve broader constituencies.

There is a wealth of literature that may help an agency with implementation of the Roadmap. Much of this literature is summarized in the Agency Transformation Annotated Bibliography referenced in the Resources Section in Appendix I.

STAYING ON TRACK: EVALUATING RELEVANCY EFFORTS

The genesis of the Relevancy Roadmap arose at a July 2018 meeting where a group of conservation leaders and experts drafted a conceptual map of the barriers inhibiting conservation agencies from serving and engaging broader constituencies. In preparation for that meeting, attendees who were involved with prior related efforts (e.g., [Wildlife Governance Principles](#), Agency Transformation, public trust doctrine, R3) conducted a literature review of published research and summaries of work groups and think tanks that had previously explored the challenges of increasing fish and wildlife relevancy. Absent from these summaries were a clear description of the ultimate outcome(s) of increased

relevancy, and guidance or best practices on how organizations could identify and measure the success of the ultimate or mid-term outcomes of their efforts.

This lack of outcome-based approaches to relevancy and the consequent lack of data on mid-term and ultimate effectiveness of those efforts proved a challenge to those drafting the strategies and tactics identified in this document. In contrast to ecological aspects of natural resource management, work done by agencies and organizations related to public engagement has been largely developed, conducted, and replicated uninformed by a well-designed adaptive management framework that measures and documents outcomes. That is, these programs or efforts are often designed, implemented, avoided, or discarded as a result of staff opinion or impression rather than evaluating effectiveness gleaned from a carefully constructed pilot effort, focus group, or hypothesis test.

Therefore, the editors of, and collaborators on, the Relevancy Roadmap chose to present the challenges to serving and engaging broader constituencies in a way that is easily integrated into an actionable, adaptive approach. Barriers to engaging and serving broader constituencies were organized into five categories. Specific strategies to address each barrier included a series of incremental changes or steps that must be completed to reach an outcome to reduce or eliminate the barrier. Finally, each step within a strategy included tactics that could be used to accomplish that step. The tactics are in no way a comprehensive list of actions, but rather the current “best advice” of the editors and contributors of this document. By framing the problems related to relevancy in this way, a starting point to applying a strategy is provided using an assessable framework for implementing that strategy.

Each strategy is constructed as a series of steps. These steps should be viewed as sequential or intermediate results that must be achieved to produce a desired outcome. It may be useful to think of these steps as changes that occur in an “if, then” logic flow, each change must occur before the subsequent change can fully occur. If one of the changes is not made or is not fully accomplished in a strategy’s implementation, then the changes that follow are less likely to be achieved, and the ultimate outcome of engaging and serving broader constituencies may remain unrealized.

In planning for the implementation of a strategy, it is important to review the primary types of information needed to understand the effectiveness of a strategy’s implementation. Program or process evaluation should generate two types of information; 1) information capable of indicating that the effort produced the desired effect (ultimate outcomes), and 2) information capable of identifying where an effort may have gotten off track if its ultimate outcomes were poorly achieved (mid-term outcomes).

It is beyond the scope of this document to identify all the ways these two types of information should be collected (i.e., the specific evaluation tools used to impartially document the success of strategy or tactic implementation) in the course of implementing strategies to increase relevancy. The variety of strategies and tactics contained in the Roadmap, and their variance in scope and scale, simply cannot be evaluated in a one-size-fits-all fashion. For each strategy, a combination of evaluation techniques will likely need to be applied. Examples could include, but are not limited to the following:

1. Internal or external surveys to document values, beliefs, interests of various groups, audiences, or demographics.

2. Third-party assessments of processes, procedures, and policies to determine their alignment (or lack of alignment) with broader constituent engagement.
3. Analysis of databases (i.e. license/access pass holders) or survey data to identify changes in outdoor user demographics.
4. Pre/post-strategy assessments of organizational capacity in public engagement expertise.

Determining the most effective evaluation tools and techniques for each strategic step or tactic will need to be determined by those who create an implementation plan for that strategy. Ideally, human dimension researchers or social scientists will be integrally involved in selecting the type of evaluation tools needed to prove and improve a program or process. Just as wildlife or fisheries biologists are employed by agencies to develop, implement and monitor natural resource management efforts, so too should social scientists be enlisted to assist in the development, implementation and evaluation of the public engagement efforts. If organizations wishing to apply strategies or recommendations within the Roadmap do not have access to human dimension expertise within their organization, it is strongly encouraged that these agencies secure that expertise (via new staff hires or external consultants) as a first step in implementing nearly all the strategies listed in this document.

THE RELEVANCY ROADMAP AS A FOUNDATION FOR EVALUATION

To understand how practitioners can integrate evaluation in the implementation of strategies presented in the Relevancy Roadmap, consider, as an example, the strategy addressing Barrier 2 of the Agency Capacity section. This strategy includes six steps (changes) that should occur to address the barrier of an agency's lack of capacity to identify, understand, engage with and serve the needs of broader constituencies. Like the steps within it, the strategy itself is written as a high-level change that must occur to reduce the barrier. In this case, that change is "increase capacity to identify and engage with broader constituencies". The simple logic being that if an organization does not have the resources and expertise required to engage and serve broader constituencies it should acquire that capacity before beginning to implement efforts, programs, or practices targeted at those constituents. If this is not done first, the agency's relevancy efforts will be limited in their design, delivery, and effectiveness. To remove the barrier, the change that must occur in the system is that the agency increases its capacity.

By considering the strategy and the steps within it as statements of change, practitioners are presented with the opportunity to view each step as a hypothesis that must be validated. For example, consider Step 1, "Commit existing or acquire new resources to gather social science data or conduct new research to identify and better understand agency constituents' interests." This step not only informs the practitioner on what should be done first to implement the strategy, but it also identifies what must be accomplished before step two is taken. The degree to which this first step has been accomplished should be monitored and evaluated. During implementation, if the agency can determine if needed capacity changed, then data will be available to determine if the strategy is on track or if it drifted off course at this particular step.

To evaluate Step 1 in this strategy, the practitioner must specifically determine to what degree "new resources" have been committed and if they are sufficient to move forward at the time this step was

implemented. An objective for this step could be written as *“by fiscal year 2021, 100% of existing or new resources needed to conduct social science research have been acquired, committed or allocated”*. This statement denotes the indicator that can be tracked to determine the degree to which this step was completed. In this case, that indicator is the actual percent of resources that were acquired, committed or allocated. If only 50% of the needed resources were acquired, subsequent steps in the strategy will likely be impacted. The limited success of this step may prove to be a critical factor in the degree to which the entire strategy was, or was not, effective. But if 100% of the needed resources were acquired after Step 1 and the strategy still only achieved limited success, then it may be necessary to make adjustments.

Those using the Roadmap will need to draft an implementation plan for their selected strategies. While drafting the plan, measurable objectives and their associated indicators should be identified. The plan should also layout how monitoring of the objectives and indicators will be performed. Human dimension researchers or those trained in the social sciences should be integrally involved in this process.

When implementing the Roadmap, practitioners should think of their work as a pilot test. The approach used will likely need to be adjusted in real time to adapt to the current fiscal, political, cultural and agency environments. Evaluating progress in a strategy’s implementation at each step will allow practitioners to determine accomplishments and identify where an effort may have gotten off track. These data will help an agency make informed decisions on how to modify, scale, replicate, and increase the effectiveness of their efforts. If the natural resource management community commits to outcome-based application of their relevancy efforts, the community as a whole may begin to refine its approaches to effective strategies that engage and serve broader constituencies. A key premise of the Roadmap is that agencies will share successes, challenges and mistakes with the community. Systematic and effective evaluation of the implementation processes and outcomes will be critical to the success of agencies engaging and serving broader constituencies. If this occurs, the next iteration of the Roadmap will be less of a compendium of hypotheses and more of a catalogue of proven strategies.

AGENCY CULTURE

Barriers:

1. Agency culture and values do not align with nature-based values and outdoor interests of broader constituencies.
2. Agency is not adaptive to the changing nature-based values and outdoor interests of broader constituencies.
3. Agency has a competitive and siloed culture that inhibits collaboration.

BARRIER 1: AGENCY CULTURE AND VALUES DO NOT ALIGN WITH NATURE-BASED VALUES AND OUTDOOR INTERESTS OF BROADER CONSTITUENCIES.

According to the [America's Wildlife Values](#) study (Manfredo *et al.*, 2018), wildlife value orientations for fish and wildlife agency staff often differ from those of constituents. In the study, 68% of state fish and wildlife agency staff have traditionalist value orientations (i.e., wildlife should be used and managed for the benefit of people), compared to 30% for the public. Thirty-four percent of the public have mutualist value orientations (i.e., see wildlife as part of their extended social network), whereas just 8% of state fish and wildlife agency staff do. From 2004 to 2018, there was a 6% decrease in traditionalist and a 5% increase in mutualist value orientations for the public in western states. Value orientations of the public can vary markedly between states. This shift in wildlife value orientations and the disparity between public and agency values can create a cultural rift and may contribute to some constituencies not seeing their priorities represented in agency work.

Changes in governance may be necessary to help conservation institutions adapt to changes in the socio-political environment (Jacobson and Decker, 2008). The need for change is becoming increasingly urgent and new and different conversations about conservation are needed to meet public trust obligations in the face of persistent uncertainty about the future effectiveness and relevance of wildlife conservation (Decker *et al.* 2016: 294). To achieve this, agencies will need to be adaptable, accurately evaluate current work priorities and situations, and be willing to make adjustments or realignments.

STRATEGY 1: COMMIT TO RECRUIT AND RETAIN DIVERSE VALUES AND PERSPECTIVES WITHIN THE AGENCY WORKFORCE.

A workforce that is more diverse and inclusive and made up of staff of varying ages, gender identities, races, cultural backgrounds, interests, and experiences would be more reflective of a state's or

province's demographics which could benefit an agency. It could result in organizational innovation, a richer talent pool, improved employee performance, enhanced organizational brand, and lead to a better understanding of an organization's constituents. It would also likely change agency culture since more diverse perspectives, wildlife value orientations, and outdoor experiences would be represented and could result in more inclusive and better decisions, leading to increased success and support for the organization.

STEP 1: Leadership demonstrates support for a diverse and inclusive workforce.

1. Tactic: Create policies and working environments that encourage and support diversity and inclusion.

Policies and work environments that support diversity and inclusion and allow opportunities for various viewpoints, values, and ideas to be expressed equally, could lead to cultural changes that better align an agency with its constituents. This includes a recognition that the majority of constituents may value and pursue outdoor recreation in different ways than most agency staff. Increased diversity and inclusion is not just about numbers, but includes fostering a welcoming environment where differences are recognized, valued, and respected. Increased diversity and inclusion can help an agency advance its goals and — when embedded throughout the agency — can improve all facets of agency work including support, field, science, and policy programs and operations.

DIVERSITY AND INCLUSION STRATEGIC PLAN

Texas Parks and Wildlife Department created a diversity and inclusion strategic plan with three pillars: recruitment, retention, and education and outreach. https://tpwd.texas.gov/publications/pwdpubs/media/pwd_rp_eo100_1952.pdf

2. Tactic: Reward staff for participating in events and outreach efforts that improve diversity in the workplace.

People respond to incentives and meaningful rewards. Staff workloads should be adjusted to allow more time for activities that increase diversity recruitment, provide a welcoming environment, support networking with diverse audiences, and improve overall diversity in the workplace. Staff who participate in these activities should be acknowledged, encouraged, and rewarded. Examples of incentives could include an employee recognition program, extra leave, financial incentives, etc.

EMPLOYEE RECOGNITION

Texas Parks and Wildlife Department has an employee recognition award program that annually recognizes an employee who develops innovative methods for increasing and valuing diversity and inclusion through wide-ranging activities.

3. Tactic: Create programs that encourage underrepresented groups to become wildlife professionals.

Some underrepresented groups are not aware of career opportunities in fish and wildlife conservation, or the training needed to enter the field. Others may be aware of conservation careers but do not see themselves represented and therefore do not consider this career option. Improving knowledge of natural

resource careers should start at an early age. Agency investments in K-12 school curricula, as well as educational opportunities for families outside the school system, are important tools for introducing the next generation to the conservation field. Similarly, investments of time and resources in internships, college-readiness programs, and mentoring could encourage diverse audiences to enter the conservation field in such roles as fish or wildlife biologists, conservation officers, human dimension specialists, educators, outdoor skill instructors, or natural resource communications professionals. Partnering with universities, particularly those that serve underrepresented groups, could lead to a more diverse pipeline of candidates for recruitment. Some universities such as Colorado State University have created a minor in cultural and natural heritage that is available to natural resources students.

STEP 2: Change hiring practices to attract and recruit more diverse staff at all levels.

1. Tactic: Adopt policies and procedures that ensure diverse selection committees.
A diverse selection or interview committee can lead to increased diversity of new hires ([Gorman](#), 2005; [Rice and Barth](#), 2015; [Rice and Greenlee](#), 2018). To increase the diversity of selection committees, it may be necessary to work with external organizations that have staff with greater ethnic, race, and age diversity or who can provide different perspectives and backgrounds. Including an outside perspective could help ensure hiring committees consider individuals with diverse backgrounds or nature-based values and outdoor interests that may be missing from an agency's workforce.
2. Tactic: Adopt policies and procedures to ensure job recruitments are distributed broadly and are not perceived as preferentially targeting narrow categories.
Where and how a job opening is posted can inadvertently send a message about the receptivity of an agency to recruit individuals with diverse cultures and backgrounds. Broadly distributing hiring opportunities and being open to new and creative ways of reaching prospective candidates (e.g., through social media, student groups, diverse partner organizations) can increase the diversity of the applicant pool. Progress may be slow at first, but as partnerships, mentoring programs, and career-building programs take hold, candidate pools should become more diverse. The way in which job descriptions are written can affect perceptions, too. A job description that implies that preference will be given to those who hunt and fish could limit the applicant pool and make those who do not hunt or fish feel unwelcome. Similarly, overly restrictive job qualifications (e.g., all positions require a biology degree) can limit applicant pools, leaving out some highly qualified candidates. Job descriptions should be closely aligned with the desired knowledge, skills, and abilities sought for the position and include the agency's vision, mission, and values.

DIVERSITY JOINT VENTURE

The Diversity Joint Venture for Conservation Careers is a partnership of federal and state agencies, universities, nongovernmental organizations, foundations, and professional societies that are working together to increase the number of women and people of color in the conservation workforce.
<https://diversityinconservation>

3. Tactic: Use best management practices to reduce bias in hiring practices.

Best practices can be used to help ensure that bias is reduced or eliminated in the hiring process. Best practices should address all facets of the recruitment process including development of job descriptions, how and where job opportunities are posted, questions used during the interview process, the composition of interview committees, and how interviews are conducted. Involving staff across agency boundaries or partners outside the agency in the hiring process could foster a communitywide commitment to workplace diversity and harness expertise in diversity and inclusion. An agency may need to develop their own best practices or could use existing resources such as the hiring [toolkit](#) developed by the Conservation Lands Foundation.

WELCOMING CULTURE

Jones and Solomon (2019) identify challenges to women conservation leaders as well as support structures that agencies and individuals can implement to overcome those challenges.

STEP 3: Create an environment that is inclusive and supports diverse opinions and voices in decision-making at all levels.

1. Tactic: Adopt policies and practices that value and support the needs of all staff.

Creating an environment that is welcoming of different perspectives, recognizes the diverse needs of staff, and provides opportunities for personal and professional growth can improve performance and employee retention and morale. Being sensitive to new voices and cultural experiences and welcoming those perspectives are key to retaining a diverse and inclusive workforce. Many agencies have restrictions on monetary rewards, however there is evidence that other types of recognition and benefits can also motivate employees, particularly those who are younger. Providing flexible work environments, instituting policies that support employees' needs, prioritizing relationship-building, and providing opportunities to share cultural differences can help create a cohesive and positive work environment. These types of practices can improve recruitment and retention of staff and help earn the agency a reputation of being a good place to work.

FLEXIBLE POLICY

The Nevada Department of Wildlife instituted a policy that allows a parent to bring an infant under the age of one to the office on a daily basis to provide parents with the opportunity to return to work yet continue to care for their newborn. The policy includes steps to increase work efficiency, ensure that coworkers are not impacted and provide parents with a nursing room in the building.

2. Tactic: Encourage and support staff expressing diverse opinions and solving problems creatively and inclusively.

Expressing views that are outside the current cultural norm can be difficult in some agencies. Staff should feel comfortable and welcome to express opinions or ideas that agency culture may suppress. Managers, supervisors, and agency leaders should encourage and support individuals who think outside the box or question long-standing practices or programs that may need to evolve to meet current needs.

3. Tactic: Measure staff satisfaction and adapt policies and practices accordingly.

An agency should measure how well it is meeting its goals for workforce diversity and adjust accordingly if goals are not being met. An employee satisfaction survey could be a useful tool to gather information to improve agency culture. Measures should be relatively easy to collect, transparent and used to continually review and adjust policies and practices as needed.

STRATEGY 2: ADOPT A CLEAR, DURABLE VISION THAT INCLUDES NATURE-BASED VALUES OF BROADER CONSTITUENCIES THAT ARE EMBRACED BY STAFF.

An agency with a clear vision that reflects a diversity of nature-based values will ensure long-term durability and relevance. Communicating about a North Star or desired future condition for the organization that is more inclusive will invite a broader spectrum of constituents to appreciate and support conservation and the work of the agency. Reflecting this in the organization's vision, mission, guiding principles, strategic plan, and agency priorities are ways to demonstrate commitment to serving broader constituencies.

STEP 1: Develop, clarify and/or redefine agency's guiding principles to capture the full scope of public trust responsibilities and constituency needs and interests.

1. Tactic: Make engaging and serving members of the public a priority.

Agency leadership should promote and prioritize work to develop, redefine, or clarify guiding principles, as well as mission and vision statements to emphasize public trust responsibilities that serve all members of the public. Diverse teams should lead these efforts, drawing from the field of organizational change and social science, and informed by science and technical expertise. [Wildlife Governance Principles](#) (Decker *et al.*, 2016) should be incorporated as appropriate. As part of the process, an agency should conduct a situation analysis or needs assessment that includes internal and external audiences to help determine what changes are needed.

2. Tactic: Review and modify agency brand to ensure it is inclusive of nature-based values of broader constituencies.

The labels, terms, and structures an agency uses convey messages to the public about whom the agency serves and prioritizes. Agency labels and organizational structures may not adequately convey the breadth of agency work or activities. Images and words used in logos, publications, or marketing materials contribute to public perceptions about which constituents are served by an agency and its priorities. An

ENGAGING COMMUNITIES

The U.S. Fish and Wildlife Service has created Standards of Excellence (<https://www.fws.gov/urban/soe.php>) for urban refuges. Urban refuge managers and visitor specialists are expected to conduct or contract social science inquiry about the needs of, and then engage, the local community.

BRANDING

The Montana Department of Fish, Wildlife and Parks recently developed a comprehensive branding guidebook <http://fwp.mt.gov/brandlibrary/> focused on demonstrating the full scope of work in which the agency engages.

agency's brand should make clear its purpose, cause or beliefs, or what Simon Sinek described as the "why" (see Simon Sinek's [TED Talk](#)).

3. Tactic: Provide training on the full scope of public trust responsibilities to all staff.
Not all staff may be aware of the full scope of an agency's public trust responsibilities. As part of an agency's orientation and onboarding process, new employees should be trained to understand the full breadth of the agency mission and their responsibilities under the public trust doctrine. This can help institutionalize and expand recognition of all public trust responsibilities. [Smith \(2011\)](#) provides a foundation for this. Additionally, continuing education and mentoring opportunities such as detail assignments to other programs within the agency can help staff become aware and appreciative of the full complement of agency responsibilities. Informational meetings and workshops where a variety of programs are described and where staff are exposed to other work within the agency is another way to highlight the agency's full public trust responsibilities.

STEP 2: Revise or develop long-term planning processes that ensure a durable commitment to serving broader constituencies.

1. Tactic: Allocate resources and staff time to meet with new constituencies to better understand their needs and perspectives and how best the agency can meet those needs.
Making outreach and attendance at community events that reach new constituencies a priority, and incorporating that work into performance plans, will ensure there is a commitment to include broader community values into routine work. Participation in community-oriented meetings can help an agency network with community leaders and gain a greater understanding of community needs.
2. Tactic: Evaluate how existing work aligns with and contributes to the agency's commitment to serving broader constituencies.
A situation assessment of how the agency currently prioritizes resources and staff time can help an agency determine whether changes are necessary to more effectively engage with broader constituencies. The analysis may show that the agency is already highly involved in work that serves broader constituencies or identify gaps or opportunities to improve the agency's reach.
3. Tactic: Create or revise long-term planning processes to include a durable commitment to serving broader constituencies.
Once an agency reviews, revises, and modifies (if necessary)

LONG-TERM PLANNING

The Montana Department of Fish, Wildlife and Parks recently launched the '15 and Forward initiative <http://fwp.mt.gov/doingBusiness/insideFwp/visionAndGuide/> to update the agency's vision and goals for the next 10 years. Public listening sessions included input from broader constituencies. The resulting vision and guide continue its strong commitment to hunting, fishing, trapping, state park visitation, and other outdoor recreation as well as broadening services and communications to reach more diverse groups of outdoor enthusiasts and supporters.

its vision, mission, and guiding principles, it can begin reviewing other aspects of the organization, including its planning processes. Ultimately, these planning processes should identify priorities that support and create a long-term commitment to serving broader constituencies.

STEP 3: Communicate the agency's commitment to serving broader constituencies internally and externally.

1. Tactic: Share insights gained through research and meetings with new constituencies through all levels of the agency.

Actively sharing insights or knowledge about new audiences gained through meetings, surveys, research, and other means will help ensure agency staff have the information needed to understand, connect, and serve broader constituencies. Information can be disseminated through training, agency communications and through shared storytelling and learning.

2. Tactic: Promote a brand demonstrating that the agency manages all wildlife for all members of the public.

The agency should promote a brand that clearly demonstrates its commitment to serve all members of the public. In some cases, this may require an agency to review its brand or initiate a rebranding exercise to ensure the full scope of its work and engagement with broader constituencies is communicated. While rebranding can be time-consuming, expensive, and difficult for an agency to undertake, a well-thought out brand with an accompanying strategy can provide an agency with many benefits including a demonstration and commitment to serving all constituencies.

STEP 4: Commit to serve broader constituencies through the implementation of long-term planning, new project development, and everyday work plans:

1. Tactic: Staff conduct work that aligns with the agency's commitment to serve broader constituencies.

Staff should receive training to help them understand how to adapt their work to serve broader constituencies. Training should include techniques to improve communication and networking, suggestions on incorporating cultural appropriateness into discussions, and strategies for building effective partnerships. Supervisors should set expectations that all staff should seek opportunities to address the needs and understand the values of broader constituencies. Priorities identified in planning processes and work plans should reflect the desire to serve broader constituencies. Regular engagement with community groups and their leaders provides the opportunity for meeting shared goals and developing new partnerships.

2. Tactic: Provide staff opportunities to creatively develop new projects that could serve broader constituencies.

Staff should be encouraged to network with organizations that can reach new audiences or have a culture that is inclusive and supportive of reaching broader constituencies. Agency staff who have successfully built new partnerships should be encouraged to share their experiences. The

elements of successful projects or partnerships should be identified, communicated, and used for new initiatives intended to reach broader constituencies.

3. Tactic: Evaluate the effectiveness of long-term planning processes and adjust as needed to ensure a durable commitment to serving broader constituencies.
Planning processes should identify metrics that are easy to collect, analyze, and report so that planning processes can be monitored and assessed. If planning processes are not effectively engaging broader constituencies, then they should be adjusted or adapted. Any lessons learned should be communicated.

STRATEGY 3: PRIORITIZE THE DEVELOPMENT OF PARTNERSHIPS THAT ENGAGE BROADER CONSTITUENCIES.

Historically, agencies have successfully worked with other state or provincial, federal, and local governments, as well as private organizations, to conserve fish and wildlife. Engaging with new partners, including those that fall outside of the traditional conservation community, could help an agency serve and engage broader constituencies. Interaction with nontraditional organizations such as tourism agencies, outdoor recreation groups, nongovernmental organizations, education and healthcare advocates, and affinity groups can provide a means to broaden support for fish and wildlife agencies and conservation. Social service or interest groups concerned with environmental justice, open space, air quality, water quantity and quality, and food security also provide unique opportunities to develop conservation partnerships. As society becomes more urban and diverse, engagement with various communities or interest groups will be necessary to connect agencies to broader constituencies.

STEP 1: Gain an understanding of and appreciation for the values and interests of broader constituencies.

1. Tactic: Use social science to understand the values and needs of broader constituencies through application of existing research and engagement with partners.
Building new and effective partnerships requires an understanding of the values and needs of constituencies outside the typical conservation setting. By actively engaging with broader groups, agencies can better understand their issues and priorities. This could be accomplished by establishing informal advisory councils or working groups, hosting public forums, and attending local community events. Creating forums where all sectors (both traditional and broader) can participate and be valued, is an example of a way agencies can develop a more comprehensive understanding of a community's values and needs.

PARTNERS MEETING

The Missouri Department of Conservation hosts an annual partners meeting. This event is a one-stop shop for conservation partners to learn about the agency's strategic plan, key issues, and priorities and serves as a forum for the public to ask questions and provide feedback to help guide conservation work. While some issues or topics are selected by agency staff, a survey of past and newly invited participants is used to help generate and prioritize a list of issues and topics to cover at the meeting.

2. Tactic: Determine the level of participation desired by constituents and the ability of the agency to meet those expectations.

Traditional approaches to stakeholder engagement such as public hearings may be adequate for some constituencies but not for others. Stakeholders should be given an opportunity to provide input in a way that meets their needs and expectations. Their contributions should be acknowledged and given consideration in the decision-making process. It is important for agencies to consider stakeholders' desired level of participation and influence in the decision-making process and for agencies to determine what level can be provided. The International Association of Public Participation has a [Public Participation Spectrum](#) that can be used to assist with determining the level of participation and expectations for stakeholder engagement.

STEP 2: Engage in meaningful partnerships with diverse constituencies.

1. Tactic: Allocate staff and resources to broader engagement.

Building and maintaining effective partnerships takes time, leadership, commitment, effort, and funding. Most agency staff face heavy workloads and it takes additional time to engage with broader constituencies. Adjustment of work priorities, allocation of new resources, and refinement of performance or work plans may be necessary to engage in partnerships to reach broader constituencies.

2. Tactic: Develop and cultivate new partnerships.

Effective partnerships require personal connection and trust-building. Regular formal and informal interactions are essential to developing personal connections with partners and their networks. Regular connections can build a foundation where trust, competence, honesty, transparency, and openness to new and different ideas can take hold. Jon Gordon, a best-selling author on inspiring organizations has identified [11 ways to build trust](#). The [Partnership Impact Model](#) is another resource that can help guide how to bring together diverse stakeholders to advance shared interests for long-term, systems-level social change.

3. Tactic: Evaluate partnerships and adjust as needed to better reflect changing societal values and conservation goals of the agency.

It is important to understand, measure, and communicate the strength of a partnership and the contributions of its members. The [Partnership Impact Evaluation Guide](#) includes seven steps for evaluating partnership impact. The Nature Conservancy's [Conservation Partnership Center](#) provides guidance on how to measure partnership health. The World Wildlife Fund's [Partnership Toolbox](#) includes a monitoring tool that can be used to compare differences in partnership perception among organizations, examine how a partnership has changed over time, and compare differences between an existing and desired partnership.

BARRIER 2: AGENCY IS NOT ADAPTIVE TO THE CHANGING NATURE-BASED VALUES AND OUTDOOR INTERESTS OF BROADER CONSTITUENCIES.

Research suggests that wildlife value orientations of Americans are changing (Manfredo *et al.*, 2018). Adapting to these changes is necessary to successfully manage all wildlife for all members of the public. It can be challenging for an agency to adapt when constrained by long-standing institutional policies, procedures, and traditions. To successfully change, an agency will need new tools and competencies to improve its adaptability to changing societal values.

STRATEGY: DEVELOP PRACTICES AND PROCESSES THAT ARE RESPONSIVE TO CHANGING NATURE-BASED VALUES OF CONSTITUENTS.

A key characteristic of an adaptable institution is its ability to continually learn and re-evaluate system understanding. This often requires an agency to find the sweet spot between implementation and revision of policies and procedures. Institutional transformation begins when adaptive processes are formally internalized as part of operations. Innovation, validating assumptions, and developing skills for reflection can help make an organization adaptive and flexible (Bainbridge *et al.*, 2000).

STEP 1: Investigate current trends in constituent nature-based values and commit to serving all constituents.

1. Tactic: Use information and research on the nature-based values of constituents to understand current trends.
Social science research and surveys can help an agency better understand the current values of constituents and any trends. Information should be available at the needed jurisdictional scale. If it is not available, new research should be conducted at the appropriate state, regional, or local scale.
2. Tactic: Engage with local community leaders and underserved groups to learn what is important to them.
Listening to local communities and understanding constituent values and needs are critical steps to developing an adaptable and flexible institution. Conducting public forums and listening sessions can inform an agency's understanding of subpopulations or affinity groups that make up broader constituencies. Once identified, commonalities among disparate groups can be identified, leading to new opportunities for partnerships. Academic institutions often have expertise and experience with understanding the needs of underserved groups.
3. Tactic: Educate staff regarding the nature-based values of constituents.
Agency responsiveness and flexibility can be enhanced through continuing education and training, particularly when staff are challenged with new approaches. Developing a "best available science" library could be a helpful way for the agency to document current understanding and disseminate information regarding the nature-based values of constituents.

Academic and community leaders should be invited to help inform agency staff of shifting trends and public opinion and ways in which new audiences can be engaged.

STEP 2: Conduct an assessment of agency practices and processes to understand if they are adapting to societal change.

1. Tactic: Assess how adaptable the agency is in processes and practices, including staff adaptability, and use process improvement tools to address any deficiencies.

Many agencies have few structures and processes to evaluate their ability to adapt to changing values. Processes that could be evaluated include the extent to which an agency identifies and responds to customer needs, the efficiency of its financial or internal systems, and how well an agency delivers services and information to its constituents. Agencies may need to look to the business sector to find ways to evaluate their adaptability. The [Malcolm Baldrige Assessment](#) is a tool used to improve the competitiveness and performance of an organization and could be used to examine an agency's adaptiveness, demonstrated through characteristics such as staff flexibility and openness to changing environments.

SURVEY

The Missouri Department of Conservation uses a standardized questionnaire to survey public opinion about conservation and participation in outdoor recreation.

STEP 3: Incorporate needed improvements to practices and processes that increase responsiveness to changing nature-based values.

1. Tactic: Create a culture of adaptability to changing societal values.

An agency should be responsive and committed to maintaining current partnerships but also identify modifications that would make the agency more adaptable. Committing, at all levels, to increasing the adaptability of the agency will help create a more resilient environment that will help the agency respond to changing societal values. Responsiveness and flexibility can be enhanced by using new and creative ways to disseminate information and deliver new programming and materials based on current needs. An adaptable agency could develop mobile apps that younger audiences can use to access and participate in the outdoors, rather than relying on traditional means such as the agency magazine.

2. Tactic: Support and reward staff who make practices and processes more adaptable to reach broader constituencies.

Agency staff who serve broader constituencies should be supported and rewarded. Staff can learn from and network with organizations who serve diverse constituencies through job shadowing or internship programs. Agency teams that build new partnerships should share their experiences with others across the agency. Staff that develop creative ways to connect with new groups should be acknowledged and supported even when outcome targets are not achieved. If monetary rewards are not feasible, other rewards such as peer recognition, work environment improvements, and celebrating successes by hosting fun group activities can make employees feel acknowledged, appreciated, and rewarded.

3. Tactic: Conduct surveys, both internally and externally, to gauge the responsiveness of the agency to external change.

Data from internal and external surveys could help an agency adjust practices to meet changing environments. It is important to gain the perspective of agency staff along with broader constituencies to understand whether there is a disparity in perceptions.

BARRIER 3: AGENCY HAS A COMPETITIVE AND SILOED CULTURE THAT INHIBITS COLLABORATION.

Agencies are less effective when organizational or institutional divisions, competition, and mistrust impede collaboration and teamwork. These barriers may exist within the agency or between agencies. Real or perceived competition for scarce resources may undermine an agency's ability to effectively and efficiently deliver conservation. A siloed culture can create a positive feedback loop. As an agency becomes more siloed, the degree of mistrust, competition, and miscommunication can increase, reinforcing the siloed culture. Intentionally networking and collaborating across agency and department lines will improve efficiency and help the agency serve broader constituencies. Creating a culture of open communication, transparency and teamwork will help staff at all levels collaborate and work more as a team than as competitors.

STRATEGY 1: VALUE AND COMMIT TO COLLABORATION ACROSS INTERNAL ORGANIZATIONAL BOUNDARIES.

How an agency is organized can affect how staff from various sections, programs, or divisions work together. Organizational boundaries are important for distributing workloads, responsibilities, and accountability across agencies, but they can lead to competition between work units that can inhibit teamwork. In deeply siloed or competitive workplaces, the flow of information can be restricted, which can affect responsiveness and collaboration. It is important for agency staff to develop and maintain relationships across organizational boundaries so there can be shared purpose. Promoting an appreciation of the roles and responsibilities of all agency units and an understanding of how the work of each unit contributes to the agency's mission can help spur teamwork and collaboration across the organization.

STEP 1: Provide staff with a comprehensive understanding of the responsibilities across the entire organization.

1. Tactic: Create opportunities for new and existing employees to develop an understanding of all the work the agency engages in.

When onboarding new employees, it is important that there is an understanding of the comprehensive nature of the agency's work. Providing an understanding of the role and importance of individual units to the agency's mission will allow new staff to see their role and contributions as part of a collaborative team. One way to accomplish agencywide cohesion is by encouraging new staff to spend time meeting with staff across jurisdictional boundaries so they can become familiar with their projects and programs. It is equally important to ensure that

existing staff are also aware of all the work the agency does and how that work contributes to the whole. As agencies adapt to changing external environments, all staff should be made aware of these changes. An agency could accomplish this by using annual coordination meetings, agency newsletters, training, and internal team communications to inform staff of changes and how those changes affect the agency's work. Job swaps, job shadowing, work details, and short-term assignments outside of an individual's usual work duties could help expand staff awareness of agency work, provide new skills, and spur collaboration.

STEP 2: Identify and emphasize shared objectives across organizational boundaries.

1. Tactic: Identify areas of collaboration within the agency.
There are many opportunities in which an agency could involve staff from multiple divisions or internal groups to do agency work. Examples include working on a plan for a wildlife management area that includes recreational opportunities for broader constituencies, developing publications and educational programs targeted at new audiences, or involving staff from multiple divisions to work on a project that normally is done by a single division.
2. Tactic: Provide training in effective collaborations and teamwork.
Training may be needed for staff with little experience or understanding of the benefits of collaboration or working as part of a team. Training in effective communication, emotional intelligence, trust-building, conflict resolution, and goal setting could help staff acquire skills necessary to build effective teams and collaborate across jurisdictional boundaries.
3. Tactic: Promote and provide opportunities to collaborate across work units.
Opportunities for collaboration through shared projects or internal working groups or teams can provide personal growth opportunities and skill development and lead to better work products. A supportive environment for cross-collaboration would promote teamwork that could lead to new ideas or approaches that may help the agency expand its reach to broader constituencies.

STEP 3: Increase support and expectations for staff to work across all divisions and value the broader purpose of the agency.

1. Tactic: Promote collaborative engagement across all organizational boundaries.
To promote cross-collaboration and teamwork, agency leaders should set high expectations and clear goals, and tie work to performance evaluations. Staff who collaborate should receive recognition or other rewards. Managers and supervisors should regularly reinforce the need for collaboration and celebrate new and successful internal partnerships.
2. Tactic: Prioritize resource allocation decisions that reflect cross-work unit collaborations.
Projects and activities that incorporate multiple work units and use teams should be included as part of the evaluation criteria when making resource allocation decisions. An agency could use interdivisional work groups to seek collaborative opportunities, provide funding recommendations, and provide support for internal partnerships.

STRATEGY 2: VALUE AND COMMIT TO COLLABORATING WITH OTHER ORGANIZATIONS.

Collaborative partnerships can increase the effectiveness of conservation. It can be easy to fall back to regulatory or jurisdictional boundaries that inhibit collaboration with other agencies similarly tasked with conservation work. Two agencies working in silos and competing rather than collaborating can be an obstacle to delivering conservation that benefits broader constituencies.

STEP 1: Investigate how the work of other agencies and organizations is relevant to the agency's mission.

1. Tactic: Identify and understand how other organizations contribute to the agency's mission and conservation goals.
The agency should identify new potential partners that support and could help the agency achieve its mission and conservation goals. This could be accomplished by engaging with organizations that serve broader constituencies, conducting surveys, holding forums/listening sessions, and soliciting feedback from the public by other means. A key component of this tactic is to be strategic in pursuing partnerships that offer the greatest benefits, since building partnerships may take critical time and resources away from other priorities. Development of a database that lists potential organizations and agencies, their expertise, and alignment with the agency's mission can help an agency prioritize. Similarly, compiling a history of past partnerships with external organizations, and including case studies illustrating why those partnerships were (or were not) successful can provide learning opportunities and prevent repeat mistakes. Engaging staff at all levels within the agency will help build and sustain collaborations.

STEP 2: Establish effective partnerships with other agencies and organizations to accomplish shared conservation goals.

1. Tactic: Set expectations and support staff to work in collaborative conservation partnerships.
Engagement with external organizations should be a clear expectation for staff, and reflected in the agency's goals, expected outcomes, and work plans. The agency and managers can support staff through funding, access to resources, prioritization of work, and through direct and tacit support from supervisors and leaders. Staff should be rewarded in performance reviews and recognized by their peers for building and maintaining collaborative conservation partnerships with external organizations.
2. Tactic: Create new or support existing collaborative joint working groups with partners.
Creating new steering committees or management groups or supporting existing ones can help an agency develop strong relationships with diverse partners and provide a forum to discuss emerging issues or conservation needs. This approach was used by many states to develop and implement their [State Wildlife Action Plan](#). Durable relationships with diverse partners can greatly increase the ability of an agency to deliver conservation, tackle challenges, and garner support.

STEP 3: Maintain and enhance ongoing partnerships and collaborations with external agencies and organizations.

1. Tactic: Using best practices, maintain effective conservation partnerships.

Effective partnerships require commitments of agency and partner time, resources, and application of tested principles and practices. Strong partnerships do not happen by accident, rather, they require hard work and commitment. The U.S. Forest Service has a helpful [resource](#) for building and maintaining effective partnerships that includes nine keys to success.

2. Tactic: Evaluate effectiveness of partnerships and adjust as needed.

Partnerships should be regularly evaluated to determine whether goals and expected outcomes are being met. Resources such as One Tam's [Partnership Impact Evaluation Guide](#), The Nature Conservancy's [Conservation Partnership Center](#), and the World Wildlife Fund's [Partnership Toolbox](#) can be used to set up a process to measure and evaluate partnerships.

AGENCY CAPACITY

Barriers:

1. Agency lacks sufficient and diverse funding to provide programs and services to broader constituencies.
2. Agency lacks capacity (expertise, staffing, resources) to identify, understand, engage with, and serve the needs of broader constituencies.
3. Agency lacks capacity to develop and implement plans that engage and serve broader constituencies.
4. Agency lacks capacity to create and sustain effective partnerships to serve broader constituencies.
5. Agency lacks expertise and knowledge to provide outdoor recreational experiences that serve broader constituencies.

BARRIER 1: AGENCY LACKS SUFFICIENT AND DIVERSE FUNDING TO PROVIDE PROGRAMS AND SERVICES TO BROADER CONSTITUENCIES.

Most agencies continue to seek but still lack sufficient and diverse funding to meet their mandate. Funding from sources not tied to hunting and fishing fees (e.g., Pittman-Robertson and Dingell-Johnson acts) is needed to design, test, implement and evaluate programs and services that meet the needs of broader and underserved constituencies.

STRATEGY: MODIFY AGENCY FUNDING MODELS TO PROVIDE SUFFICIENT SUPPORT FOR DIVERSE PROGRAMS AND SERVICES.

To address the lack of sufficient and diverse funding, agencies can modify their existing agency funding model so that it includes funding that can support programs and services for broader constituencies. This can include gaining an understanding of current legal authorities and constraints as well as formal and informal policies and practices related to the allocation of funding. Agencies can explore new approaches to acquire additional and diverse sources of funding and develop plans on how to acquire and effectively use new funding to provide programs and services to broader constituencies.

STEP 1: Document and communicate how existing funding models and formal and informal policies might be limiting the agency's ability to serve and engage all constituents.

1. Tactic: Review and document the formal legal authorities and limits of current funding sources (federal, state, provincial, and others).
A review should be conducted that describes the authorities and constraints of current funding sources. The review should be comprehensive and include all sources of funding including federal, state, provincial, and other sources, such as funding from voluntary or mandatory mitigation, foundations, or private conservation groups.
2. Tactic: Review and document formal and informal policies and practices regarding acquisition and allocation of funding.
There may be formal or informal policies and practices that govern how funding is secured and allocated. A review should focus on identifying outdated or unintentional constraints.
3. Tactic: Communicate to staff, stakeholders, and members of the public about how the agency is currently funded and how that funding is used.
It is critical to communicate to staff and the public how the agency is currently funded and how that funding is used to achieve the agency's mission. There may be a lack of understanding, misinformation, or myths associated with an agency's funding that should be addressed through strategic communications.
4. Tactic: Identify gaps in funding.
Identifying gaps in funding to meet large goals (e.g., engaging and serving broader constituencies) will help determine specific needs and can be used to advocate for and secure sufficient and more diverse funding that will improve programs and services to all constituents.

STEP 2: Explore and evaluate potential ways to diversify current funding sources and modernize policies that will support broadening services and programs for more diverse audiences.

1. Tactic: Develop internal and external communications campaigns about funding.
Internal and external communications campaigns can highlight agency needs and garner support for additional or more diverse funding sources. Appropriate staff, not just agency leaders, should fully understand the processes, opportunities, and potential constraints in requesting additional funding from federal, state, provincial, and private funding sources.
2. Tactic: Explore nontraditional funding sources.
The full breadth of nontraditional funding sources that may be available (e.g., private foundations, industry/business) should be explored. Some agencies have had success in aligning conservation-related funding requests with those that also address quality-of-life issues (e.g., urban green spaces, safe drinking water, floodwater abatement/control, nature-based experiences that promote human health and well-being). Building new and strengthening existing relationships with agency foundations could help leverage philanthropic support when seeking alternative funding sources.

3. Tactic: Work with partners to explore different sources of funding.
Agency partners can play a key role in supporting efforts to identify and analyze new funding sources. Partners can also advocate for new funding opportunities or initiatives, something many agencies are not able to do.
4. Tactic: Learn from other agencies about their funding models.
Consult with staff from other agencies about their funding models and processes. Lessons learned from both successful and unsuccessful initiatives to acquire and use new funds should be discussed.

STEP 3: Develop and implement a plan to acquire alternative or additional funding.

1. Tactic: Develop short- and long-term approaches to secure more (and more diverse) funding.
By developing long-term and short-term approaches to diversify funding, an agency can pursue funding to cover immediate needs while also focusing on more permanent solutions. When developing an approach, an agency should develop communication instruments that show how the funding will be used and how the public will benefit.
2. Tactic: Target key appropriations influencers.
Develop a longer-term campaign that strategically targets key individuals in the legislative system that can influence funding decisions. As part of the campaign, use strategic communications to help legislators understand how increased funding can help serve broader constituencies.
3. Tactic: Work with policymakers and partners to advocate for diversified funding.
Policymakers, regional and national organizations, and partners can assist in developing legislative proposals and advocating for local, state, provincial, and federal legislation to diversify funding.
4. Tactic: Support national, regional, state, provincial, and local efforts to increase and broaden funding sources.
Efforts to increase and diversify state, provincial, and federal funding to benefit all constituencies should be supported by the agency. Support should be secured from an agency governing body or executive leader and the funding need should be communicated to policymakers and constituents. The agency should provide examples of how the new funding would be used. Staff should be involved in the campaign, if appropriate.

STEP 4: Acquire and use sufficient and diverse funding sources to create programs that serve broader constituencies.

Tactic: Work with partners to identify and secure alternative funding sources.

Partners can help identify and advocate for new funding and secure resources to launch a campaign. The Association of Fish and Wildlife Agencies and the University of Michigan have compiled a list of alternative funding sources and a number of states are actively working on new funding approaches.

1. Tactic: Implement programs that target, engage, and serve broader constituencies.

Even before funding is secured, an agency should begin initial planning to decide how best to use new resources so there is not a delay in putting new funding on-the-ground. Partners and stakeholders should be involved in the process to identify priorities and approaches.

2. Tactic: Routinely monitor and document new program participation and outcomes.

Metrics to monitor and measure performance of new and existing programs and services should be developed and used routinely to ensure they are meeting established goals and the changing needs of constituents.

FUNDING CASE STUDIES

The Investing in Wildlife report (https://www.fishwildlife.org/application/files/6415/6762/2842/REPORT_Investing_in_Wildlife-State_Wildlife_Funding_Campaigns_full_report.pdf) compiled by the Association of Fish and Wildlife Agencies and the University of Michigan provides an overview of wildlife funding and case studies for selected states.

Barrier 2: Agency lacks capacity (expertise, staffing, resources) to identify, understand, engage with, and serve the needs of broader constituencies.

Some agencies lack sufficient, or the right types of, expertise (e.g., social science, marketing), skills, staffing, and funding to support activities that will improve the ability to identify, understand, and engage with constituents that are more diverse. Without this capacity, agencies will not be able to fully understand, effectively engage, and provide programs and services to broader constituencies.

STRATEGY: Identify ways to increase the expertise, staffing, and resources that will support activities to engage and serve broader constituencies.

STEP 1: Commit existing or acquire new resources to gather social science data or conduct new research to identify and better understand agency constituents' interests.

1. Tactic: Understand what social science skills are needed.

Work with other states and social scientists to better understand the types of social science information needed and the level of expertise required to achieve the agency's social science information needs. Learn what type of social science data and resources are needed to identify

and understand broader constituencies.

2. Tactic: Reallocate existing resources to support social science research and analysis.
Agency leadership can demonstrate their commitment to engaging with and serving broader audiences by allocating resources to activities that will increase and improve engagement with and service to broader constituencies. Some agencies have reclassified upper level biologist positions that require a M.S. or Ph.D. into social scientist positions. Others acquire social science data and support through contracts with the private sector or academia. Develop or provide training for staff to identify cultural barriers and behavioral barriers to engaging with the agency.

STEP 2: Understand the cultural norms and values that influence the relevance of fish and wildlife conservation and/or outdoor recreation to broader constituencies.

1. Tactic: Identify and understand agency constituents.
The best methods to find and engage with various constituencies should be identified. Identifying and understanding agency constituents is crucial to improving engagement. Methods used to engage and serve current constituents (e.g., hunters and anglers) may not be appropriate or effective with other constituencies. [The International Association of Public Participation](#) and the [Institute for Participatory Management and Planning](#) are two resources agencies can use to improve public engagement.
2. Tactic: Understand the interests of constituencies.
The agency should Learn how and why understanding the cultural norms, interests, and behaviors of diverse constituencies is important to conservation of fish, wildlife, and their habitats. How social science information can be used to reduce conflict among stakeholder groups, improve constituent satisfaction, and improve conservation outcomes should be demonstrated.
3. Tactic: Routinely assess human demographics to detect changes in values, attitudes, beliefs, and behaviors.
Human demographics at state (or provincial), regional, and local scales should be regularly assessed to understand how changes in peoples' values, attitudes, beliefs, and behaviors impact fish, wildlife, their habitats, and the agency's management of them. This insight should be used to understand what programs and services broader constituencies desire.
4. Tactic: Provide social science information to staff and the public to inform decision-making.
Information about constituent values and opinions should be provided to agency staff and the public so the agency can better understand and adapt to changing societal needs. Published literature on attitudes and opinions of broader constituencies should be reviewed and strategic foresight methodologies (e.g., domain maps, environmental scanning, scenario creations) should be used to generate desired future conditions that can guide current decision-making and employee development (e.g., U.S. Forest Service Northern Research Station works with

agencies, tribes, and others in Minnesota).

5. Tactic: Provide social science training to appropriate staff.

Provide training or access to social science information to appropriate staff. Some trainings include the [Human Dimensions Foundations of Natural Resource Conservation](#) offered by the U.S. Fish and Wildlife Service, behavioral economics training at the [Center for Behavior and the Environment](#), the [Center for Advanced Hindsight](#), and several states' Natural Resource Leadership Institutes. For agencies that acquire their social science information from external sources, staff should be provided with access to social science journals such as *Human Dimensions of Wildlife and Society* and *Natural Resources* so they can stay up-to-date on research results. Training should be provided to staff on how to design and implement effective stakeholder engagement activities (e.g., customer service training, emotional intelligence).

STEP 3: Assess the current and desired level of engagement of all constituencies and the interest to engage broader constituencies in conservation.

1. Tactic: Review and evaluate current constituent engagement and assess satisfaction with that engagement.

An evaluation can help the agency understand which constituencies are currently engaging with the agency and how satisfied they are with the types and level of their engagement. This could be accomplished by conducting an internal survey of staff to determine which constituencies are served and in what manner. A survey of those constituencies could then assess their level of satisfaction.

2. Tactic: Identify and prioritize the constituencies the agency needs to engage with the most.

Under the public trust doctrine, agencies have an obligation to engage with and serve all members of the public. Practically, agencies cannot engage with every individual and must prioritize and apply their resources to issues most important to stakeholders such as those who significantly impact or are impacted by fish and wildlife or its management (see Riley *et al.* 2002 for a discussion on adaptive impact management). Influencers within key constituent groups should be consulted to help understand needs and perceptions.

3. Tactic: Conduct social science research.

Social science inquiries and stakeholder engagement activities should be designed and conducted to better understand statewide/provincial, regional, and local levels of engagement and interest in conservation and conservation-related activities. Conservation partners could be interviewed to assess what level(s) of engagement they see from their members.

STEP 4: Assess the expertise needed to develop programs and practices that engage and serve broader cultures and constituencies.

1. Tactic: Identify the expertise needed to develop effective programs.

There should be an understanding of the value and benefits that the full suite of social science data and insight can provide to the design and delivery of desired and effective programs and

services. This should apply to both current and new programs. Agencies could work with social science experts to identify the expertise and skills needed to develop effective programs and services for broader constituencies.

2. Tactic: Assess staff social science expertise.
Experts (e.g., educators, marketers, social scientists) should be used to help assess current social science skills and capacity of staff. This will help determine if in-house expertise needs to be developed or enhanced or if external sources of social science information needs to be used.
3. Tactic: Determine staff willingness to engage and serve broader constituencies.
Some agency staff may be unable or unwilling to commit to engaging broader constituencies. Identify ways to minimize their negative effects or influence on efforts to engage broader constituencies. Staff that engage with broader constituencies should be recognized and rewarded.

STEP 5: Develop programs and practices that engage and serve broader cultures and constituencies.

1. Tactic: Create a strategic, comprehensive plan to engage and serve all current and future constituents.
A plan (e.g., stakeholder engagement strategy) should be developed to engage broader constituencies that explains the objectives and desired outcomes that will be achieved by engaging with and serving broader constituencies. This will demonstrate agency commitment to engaging and serving broader constituencies and provide high-level guidance on how to engage and serve them.
2. Tactic: Use social science information to identify currently unknown, underserved, or unengaged constituent groups.
Existing social science data and insight should be collected and reviewed to identify diverse, underserved and unengaged constituent groups. Some agencies may need to conduct new social science research or update existing data to identify broader constituencies.
3. Tactic: Identify constituent interests.
Social science data and insight should be used to understand constituent values and interests and the types of engagement or experiences they desire. Social scientists can help design engagement campaigns to attract potential conservation constituents.

MARKETING PROGRAMS

The Oregon Department of Fish and Wildlife empowered staff to communicate with diverse constituents in ways that resonate with their different relationships with nature. They worked with social scientists to train biologists on the concept of framing theory, and worked with communications experts to train staff on social media, crisis communications, and strategic communications so that biologists are aware that various constituents want to hear different types of conservation messages based on their value systems.

4. Tactic: Develop programs and services for broader constituencies.

Social science expertise (including that of designers of youth and adult education programs) and the resources needed to design desired programs and services for broader constituencies should be identified and acquired.

STEP 6: Implement programs and practices that serve broader cultures and constituencies.

1. Tactic: Market programs and services to broader constituencies.

Programs and services should be marketed to nontraditional audiences in ways that are most appropriate to them. This will help them understand the connection between conservation and participation in outdoor recreation with other important aspects of their lives (e.g., health and well-being, air and water quality, food security, environmental justice, or social justice).

2. Tactic: Provide programs and services to broader constituencies.

Programs and services to engage and serve broader constituencies should be implemented and the positive and negative effects of implementation should be evaluated and mitigated if necessary.

3. Tactic: Evaluate offered programs and services.

Social science methods should be used to routinely evaluate programs and services for current and broader underserved constituencies. Participation, user satisfaction, and alignment to program objectives should be monitored and adjustments made as needed. Focus groups of diverse constituents should be convened to understand their perceptions of the agency and solicit suggestions for providing them programs and services they desire.

4. Tactic: Partner with others that offer programs and services to broader constituencies.

Partnerships with other agencies, academia, and nongovernmental organizations that specialize in engaging with broader or diverse audiences should be initiated or strengthened.

5. Tactic: Address conservation challenges that are important to broader constituencies.

Conservation challenges that are important to broader constituencies should be understood. Social science applications (e.g., qualitative and quantitative inquiries, stakeholder engagement activities, marketing plans, message testing, program evaluation) to address long-standing, complex conservation challenges that are important to broader constituencies (e.g., human-wildlife conflict, invasive species, climate change) should be designed and implemented.

BARRIER 3: AGENCY LACKS CAPACITY TO DEVELOP AND IMPLEMENT PLANS THAT ENGAGE AND SERVE BROADER CONSTITUENCIES.

Many agencies lack the capacity (time, expertise, and resources) to design and implement high-level, longer-term comprehensive plans that focus on identifying and prioritizing activities and resources that will result in increasing and improving engagement with, and service to, broader constituencies. These

plans are not agency-level strategic plans, but a step down from those to guide agency focus, staffing and resource allocation.

STRATEGY: DEVELOP THE CAPACITY (TIME, EXPERTISE, FUNDING) TO DESIGN AND IMPLEMENT ACTION PLANS TO ENGAGE AND SERVE BROADER CONSTITUENCIES.

The ability for agencies to develop plans that will support and encourage staff to increase engagement and better serve broader constituencies is critical. Developing and using these plans will demonstrate the agency's commitment to engage and serve broader constituencies.

STEP 1: Assess staff skills, commitment, and capacity for planning.

1. Tactic: Assess the current agency culture and commitment to planning.
Not all agency staff will have the same commitment or capacity for planning. An agency should assess staff to see if there is alignment with the vision of the agency and its leaders. Additional resources (e.g., time, funding, staff) may be needed to shift the agency culture and commitment to support planning.
2. Tactic: Communicate and demonstrate the importance of planning.
Agency leadership can communicate and demonstrate the importance of planning by setting expectations that plans will be developed collaboratively and by allocating resources based on approved plans.
3. Tactic: Identify staff planning skills.
Many agency staff have not been trained to develop effective high-level-focused plans. Current and needed skills to develop quality strategic-level plans that involve systems thinking should be assessed.

STEP 2: Identify and prioritize planning efforts that are needed to engage and serve broader constituencies.

1. Tactic: Identify the types of plans that are strategic and will increase engagement with and serve broader constituencies.
Strategic-level plans could include stakeholder engagement plans, communications plans, agenda planning for Commission or Board meetings, agency-level financial plans, staff recruitment and retention plans, and agency-level business operations plans. Staff participation in local or regional planning or zoning efforts to ensure conservation and outdoor recreation perspectives are included will increase and improve agency engagement with broader constituencies.

RELEVANCY WORKING GROUP

The Massachusetts Division of Fisheries and Wildlife developed an agency relevancy working group to create a state-level relevancy roadmap. The state roadmap will focus on addressing the key barriers of agency capacity and agency culture. The working group comprises staff from diverse sections of the agency. They have held meetings at all district offices to introduce all staff to the concepts of relevancy.

2. Tactic: Prioritize planning efforts.

Planning efforts that focus on increasing engagement with, and service to, broader constituencies should be prioritized.

STEP 3: Acquire or redirect resources to secure needed capacity to develop and implement strategic-level plans.

1. Tactic: Provide resources for planning.

Commitment to strategic-level planning can be shown by providing the needed resources for effective planning. This could include training to improve skills in strategic and systems thinking, facilitation, and effective communication techniques.

STEP 4: Develop and implement plans.

1. Tactic: Implement the prioritized plans.

There should be a commitment by agency leadership to implement the prioritized plans. Timelines should be established, and accountability goals should be set.

2. Tactic: Evaluate implementation of plans.

Implementation of strategic-level plans should be routinely monitored for progress and to determine whether outcomes are being met relative to increasing and improving engagement with, and serving, broader constituencies.

BARRIER 4: AGENCY LACKS CAPACITY TO CREATE AND SUSTAIN EFFECTIVE PARTNERSHIPS TO SERVE BROADER CONSTITUENCIES.

The capacity to identify, create, and maintain successful partnerships is needed to improve and increase the agency's ability to engage and serve broader constituencies. This recognizes that agencies cannot fully engage and serve all constituencies alone and that partners have opportunities and resources that agencies can leverage to better serve broader constituencies (e.g., fundraising, education, lobbying).

STRATEGY: PRIORITIZE CREATING AND MAINTAINING PARTNERSHIPS THAT EFFECTIVELY EXPAND AGENCY CAPACITY TO DELIVER PROGRAMS AND SERVICES TO BROADER CONSTITUENCIES.

Agency capacity is required to create and maintain effective partnerships, especially those that focus on broader constituencies. Effective partnerships with organizations whose mission aligns with the agency's priorities can enhance and expand the agency's ability to deliver programs and services to broader constituencies.

STEP 1: Identify the benefits and opportunities of engaging with, and serving, broader constituencies that are provided by expanded and diverse partnerships.

1. Tactic: Explore and document the benefits and opportunities that partnerships might provide to increase engagement with broader constituencies.

There are numerous potential benefits to partnerships including their ability to reach broader constituencies and enhance conservation. These benefits should be identified for current and potential new partnerships to help justify new or expanded partnerships.

STEP 2: Identify and engage with partners whose mission(s) align with the agency's mission to engage and serve broader constituencies.

1. Tactic: Identify potential partners.

Potential new partners that have missions and goals that overlap with the agency's and will engage and serve broader constituencies should be identified. The mission and constraints of new and potential partners should be understood and respected. Current partnerships should be identified and reviewed, and priorities determined for those that can effectively engage and serve broader constituencies.

STEP 3: Prioritize and dedicate staff to maintain effective partnerships.

1. Tactic: Identify skills and resources needed to create and maintain effective partnerships.

Identify the staff skills, resources, and commitment needed to create and maintain effective and productive partnerships. These might include training in meeting management, facilitation, and conflict resolution, as well as resources for conducting meetings with partners.

2. Tactic: Demonstrate commitment to partnerships.

Resources to create additional or improved capacity to develop and maintain partnerships should be acquired or redirected from other sources. Staff should be supported and rewarded for expanding or maintaining effective partnerships.

3. Tactic: Create and maintain effective partnerships.

Appropriately leverage partner resources to increase or improve engagement with, and service to, broader constituencies (e.g., use unified messages). Be a good partner by sharing agency resources (e.g., information, equipment) and expertise.

BARRIER 5: AGENCY LACKS EXPERTISE AND KNOWLEDGE TO PROVIDE OUTDOOR RECREATIONAL EXPERIENCES THAT SERVE BROADER CONSTITUENCIES.

Many agencies lack the capacity (expertise, staffing, resources) to design, test, and implement outdoor recreational opportunities that nontraditional audiences are interested in and that are compatible with conservation priorities. This constrains the ability of the agency to engage with and serve broader constituencies.

STRATEGY: OBTAIN EXPERTISE AND KNOWLEDGE TO PROVIDE OUTDOOR RECREATIONAL EXPERIENCES THAT SERVE BROADER CONSTITUENCIES.

Agencies need to provide outdoor recreational experiences to broader constituencies to help them understand the importance of and their connections to conservation.

STEP 1: Understand the diversity and changing nature of outdoor recreational experiences desired by broader constituencies.

1. Tactic: Define the scope and authority of agencies to provide outdoor recreational opportunities.
Agencies need to understand and define what types of outdoor recreational experiences they can or are willing to offer. Some agencies may not offer certain experiences or amenities because they are not legally able, is inconsistent with the agency's mission or because they are offered by another agency.
2. Tactic: Identify the types and locations of experiences desired by constituents.
Routinely conduct social science inquiries to document constituents' current and desired interest and participation in outdoor recreational experiences. Users of public lands should be surveyed routinely to reveal changing interests. [Statewide Comprehensive Outdoor Recreation Plans](#) can be an important resource. The U.S. Forest Service has an online interactive [map](#) to locate hiking, biking, and horseback riding trails, fishing and picnic sites, and wildlife viewing sites on national forests.
3. Tactic: Identify expertise needed to develop effective outdoor experiences.
Experts (e.g., social scientists, youth and adult education program designers, park planners) should be consulted to identify the type of expertise and knowledge needed to design, implement, and evaluate effective outdoor recreational experiences.
4. Tactic: Learn from other organizations offering similar experiences.
Data and expert opinion from other agencies and organizations that are implementing programs should be gathered, analyzed, and applied as appropriate. Outdoor recreational experiences in other regions or countries should be monitored to explore potential new outdoor recreational offerings.
5. Tactic: Assess and address conflicts among constituents.
Some constituents may have concerns about others having access to agency properties, concerns about conflicting use of agency resources, or incorrect information about other resource users. Assess and address real and potential conflicts among constituents about expanding programs and services to broader constituencies.

MINORITY OUTREACH MANAGER

South Carolina Department of Natural Resources has hired a minority outreach manager to work with the Hispanic and Latino community. They have a Spanish version of their website and have provided cultural awareness training to staff.

STEP 2: Design and create outdoor recreational programs and services that engage and better serve current and broader constituencies.

1. Tactic: Acquire resources to design and implement outdoor recreational programs.
Acquire the needed expertise and knowledge to design, implement, market, and evaluate outdoor recreational experiences using either in-house expertise or through contractual arrangements.
2. Tactic: Leverage partners to design and implement programs.
An agency may lack capacity or expertise to design, test, and implement new or expanded outdoor recreational experiences that constituents have identified as important. The agency can partner with other agencies or organizations to design, implement, and manage outdoor recreation experiences in which broader constituencies are interested.
3. Tactic: Market outdoor programs to appropriate audiences.
Outdoor recreation programs and services should be marketed to constituents using methods that are most appropriate for them. Include explicit conservation messaging as a part of outdoor recreational experiences, including messaging related to how the public benefits from fish and wildlife conservation.

STEP 3: Monitor and measure participation and desired conservation outcomes in outdoor recreation experiences by all constituents and use that information to adapt current and future programs and services.

1. Tactic: Leverage resources from other programs.
The intersection or complementarity of new outdoor recreational experiences with existing programs and services should be determined. Resources and expertise should be shared or leveraged whenever possible.
2. Tactic: Monitor, evaluate, and adjust.
Program participation and satisfaction should be monitored using appropriate evaluation metrics. Desired conservation outcomes should be assessed in all outdoor recreational experiences offered by the agency. Insight gained should be used to modify and improve programs and services.

CONSTITUENT CULTURE

Barriers:

1. Perception by broader constituencies that fish and wildlife agency only cares about and serves hunters and anglers
2. Constituents may have fears, concerns, or beliefs that prevent them from engaging with nature.
3. Constituents may not recognize the threats facing fish and wildlife, their habitats, and humans, or how to engage to address the threats.
4. Some constituents are resistant to an agency engaging and serving broader constituencies.

BARRIER 1: PERCEPTION BY BROADER CONSTITUENCIES THAT FISH AND WILDLIFE AGENCY ONLY CARES ABOUT, AND SERVES, HUNTERS AND ANGLERS.

Given the dependence of state fish and wildlife agencies on hunting and fishing license sales and on federal funding sources such as the Wildlife and Sport Fish Restoration Programs (Pittman-Robertson and Dingell-Johnson acts), the public frequently perceives that agencies focus solely on hunters and anglers. For some fish and wildlife agencies this may be the case, but states also allocate resources to broader fish and wildlife conservation through the State Wildlife Grant and Tribal Wildlife Grant programs, Section 6 of the Endangered Species Act and other federal and state programs. Additionally, some constituents are not aware fish and wildlife agencies exist or that fish and wildlife must be managed. Movies, television images, social media, and urbanization are also contributing to an increase in anthropomorphizing of wildlife by many people.

STRATEGY: DEMONSTRATE THE AGENCY RECOGNIZES, REPRESENTS, VALUES, AND RESPECTS BROADER CONSTITUENCIES.

STEP 1: Identify the full suite of constituencies who may be served by and engaged with the agency and decide which to engage.

It is important that an agency systematically evaluate the universe of constituencies who could be engaged. Because no agency has the capacity to engage every constituent, and some constituencies will not be receptive to engagement, the agency needs to set priorities to determine the strategies and

tactics that should be employed. It is important that agency leadership set an expectation that engaging broader constituencies is important. Interdisciplinary teams that include social scientists can assist with constituency identification.

1. Tactic: Use existing information or engage social science experts in the identification of key served and underserved constituencies and decide which to engage.
Social scientists should be consulted to identify and prioritize constituencies and their leaders and influencers. The identification process should include existing key constituencies such as hunters, anglers, and the sporting industry.

STEP 2: Assess what is and is not being done by the agency that reinforces perceptions of broader constituencies.

1. Tactic: Use social science, marketing, and communications experts to assess constituent perceptions about the agency.
It is important to understand the perceptions various constituencies have about the agency. Questions such as who they feel is served by the agency, what they believe the purpose of the agency is, and their level of trust in the agency will give insight into their beliefs and misconceptions. Regional or cultural differences in perceptions should also be evaluated.
2. Tactic: Evaluate agency practices, employee behaviors, and communications to identify if messaging style, content, channels, etc., reinforce perceptions.
The way an agency engages in communication and the channels it uses can affect public perceptions. Employee conduct and communication processes should be examined to determine whether the delivery style or mode should be changed or modernized. The agency's website, press releases, social media, and other communication tools should be evaluated to determine if the imagery used is representative of public interests and demographics. Messaging used by the agency should be tested to ensure it is clear and resonates with broader constituencies. Agendas used at governing body meetings should be reviewed to ensure they represent the interests of, and are understandable to, broader constituencies and portray commission/board members as representative of the public they serve.
3. Tactic: Evaluate agency staff and constituents' values and biases and provide safe forums for staff discussions.

SOCIAL SCIENCE APPLICATION

Colorado's Wildlife Council oversees the design of media-based information programs to educate the public about the benefits of wildlife-related recreational opportunities in Colorado. It is funded by a \$1.50 surcharge on hunting and fishing licenses. When marketing research showed that Colorado's "Hug A Hunter" campaign was not resonating with the public, the Council decided to launch a new campaign, "This is the Wild Life" to appeal to broader audiences.

STAKEHOLDER ENGAGEMENT

Oregon's Department of Fish and Wildlife developed a strategic stakeholder engagement strategy and encouraged staff to look for opportunities to engage key influential stakeholders. Strategic outreach guidelines were developed for staff to select the best outreach approaches to reach important underserved audiences.

How reflective agency staff are of the public's diverse wildlife values and interests can affect how they work with broad constituencies. An evaluation of staff and the public's outdoor interests and wildlife value orientations could help identify conscious or unconscious bias. A forum that provides an open and nonjudgmental environment for discussion will help promote understanding and acceptance of differences. The [America's Wildlife Values](#) study could serve as a resource to help agency staff better understand the impacts of societal change on fish and wildlife conservation.

4. Tactic: Identify what experiences constituents want and determine how the agency can provide those experiences or services.

To better serve broader constituencies, the agency should ask them what they want and need. If there is a need for more places for wildlife viewing, the agency could add appropriate Wildlife Management Areas to Google Maps and promote birding or wildlife viewing in addition to hunting and fishing. Using social media creatively could help market new and different outdoor experiences to broader audiences. Videos like the Nature Rx series can help promote the values of nature and the outdoors.

STEP 3: Partner with identified constituencies to establish and implement strategies that result in fostering relationships, trust-building, and engagement.

1. Tactic: Develop and implement a communications strategy with messaging to change perceptions about who the agency serves.

A communications strategy should be developed and implemented that will change inaccurate or reinforce accurate perceptions about the agency. The strategy should use tested messaging and imagery that will resonate with and persuade broader constituencies to change their perceptions about who the agency serves. Partnerships with faith-based organizations that are already aware of the connection between quality of life and healthy ecosystems can help the agency reach broader audiences. The Association of Fish and Wildlife Agencies' ["Making It Last"](#) campaign is an example of a communications approach that can help change perceptions by increasing awareness of the comprehensive role of fish and wildlife agencies.

2. Tactic: Invest in new, and support current, programs that provide experiences and services that broad constituencies want.

Investment in new, and support of current, programs that serve broader constituencies can help an agency connect with more diverse audiences. Nature-viewing and volunteer programs such

REWARD STAFF

The Alabama Department of Conservation and Natural Resources and the Arizona Game and Fish Department provide incentives to staff who engage with broader constituencies.

ROUNDTABLE

Nebraska Game and Parks hosts a Conservation Roundtable — a group of diverse partners that meets regularly to discuss fish and wildlife issues.

as Master Naturalist or Master Wildlife Conservationist can help engage people of all ages in exploring wildlife and the outdoors. Birding or pollinator trails can serve people with specific wildlife interests. The [Wildlife Viewing and Nature Tourism Academy](#) can provide practical hands-on training for staff interested in starting or enhancing wildlife viewing opportunities.

3. Tactic: Recruit and train new employees whose wildlife value orientations and outdoor interests more closely resemble broader constituencies.

As the public's wildlife value orientations and outdoor interests change, agencies may need to hire new staff with different experiences and competencies. An agency can work with universities to identify the skills and training needed for new and existing employees to meet changing workforce demands.

4. Tactic: Seek expertise or provide training in social science, strategic thinking, communications, outreach, education and marketing to agency staff to improve engagement and service with broader constituencies.

Fish and wildlife agencies have historically been comprised largely of staff trained in fisheries and wildlife sciences. Today, growing demands on agencies require them to have more diverse staff who are trained in social science, marketing, education, organizational leadership, and other arenas. Agencies should hire experts in these fields or provide training to new and existing staff and volunteers. Core competencies in emotional intelligence, cultural awareness, diversity, and inclusion can help agency staff work more effectively with broader constituencies. Agency leaders should set high expectations for staff and volunteers that these new skills are necessary to serve broader constituencies.

5. Tactic: Support and reward employees for regularly engaging broader constituencies.

Some agency staff are self-motivated to engage with broader constituencies, but others may need incentives to do so. Agency leaders should support and encourage staff to work with more diverse audiences, even when it stretches staff. Rewards could include recognition, increased compensation, or other means.

6. Tactic: Participate in organized approaches to connecting with target communities.

The agency should strive, when possible, to meet with the public in community settings. Local advisory groups, meetings with community leaders, and other forms of civic engagement will help the agency reach and serve broader constituencies. These settings

ATTRACTING CONSTITUENTS

The New York Department of Environmental Conservation uses the "I Bird NY" brand to promote birding and sponsors a bird-finding contest. They also use the "Becoming an Outdoors-Woman" program to promote inclusivity.

DEVELOP EXPERTISE AND CAPACITY

The Texas Master Naturalist program trains a corps of natural resource volunteers who provide 425,000 hours per year in the form of conservation outreach to urban audiences, connecting conservation partners, improving outdoor recreation, improving or creating nature access, and reaching nontraditional audiences.

In another example, Kentucky partnered with East Kentucky Power Cooperative to establish 20 acres of pollinator habitat on powerline right-of-way adjacent to Grayson Lake Wildlife Management Area.

can provide a convenient and relaxed setting to gain a better understanding of broader constituencies' needs, concerns, and interests. Staff must be willing to listen and be receptive to ideas about desired services and programs. The Metropolitan Group's [eight steps](#) to increasing relevance, relationships, and results is a good resource on taking a multicultural approach to communication.

BARRIER 2: CONSTITUENTS MAY HAVE FEARS, CONCERNS, OR BELIEFS THAT PREVENT THEM FROM ENGAGING WITH NATURE.

Media coverage which reinforces the public's fears, peer pressure, cultural upbringing, safety concerns, and competing interests have fostered growing anxiety and diminished interest in the outdoors and nature. Accounts in the news and social media of wild animals causing disease, injury, or death can exaggerate the risks of spending time in nature. Fears can also stem from mistrust or lack of confidence in government agencies or negative encounters with conservation officers. Cultural differences and ever-growing competition from organized sports and electronics have taken a toll on how much time people spend outdoors.

STRATEGY: HELP BROADER CONSTITUENCIES FEEL MORE COMFORTABLE SAFELY ENGAGING WITH NATURE.

STEP 1: Identify how constituent fears, concerns, and beliefs about nature originate and what perpetuates them.

1. Tactic: Synthesize and summarize existing information or conduct new research about fears, concerns, cultural biases, and beliefs about being in nature.
Information on barriers to accessing nature should be synthesized and new research should be conducted where there are gaps in agency staff's understanding. Richard Louv's "[Last Child in the Woods](#)" raised awareness of the growing disconnect between society and nature. This spawned new research, much of which is housed in the Children & Nature Network's [research library](#).
2. Tactic: Engage communities to understand fears, concerns, cultural biases and beliefs about being in nature.
By speaking directly with community leaders and the public, specific fears, biases, and beliefs can be identified and the life stage at which the fears originate can be determined. The agency can use listening sessions, surveys, or focus groups to target key constituencies.

TRAINING

The Florida Fish and Wildlife Conservation Commission re-allocated some of its research funding and collaborated with the University of Florida to hire a professor of wildlife economics to improve agency access to the discipline.

The commission has also spent the past decade applying adaptive impact management https://ecommons.cornell.edu/bitstream/handle/1813/40554/AIM_guide_3rd_edition_2014.pdf?sequence=2. Working with Dr. Daniel Decker, professor emeritus of Cornell University, hundreds of Florida Fish and Wildlife Commission staff have been taught to think strategically about fish and wildlife management, working with stakeholders, and the importance of using effective social science.

STEP 2: Work with constituents to develop and implement strategies that acknowledge and address constituents' fears and concerns about nature.

1. Tactic: Develop and implement new partnerships and nature-based experiences to promote engagement and provide social support to constituents.

Nature-based outdoor experiences can be community or familial social experiences that provide an avenue to the outdoors and positive outdoor experiences. Developing partnerships with service organizations, religious groups, schools, local governments, state and local parks, and other entities can help an agency broaden its reach. Investments in partnerships can provide opportunities for the public to experience nature near urban centers or provide multifocal immersion that enhances comfort and skills in the outdoors. Programs such as Becoming an Outdoors Woman or activities like nature photography can introduce nature to new audiences. Expanding existing offerings such as recruitment, retention and reactivation (R3) initiatives to wildlife viewing, paddling, and other outdoor activities could also help engage new audiences in the outdoors. Social media can be an effective tool to reach new audiences.

2. Tactic: Work with broad constituencies to develop and implement communications and marketing strategies that address fears and discomfort with nature.

There are often misconceptions about the risks of being in the outdoors and nature. Providing information to the public through news releases, signage, or direct engagement can help people avoid or mitigate risks. Social media can be an effective tool for promoting interactions between agency staff and the public about wildlife experiences and for disseminating information rapidly. Group activities can serve as positive peer pressure that can help individuals overcome fear, build confidence, and increase long-term adoption of the activity. Technologies such as smartphones, wildlife cameras, augmented reality, gamification, etc., can serve as avenues to bring wildlife closer to people. Smartphone apps such as [iNaturalist](#) and [eBird](#) can help generate interest in nature and promote stewardship through community science. Developing and integrating outdoor marketing campaigns with partners such as chambers of commerce or tourism boards can help agencies tap into new networks and markets.

3. Tactic: Ensure constituents are invited and feel welcome and comfortable at agency events, properties, and nature-based activities.

Some constituents may not feel invited or welcome to attend agency-sponsored events, use agency public lands, or take advantage of services such as workshops or clinics. By using promotional and communications materials that appeal to broader audiences and marketing targeted at underserved audiences, an agency can broaden its reach. Conservation officers can help ensure a safe and enjoyable experience for outdoor recreationists through patrols and positive interactions with the public.

4. Tactic: Improve or enhance agency customer service so diverse constituents feel welcome.

It is human nature to gravitate toward people with similar interests. Training can help staff gain awareness and develop skills for communicating with constituents whose interests or background differ from their own. Training should be open to all staff but should be prioritized

for those who interact frequently with the public such as administrative staff, public land managers, conservation officers, and facilities staff.

BARRIER 3: CONSTITUENTS MAY NOT RECOGNIZE THE THREATS FACING FISH AND WILDLIFE, HABITATS, AND HUMANS OR HOW TO ENGAGE TO ADDRESS THE THREATS.

The public often lacks an understanding of the threats to fish and wildlife and their habitats and the role humans play. Contributing to the challenge are the growing disconnection between people and wildlife, media coverage often focused on 10-second sound bites and conflict, and the ability for inaccurate information or glorified bad behavior to go viral through social media. Furthermore, engaging with any government bureaucracy can be frustrating to the public when they have to navigate a myriad of processes and procedures that are confusing and unfamiliar.

STRATEGY: CONNECT CONSTITUENT CONCERNS FOR HUMAN QUALITY OF LIFE TO THE THREATS FACING FISH, WILDLIFE, AND THEIR HABITATS AND PROVIDE TRANSPARENT, PRODUCTIVE, CONSISTENT WAYS FOR CONSTITUENTS TO ENGAGE.

Conservation agencies protect and manage millions of acres of land that have the dual function of providing habitat for wildlife as well as providing ecosystem services to ensure there is clean air and water, flood protection, erosion control, and open space. Studies show that having green space in close proximity where people live can promote an active and healthy lifestyle. Many species of wildlife provide economic benefits, such as insect control by bats which is estimated to provide [\\$3.7 billion annually](#) in benefits to agriculture.

STEP 1: Develop a better understanding of how concerns about quality of life align with threats to fish, wildlife, and habitats.

1. Tactic: Identify how existing actions to reduce threats to fish and wildlife also benefit human quality of life.

A large percentage of the public does not understand the important contributions agencies make to maintain or improve quality of life. Agencies should seek to make stronger connections between conservation work and the services that broader constituencies need and care about. Food and

REGIONAL MEETINGS

The Indiana Department of Natural Resources holds Conservation Happenings — a series of regional meetings where diverse conservation partners and stakeholders meet to talk about issues and topics of regional importance and look for ways to collaborate more effectively in the delivery of conservation programs.

WILDLIFE HEROES

The Arizona Game and Fish Department has worked to reach new and diverse audiences through a variety of campaigns, partnerships and promotions including the Arizona wildlife heroes campaign.

fiber, clean water and air, protection from storms, open space, and carbon sequestration are just some of the services that are provided by the lands and waters agencies conserve. There are a number of resources that are available to help the public understand the threats to fish and wildlife, including but not limited to [State Wildlife Action Plans](#), [Millennium Ecosystem Assessment](#) and the [Nature of Americans Report](#).

2. Tactic: Acquire social science information to understand broader constituencies' concerns about their quality of life as well as what they perceive to be threats to fish, wildlife, and habitats.
By conducting literature reviews, synthesizing existing information, and using social scientists to conduct original research, an agency can gain a better understanding of the public's concerns and their level of knowledge about threats to fish and wildlife. The [Nature of Americans Report](#) and [America's Wildlife Values](#) study are two sources that can provide relevant information.

STEP 2: Work with partners to identify opportunities to reduce barriers to broader constituencies' engaging effectively with the agency.

1. Tactic: Inventory and understand existing agency engagement processes.
There are a multitude of ways in which agencies engage broader constituencies. They do this through public meetings, advisory councils, social media, participation in meetings, and agency communications. Those processes should be inventoried to gain an understanding of which segments of the public participate and their level of engagement.
2. Tactic: Learn how broader constituencies prefer to be engaged with their agency and what motivates them to act.
To effectively engage broader constituencies, it is important to understand the method or means by which constituents would like to be engaged with their agency. Constituencies who currently participate may prefer other means or there may be approaches that have not been used that would increase engagement by nonparticipating constituencies. Surveys, listening sessions, or direct inquiry with influencers or constituency leaders could help identify the best method for engagement.

STEP 3: Work with partners to identify the most needed and effective engagement activities for constituents to reduce threats to fish, wildlife, and habitats.

CREATING EFFICIENCIES

Staff of Texas Parks and Wildlife Department used to meet individually with private landowners to discuss and provide instruction in using and applying for Texas's wildlife tax valuation process. Recently, they piloted workshops to more efficiently reach private landowners. Staff were able to save nine weeks of time annually and thousands of miles of vehicle travel. In post-workshop surveys, participants were unanimous in finding the workshops helpful and very few participants required personal follow-up by staff.

VISUALIZATION

The Missouri Department of Conservation's Wildlife Action Plan describes threats to fish and wildlife in priority landscapes called Conservation Opportunity Areas. This allows the public to see how these threats affect fish and wildlife at a local scale.

1. Tactic: Analyze effective engagement activities that are most likely to be adopted by constituents to reduce threats.

To address key threats to fish and wildlife, an agency should work with partners to identify the engagement activities that are most likely to be adopted by the public. Using partners and tapping into their networks would expand an agency's reach, reveal a larger suite of activities, and indicate those most likely to be adopted. Communication with constituents will be more effective when it is explicit about how constituent actions will address threats to fish and wildlife.

2. Tactic: Work with partners to develop a suite of specific engagement activities and encourage behaviors ranging from low personal investment to high personal investment through which constituents can influence conservation.

Once effective engagement activities are identified, those activities that are achievable and appropriate for target audiences should be highlighted. The agency should work with partners to encourage actions that can reduce threats to fish and wildlife. Actions should be scalable so that strongly and moderately committed members of the public can contribute. Even actions that have a trivial effect on a threat may yield other benefits such as increased awareness of the effects on fish and wildlife.

STEP 4: Implement activities and programs that foster constituent engagement and behaviors to reduce threats to fish, wildlife, and habitat.

1. Tactic: Implement a stakeholder and media engagement strategy to develop and deliver targeted information and tools to help constituents engage and take action to reduce threats.

A stakeholder engagement strategy can help an agency identify key stakeholders and organizational contacts, as well as opportunities for shared purpose and the approaches or tools that can help people engage and take action to reduce threats. Social media may be the best means to communicate with certain constituencies. [Project Engineer](#) has identified five steps to building a stakeholder engagement plan. Agencies should consider using media outlets, including those that may not always provide accurate information or which sensationalize wildlife interactions with the public to help reach diverse audiences.

2. Tactic: Provide support to constituents to help them engage and use the information, tools, and new processes to take action to conserve fish, wildlife, and their habitats.

The agency should provide support to help constituents use the information and tools provided to them to take actions to benefit the natural resources they value. Agencies and partners have staff who can provide technical support, outreach, and programs that incentivize conservation and services that connect people to wildlife.

3. Tactic: Routinely evaluate constituent engagement, information, tools and new processes to ensure desired outcomes are achieved and adapted if necessary.

Public engagement should be measured and monitored so practices can be adapted as needed. Metrics should be determined for tools, communications materials, and processes so their

effectiveness can be periodically reviewed and assessed to ensure they are meeting the changing needs of broader constituencies.

BARRIER 4: SOME CONSTITUENTS ARE RESISTANT TO AN AGENCY ENGAGING AND SERVING BROADER CONSTITUENCIES.

Fear of loss is well-established as a common factor in resistance to change. Some constituents may be resistant to agency efforts to engage and serve broader constituencies based on fear of loss of influence on agency decisions or concern about the effect of redirecting agency resources to new programs. [Manfredo et al. \(2018\)](#) reported evidence of a cultural backlash that may be occurring in response to a shift in wildlife value orientations. If enough resistance is expressed, it could impede agency efforts to engage and serve broader constituencies.

STRATEGY: REDUCE RESISTANCE BY DEMONSTRATING THE CONSERVATION BENEFITS OF BROADER ENGAGEMENT AND THE AGENCY'S RESPONSIBILITY FOR SERVING ALL MEMBERS OF THE PUBLIC.

Although it may not be possible to eliminate all resistance to broader engagement, an agency may be able to reduce it by reassuring traditional constituents that expanding engagement is not a zero-sum game and that their interests will continue to be supported. Demonstrating the conservation benefits of engaging and serving broader constituencies, and effectively communicating the agency's obligations to all members of the public under the public trust doctrine can help. It is likely that among those who initially oppose an agency's efforts to serve broader constituencies, some may become supporters once they understand they share conservation goals with other groups. Support may also increase when the benefits of having more diverse support for the agency are communicated. Some members of the public may be unaware of the responsibility agencies have under the public trust doctrine to treat all members of the public equitably. By understanding, addressing, and alleviating the fears and misconceptions of initially resistant individuals, an agency might recruit more advocates for broader engagement and reduce the influence of others whose resistance is unlikely to waver.

STEP 1: Identify the issues, perceptions, and beliefs that generate resistance to engaging and serving broader constituencies.

1. Tactic: Use social science research to understand the values, perceptions, and beliefs of people who resist broader engagement.

Rather than operating on assumptions, it is imperative to identify the specific nature of and basis for people's resistance in order to select appropriate actions that will effectively increase support. Several studies have identified, at various scales, the values, perceptions, beliefs, and motivations people hold toward wildlife and nature. Other studies have investigated the basis for resistance to engaging more diverse interests in agency programs. This literature, supplemented by local research, may help an agency understand why some constituencies resist expanding engagement.

2. Tactic: Meet with individuals or organizations that are resistant to explore the reasons for their position.

In addition to conducting research, agencies should interact directly with constituencies who

resist expanded engagement. First, direct interactions will enable the agency to gain additional understanding of the basis for resistance. Second, making the effort to meet with constituencies who resist expanded engagement demonstrates that the agency recognizes them as having legitimate interests and gives the agency the opportunity to establish a dialog that is essential to understanding the reasons for resistance. It may be necessary or appropriate at first to use trained facilitators from outside the agency to conduct structured focus groups or other interactive techniques to identify the core concerns, fears of loss, and perceptions that produce resistance to an agency's efforts to engage broader constituencies. Eventually, direct interactions should establish a level of trust, through which the agency can address the identified causes of resistance.

STEP 2: Demonstrate continued commitment to current constituencies.

1. Tactic: Establish or strengthen working relationships with hunter, angler, and trapper organizations.

Most agencies have strong working relationships with hunter, angler, and trapper organizations, but paying additional attention to these organizations at the same time an agency seeks to engage broader constituencies may reduce the concern that the agency is turning away from traditional constituencies. Adjusting workloads to provide time for staff to participate in meetings with organizational leaders or their members, or targeting communications to these groups are ways an agency can demonstrate a continued commitment to hunters, anglers, and trappers.

RECRUIT HUNTERS AND ANGLERS

The Ohio Department of Natural Resources has created a "Mentor's Challenge." Employees are encouraged to introduce residents to hunting, fishing and other forms of outdoor recreation. Employees are rewarded for these activities and this challenge has the added dividend of exposing staff to diverse audiences.

2. Tactic: Engage respected, credible spokespeople among the hunter, angler, and trapper communities to help reassure opponents of broader engagement of the agency's continued commitment to its traditional constituencies.

Many credible outdoor writers and others who are respected by, or are influencers of, hunters, anglers, and trappers understand the benefits of engaging broader constituencies. Encouraging these individuals to help carry the message to their audiences may be more effective than communications from the agency.

STEP 3: Demonstrate the shared values and conservation benefits of collaboration with broader constituencies.

1. Tactic: Share results of the Nature of Americans study with broader constituencies.

The [Nature of Americans Report](#) documents the strong interest most Americans have in nature and the value the public places on conservation. An agency can use this information to develop

state/province-specific and issue-specific messages that focus on areas of agreement. These messages can be used to offset rhetoric that emphasizes differences.

2. Tactic: Identify local conservation initiatives with broad appeal that benefit from a broader base of political and financial support.

Most agencies should be able to identify a conservation challenge that cannot be addressed without the support of diverse constituencies. Examples may include large-scale habitat conservation or restoration projects, potential effects of a development on critical fish and wildlife resources, or the threat of invasive species. By engaging both traditional and broader constituencies in efforts to address the challenge, an agency can demonstrate the value and need for expanded partnerships. Generating support for [Recovering America's Wildlife Act](#) may also be an example of an effort around which diverse constituencies can come together to support increased funding for agencies.

3. Tactic: Summarize and promote the results of diverse stakeholder focus groups, collaborations, partnerships, and problem-solving exercises.

Fear of loss not only contributes to resistance to engaging and serving broader constituencies, it also affects agency staff who may be hesitant to try new efforts that bring more voices to the conservation table. By documenting past conservation achievement stemming from broader constituent engagement, agency staff and leadership may be better prepared for outreach efforts that increase the agency's relevancy because they can cite past success and alleviate concerns of losing current support.

STEP 4: Build relationships between constituencies based on shared values, beliefs, and conservation priorities.

1. Tactic: Engage current and potential new constituencies in ways that build relationships among them.

Relationships and trust are built on personal interactions. It is easy to apply an us-versus-them paradigm to people with whom an individual has no relationship or who hold differing values and beliefs. Modern electronic communication methods and social media, which allows people to attack others with anonymity, amplifies this problem. When people with deeply divergent values are placed in a setting where they can interact on a personal level, a very different dynamic occurs. With time and facilitation, participants can come to recognize the human value of those with whom they disagree and begin to respect the others' conservation or nature values. Giving a diverse group a challenging problem to address can provide the basis for building understanding and trust. The Governors Roundtable on the Yellowstone Grizzly Bear Conservation Strategy and Montana's Wolf Management Advisory Council are two examples of processes that brought together diverse interests on a conservation issue. Encouraging broad constituencies to interact can also serve to build relationships. For example, a hunter or angler taking a nonhunter/angler out hunting or fishing can be a way to demonstrate how such activities support conservation. Similarly, having hunters/anglers

NORTH AMERICAN WATERFOWL MANAGEMENT PLAN

The North American Waterfowl Management Plan is a model for building relationships and collaboration among hunters and bird watchers. (Milling et al. 2019)

accompany nonhunters/anglers on birding or nature hikes can provide an opportunity for these individuals to share both an experience and their mutual passion for wildlife.

2. Tactic: Engage current and potential new constituencies in habitat restoration projects.
One of the most commonly shared values among broader constituencies is the importance of healthy fish and wildlife habitat. By engaging diverse interests in efforts to restore habitat, an agency can demonstrate to all parties their shared conservation values. Habitat restoration projects may have broader appeal than habitat conservation projects because the latter may involve precluding development, foregoing resource extraction, or transfer of land title to a government or nongovernment entity, to which some people object. Habitat restoration focuses on fixing a problem to benefit fish and wildlife that most people can support.
3. Tactic: Provide opportunities for current and potential new constituencies to share their stories with each other.
People often communicate best through storytelling. Allowing diverse constituencies to tell their stories to each other in a facilitated, noncompetitive, and respectful way can demonstrate people's shared commitment to, and passion for, conservation and allow various constituencies to take and share credit for conservation successes.

STEP 5: Increase awareness of the agency's obligation to serve all members of the public.

1. Tactic: Consistently communicate the full scope of the agency's obligations under the public trust doctrine.
Under the public trust doctrine, government holds fish and wildlife in trust for everyone, including both current and future generations. To fulfill this trust responsibility, an agency must consider the values, interests, and desires of all members of the public equitably. Engaging broader constituencies is not only a good thing to do for conservation, it is also a legal, fiduciary obligation (Smith, 2011). By consistently communicating this broad responsibility, an agency can build awareness and understanding of its obligation to all members of the public. Because most Americans highly value fairness, this increased awareness may reduce resistance to agencies engaging broader constituencies.

CONSTITUENT CAPACITY

Barriers:

1. Broader constituencies' outdoor recreation pursuits are limited by real and perceived barriers such as economics, cultural norms, nature-based values, outdoor interest, and access limitations.
2. Broader constituencies do not value the benefits nature provides.

BARRIER 1: THE OUTDOOR RECREATION PURSUITS OF BROADER CONSTITUENCIES ARE LIMITED BY REAL AND PERCEIVED BARRIERS SUCH AS ECONOMICS, CULTURAL NORMS, NATURE-BASED VALUES, OUTDOOR INTEREST, AND ACCESS.

Several practical challenges stand in the way of individuals engaging in the outdoors. Some of the challenges are associated with the cost or ease of access to the outdoors, while others are perceptions about how to engage because of cultural norms or ineffective communication by agencies.

STRATEGY 1: PROVIDE EASILY ACCESSIBLE PLACES TO ENGAGE WITH NATURE AND THE AGENCY THAT MEET THE NATURE-BASED VALUES AND SOCIAL NEEDS OF BROADER CONSTITUENCIES.

A variety of opportunities to engage with nature and the agency will be necessary to meet the needs of broader constituencies. An agency can broaden the base of constituencies who engage in the outdoors and with agencies by understanding gaps in access (i.e., deficit of parks/natural areas, lack of easy/affordable transportation, etc.) in close proximity to where people live and socialize.

STEP 1: Assess how broader constituencies want to engage, or are engaging, with nature and the agency.

1. Tactic: Use social science to identify served and underserved constituencies including how they are currently engaging, and how they want to engage in the future, with nature and the agency. Social scientists or others trained in social science should use surveys, focus groups, listening sessions, consultations with staff, etc., to determine which constituencies the agency is currently serving and those that are not served or are inadequately served. As an agency expands its service to broader constituencies, its effectiveness will increase by understanding and adopting the ways constituents want to engage with the outdoors and the agency.

2. Tactic: Identify actions the agency is taking that perpetuate the identified barriers to all constituents with particular focus on underserved communities engaging with the agency.

It is important for an agency to understand how its actions may be standing in the way of broader constituencies engaging with the agency and nature, so it can acknowledge or adjust its practices. Surveys, focus groups, interviews with participating and nonparticipating constituencies, etc., can be used to identify barriers.

STEP 2: Work with partners to provide equitable and easy access to nature for diverse constituencies.

1. Tactic: Review and compile existing federal, state, provincial, county, city, nongovernmental, and other databases to determine available places providing, and potential gaps in, access to nature.
Many governmental and nongovernmental organizations have programs or manage lands that provide access to nature. However, there is no single database of lands or programs that describes the location and opportunities on public and private lands to access nature. Compiling and reviewing a database could help an agency identify where there are gaps in access or where programs are needed.

2. Tactic: Identify and engage partners that could help the agency expand opportunities to nature.

There are many federal, state, provincial and local governments, as well as private organizations that provide services or support activities to help people access nature. The agency can enhance this work by supporting existing, or starting new, partnerships to reach new audiences.

3. Tactic: Identify strategic partnerships that address identified obstacles to accessing nature.

The agency should identify partners who can help overcome barriers to accessing nature. This could include partnerships with public transportation agencies or providers to make it easier for key audiences such as the underserved to visit quality nature sites. Programs that help broader constituencies access and feel safe and confident to use outdoor spaces can help overcome a significant barrier to engaging with nature.

INCLUSIVE ACCESS

*The Smithsonian has adopted an access strategy
<https://www.si.edu/access>
that provides inclusive experiences and access for all.*

COMPILING INFORMATION

*Publicly available data sources like the U.S. Geological Survey Protected Areas Database
<https://www.usgs.gov/media/images/pad-us-20-viewer-showing-key-navigation-using-map-interface>, *Discover The Forest* and trails layers within OnX Maps
<https://www.onxmaps.com/>
are sources of information the public can use to access the outdoors beyond those provided by fish and wildlife agencies.*

STEP 3: Partner with trusted community leaders who reflect constituent-specific values to communicate with target audiences.

1. Tactic: Work with community service-oriented leaders and institutions interested in providing well-rounded experiences within target communities.

Identifying and partnering with organizations that serve specific communities can expand the reach of an agency to new and broader constituencies. These organizations often have established networks, resources, and a broad appeal that can bridge the gap between agencies and previously underserved constituencies.

2. Tactic: Use broad, diverse, and novel communication channels to engage target audiences either directly by the agency, or through other contributors.

Community leaders often have well-established communication channels that are efficient and effective at reaching targeted audiences. Working with these leaders will allow an agency to focus on development, delivery, and/or administration of programs and services.

TOOLKITS

The North American Conservation Strategy Toolkit
<https://www.fishwildlife.org/a-fwa-informs/ce-strategy/north-american-conservation-education-strategy> contains resources developed by the Association of Fish and Wildlife Agencies to support conservation educators who offer fish- and wildlife-based programs.

STEP 4: Work with partners to expand capacity to increase the public's engagement with nature and the agency.

1. Tactic: Identify partners and trusted community leaders to support engagement to expand opportunities.

Organizations and educational institutions that work with ethnically and demographically diverse communities can provide access to new audiences and volunteer networks. They may also be able to provide resources and capacity to help people engage with agencies and nature.

STRATEGY 2: DEVELOP KNOWLEDGE, SKILLS, AND ABILITIES FOR BROADER CONSTITUENCIES TO ENGAGE IN OUTDOOR RECREATION.

Engagement in outdoor recreation can be increased by working with strategic partners to provide opportunities to increase knowledge, skills, and abilities so a larger segment of the public will participate in nature and the outdoors.

STEP 1: Identify gaps in interest, knowledge, and skills that limit outdoor recreation.

1. Tactic: Use social science expertise to understand and define which outdoor activities appeal to target constituent groups.

Social scientists or staff with social science training should use surveys, focus groups, forums, stakeholder interviews, and other means to determine what outdoor activities broader constituencies currently participate in, or would participate in if awareness or accessibility were

improved. Demographic information should be examined to understand how preferences differ among groups. Data should be collected at regular intervals so trends can be documented and assessed.

2. Tactic: Use the Outdoor Recreation Adoption Model to ensure programs and activities cover the range of actions from interest to active engagement in nature.

The [Outdoor Recreation Adoption Model](#) is a sound approach to developing additional pathways to engage in the outdoors. This process has been successfully applied to hunter and angler recruitment, retention, and reactivation (R3) efforts and can be applied to any outdoor recreation activity such as camping, paddling, birding, hiking, etc. Use of the model will help ensure that entry into outdoor recreation is not a dead end if an individual does not have the time or comfort to move to the next stage of outdoor recreation participation.

STEP 2: Work with partners to address gaps in constituencies' interest, knowledge, and skills.

1. Tactic: Develop knowledge- or skill-specific programs that reach target audiences across the range of knowledge and skill levels.

Agencies should develop programs, activities, and/or opportunities that target broader constituencies with varying levels of knowledge, skills, and abilities. An emphasis should be placed on making engagement easy and enjoyable and promoting experiences that create comfort and connection with nature and the outdoors.

2. Tactic: Identify new and existing partners to highlight and/or deliver existing opportunities.

Agencies and their partners should work together to identify and develop awareness of existing opportunities to involve diverse constituencies in activities to increase interest, knowledge and skills in the outdoors and nature.

STEP 3: Develop and use effective communications strategies to engage broader constituencies in nature.

1. Tactic: Develop and implement target-specific messaging and test effectiveness.

Tested messaging should be developed and delivered through effective means to communicate the value of and opportunities to engage in nature. Using storytelling to share the benefits of spending time in the outdoors and nature can promote positive personal experiences that may help attract new audiences. Storytelling is one of several ways to engage the emotional centers of the brain to enhance communication.

DEVELOP CONSTITUENT SKILLS

Alabama Department of Conservation and Natural Resources has the [Becoming an Outdoors-Woman program](#). This twice-annual workshop offers hands-on instruction in a fun and nonthreatening learning environment. Participants can choose from over 50 courses such as backyard wildlife, rock climbing, camp cooking, map and compass skills, shooting sports, fishing, hunting, canoeing, photography, bird watching, and more.

STEP 4: Work with partners to provide target-specific opportunities and trainings to implement the programs and measure effectiveness of programs.

1. Tactic: Develop training modules and sponsor events to enable the agency and partners to implement programs.
Training for agency staff and partners may be important to building the capacity needed to implement programs, activities, and services to reach broader constituencies. Training could be done through in-person workshops or academies, virtually using webinars or online courses, or through some combination. Programs that use mentors to provide training and experiences in the outdoors can be very effective.
2. Tactic: Measure effectiveness of programs and adjust to ensure they are meeting constituent needs and resulting in increased engagement with nature.
Measures should be identified, and monitoring conducted, to help ensure that programs that are developed and activities and opportunities provided are reaching the intended populations and are effective. To accurately understand program effectiveness, it is important to understand whether the programs or opportunities being offered match the interests of broader constituencies. Programs that are not meeting goals or achieving desired results should be adapted or eliminated.

BARRIER 2: BROADER CONSTITUENCIES DO NOT VALUE THE BENEFITS NATURE PROVIDES.

A lack of time is cited as the reason why a large segment of the public participates little or not at all in nature activities. Spending time in nature is often a low priority among competing interests such as job-related work, household and family activities, and leisure pursuits such as organized sports and screen time. Helping people understand the positive physical and psychological benefits of time spent in nature offers an opportunity to raise the level of importance of nature-related activities.

STRATEGY 1: WORK WITH PARTNERS TO PROVIDE OPPORTUNITIES TO BROADEN THE SPECTRUM OF CONSTITUENCIES WHO UNDERSTAND THE WAYS IN WHICH NATURE IMPROVES THEIR QUALITY OF LIFE.

Spending time in nature and the outdoors has a wide range of benefits such as reducing stress, improving memory, increasing happiness, and inspiring creativity, all of which can improve quality of life. Helping people understand these benefits can provide an incentive for people to spend more time outdoors and in nature.

STEP 1: Research and define how specific outdoor activities improve quality of life, including economic benefits.

1. Tactic: Conduct a comprehensive review of existing evidence of how nature improves quality of life.
Numerous studies have documented the benefits of spending time in nature. The results of these studies need to be put into context and in a form that is meaningful. Some of this information has been compiled in reports such as the [Benefits of Outdoor Skills to Health](#),

[Learning and Lifestyle: A Literature Review](#) (AFWA, 2010); the [Parks and Other Green Environments: Essential Components of Healthy Human Habitats](#) (Kuo; NRPA, 2010); [Home to Us All: How Connecting with Nature Helps Us Care for Ourselves and the Earth](#) (Charles *et al.*; Children & Nature Network, 2018).

2. Tactic: Identify nature-based values of constituents and how they impact engagement with nature.
The [Nature of Americans Report](#) provides descriptions of the nature-based values of people and identified likely points of entry for engagement in nature. An understanding of demographic and geographic differences in values can help inform the approaches needed to engage various constituencies.
3. Tactic: Use social science to understand how broader constituencies are currently engaging with the outdoors and nature.
An agency should enlist the help of social scientists to gain an understanding of how broader constituencies currently engage with the outdoors and nature. This information may be available in the literature or require new research. Consideration should be given to how culture and motivation affects engagement in nature activities, how people decide whether and when to participate, and the networks used to access nature.

STEP 2: Work with partners and their networks to communicate with target audiences regarding how engaging in outdoor activities improves quality of life.

1. Tactic: Use social science to identify and define constituency groups.
An agency should use social science to segment broader constituencies into defined groups related to nature-based values, demographics, and geography. Doing so will help an agency design and implement programs that can target outreach and customize programs and services.
2. Tactic: Match proximity and access of outdoor activities to proximity of key broader constituencies.
Agency managed public lands are often in rural areas, away from urban centers. Although this has benefits (i.e., provide safe places to use firearms, offer solitude, lower land acquisition costs, etc.), these areas are less accessible to many broader constituencies because of transportation or time constraints. An agency should seek to match the proximity of outdoor recreation and nature-based opportunities to provide broader constituencies access to nature. This could be accomplished by mapping green spaces, trail networks, sidewalks and other transportation networks to outdoor opportunities.
3. Tactic: Identify partners and avenues to effectively communicate to target constituencies (e.g., industries, community leaders, and influencers).
Agencies should seek to leverage the help of diverse partners including federal, state, provincial and local governments, private organizations, and businesses to communicate how engaging with nature improves quality of life. New partnerships within the health field such as medical institutions, county or state/province health departments, medical insurance companies, etc.

could help the agency reach new audiences who want to capitalize on the physical and mental health benefits of time spent in nature and the outdoors.

STEP 3: Work with partners to develop effective audience-specific communications strategies.

1. Tactic: Support or develop expertise and capacity in social science, communications, outreach, education, and marketing within the agency.

To reach new audiences, an agency will need to build new capacity and may need to adapt how some resources are allocated. New or additional expertise in social science, communications, outreach, education, and marketing will help the agency meet growing demands to understand, communicate, and educate broader constituencies.

2. Tactic: Engage social scientists in developing, testing, and evaluating messages before implementing constituent-specific communications campaigns.

Communication is key to reaching broader constituencies and core to communication is using effective messaging. Social scientists should be enlisted to help develop, test, and evaluate messages that can be incorporated into a strategy or campaign to help connect more people with nature.

3. Tactic: Use focus groups for targeted audiences to inform the communications strategy.

Focus groups can be an effective means to understand the ideas, opinions, and beliefs of a small group of individuals that can be extrapolated to a larger population. The focus group could be used to test messages or key words, phrases, or imagery that could be part of a communications strategy.

4. Tactic: Identify existing, or develop new, communities of practice that are already developing audience-specific messages and programs.

Joining or establishing a new community of practice to facilitate communications with broader constituencies could help agency staff learn from peers and share learning and best practices.

STEP 4: Deliver and test audience-specific communications strategies.

1. Tactic: Identify measurable outcomes associated with specific communications strategies to determine effectiveness.

Measures should be identified, and monitoring conducted, to determine whether goals and outcomes are being met. Monitoring and evaluation of effectiveness will ensure that programs are adapted if needed.

2. Tactic: Identify avenues through which target audiences are currently receiving information.

It is important to know how broader constituencies are getting information and the sources of such information. This will help ensure that the most effective communications tools can be used to deliver messages to target audiences.

PEER LEARNING

The Community Connections Academy within the U.S. Fish and Wildlife Service provides a forum for Urban National Wildlife Refuge program staff to facilitate communication and sharing of success stories.

STEP 5: Work with partners to provide opportunities to access the outdoors and nature.

1. Tactic: Identify gaps between what agencies and partners provide and experiences that broader constituencies seek that would improve their quality of life.
There are likely gaps between the programs and services that agencies and partners provide and the outdoor experiences that broader constituencies seek. Identifying these gaps will help an agency create programs, develop curricula, and provide services it can deliver or support partners in doing so.
2. Tactic: Work with partners to provide access to, and deliver appropriate, outdoor experiences.
Agencies should work with partners to provide access — when feasible — to places that provide quality nature-based experiences. The outdoor experiences that are provided should match the wants and needs of constituencies.

STRATEGY 2: WORK WITH PARTNERS TO EXPAND OPPORTUNITIES TO INCREASE THE DIVERSITY OF CONSTITUENCIES EXPERIENCING POSITIVE EMOTIONAL CONNECTIONS WITH NATURE AND THE AGENCY.

A sense of place or social connection are the result of positive emotional connections that can lead to desired behavioral changes such as respect for nature or desire to engage in stewardship. In today's increasingly urban world where people have less time for leisure and unstructured activities, it is important to provide convenient opportunities for interactions with nature close to where people live, work, and socialize.

STEP 1: Identify nature-related value-based experiences through research and other means that result in positive emotional connections with nature.

1. Tactic: Conduct a comprehensive literature review to compile evidence of the importance of personal emotional connections to places and experiences.
Establishing an emotional connection or bond with nature is important to developing an ethic that can lead to positive behaviors toward the environment. An agency should periodically conduct a review of the literature on personal emotional connections to places and experiences. [Home to Us All: How Connecting with Nature Helps Us Care for Ourselves and the Earth](#) (Charles *et al.*, Children & Nature Network, 2018) is a good resource and synthesis of the importance of nature in people's lives.
2. Tactic: Develop methods to routinely measure program effectiveness.
Measuring program effectiveness is important to understanding whether goals and outcomes are being met and if adaptations are needed. Evaluating the role that events (e.g., sports shows) play versus immersive experiences (e.g., a paddling clinic) in developing nature-based interest, skills and competencies, can help an agency design effective programs. If an agency offers programs as a series with increasing outdoor engagement, an agency may want to track participation through those stages.

STEP 2: Identify target audiences, coalitions of partners, and communication networks that could provide value-added outdoor experiences.

1. Tactic: Evaluate how experiences with and without social support networks lead to behavioral changes.

Agencies should compile best practices and successful approaches that lead to the adoption of actions so they can be used to guide the development and implementation of programs that meet the diverse needs of broader constituencies. An understanding of how support structures do, or do not, lead to behavioral change is important to know so leadership and program managers can direct scarce resources appropriately.

Evaluation of the causative factors that lead to behavioral change should be conducted so assumptions can be avoided. The [Outdoor Recreation Adoption Model](#) is an approach to developing new pathways for constituencies to engage with the outdoors.

2. Tactic: Identify partners that provide outdoor experiences and gauge interest in collaborating.

Partners that provide outdoor experiences should be identified and, to the extent practical, agency programs adapted to facilitate alignment among partner and agency services and programs. Individual, group, or community motivations should be determined, and partners should be empowered to take ownership of programs and services when possible.

3. Tactic: Always leave constituents with the next step to continue and enhance their engagement.

Establishing a new positive emotional connection with nature will not be accomplished through one-and-done program offerings. Broader constituencies should be continually engaged and offered opportunities to take the next step in their journey to connect with nature and the agency.

ADAPT INFRASTRUCTURE

The Florida Fish and Wildlife Conservation Commission partners with the Public Access Services Office to plan and develop infrastructure that promotes wildlife-focused recreation opportunities on Florida wildlife management areas. This includes improved wayfinding signage, interpretive materials, recreational trails, and wildlife-viewing destinations.

STEP 3: Work with partners to develop value-based opportunities to create emotional connections with nature.

1. Tactic: Develop a diversity of opportunities that can be led by, or coordinated with, partners.

The agency should work with partners to provide services and programs to create emotional connections with nature that appeal to a variety of constituencies. Even small contributions by individuals and partners can have meaningful impact. Establishing a sense of place and community increases the chance that people will take meaningful actions.

2. Tactic: Regularly evaluate and adjust programs based on knowledge gained.

Programs should be continually evaluated to ensure positive emotional connections are being

created. Overcoming challenges may stretch an agency's current expertise. It is important to experiment, evaluate and adjust programs accordingly. Efforts should not be abandoned prematurely, as it may take some time to see results.

STEP 4: Deliver and test audience-specific communications strategies.

1. Tactic: Identify measurable outcomes associated with specific communications strategies to determine effectiveness.
Measures should be determined, and data collected, to evaluate whether outcomes are being met. Strategies should be tested once they are implemented to ensure they are reaching their targets and accomplishing their goals. Communications strategies should be modified or adapted if needed.
2. Tactic: Identify avenues through which target audiences are currently receiving information.
Agencies should identify how and from where target audiences are currently getting information and such avenues should be used, if possible. If information is not getting to intended audiences, then the methods should be adapted.

POLITICAL AND LEGAL CONSTRAINTS

BARRIERS:

1. Agency decision-making processes are used and influenced by a limited number of constituencies.
2. Lack of higher-level executive support for agency engagement with broader constituencies.
3. Agency governing bodies may not represent the nature-based values and outdoor interests of broader constituencies.
4. Lack of legislative support to engage and serve broader constituencies.
5. Policies, practices, legal authorities, and funding restrictions limit an agency's ability to serve broader constituencies.

BARRIER 1: AGENCY DECISION-MAKING PROCESSES ARE USED AND INFLUENCED BY A LIMITED NUMBER OF CONSTITUENCIES.

Fish and wildlife management has been defined as the process of making and implementing decisions to influence the interactions between people, animals, and habitats (Riley *et al.*, 2002). Decisions occur at many levels and determine policies, regulations, programs, and practices that govern how fish and wildlife are managed. Fish and wildlife agencies have legal requirements to involve the public in many of their decisions. Input from diverse constituencies can make such decisions better and help the agency fulfill its public trust responsibilities. Even decisions without a legal requirement to involve the public can be improved when broader constituencies are provided the opportunity to be involved. Public participation in agency decisions often involves a limited number of constituencies. Reasons for this include indifference, a lack of understanding or awareness of the decision-making process or its impacts, a lack of time, mistrust or lack of confidence in the agency or government in general, language barriers, and other factors. The lack of involvement by broader constituencies in agency decision-making can lead to reduced awareness of, public support for, and satisfaction in the agency and result in decisions that may not be fully reflective of larger public interests.

STRATEGY: MODIFY DECISION-MAKING PROCESSES AT ALL LEVELS TO BE INCLUSIVE, TRANSPARENT, AND COLLABORATIVE.

Fish and wildlife agencies make myriad decisions, some of which affect specific constituencies (i.e., setting harvest seasons and bag limits for fish and game) and others that affect larger public interests (i.e., protection of endangered species; regulation of invasive species). Such decisions can have lasting effects and affect the quality of life and recreational pursuits of constituents. The scope of decisions can vary from state- or provincewide to those that affect a single landowner or parcel of land. As public entities, laws, regulations, and policies dictate that the public be informed of and, in many cases, invited into decision-making processes. The degree to which the public chooses to participate varies depending on the subject, presence or capacity of constituency groups, and ability of the agency to reach and engage constituencies. Modifying decision-making processes can lead to greater inclusiveness, transparency, collaboration, and trust by the public.

STEP 1: Identify current decision-making processes and where and when constituencies are engaged in that process.

1. Tactic: Assess how constituencies currently engage in legal and planning decision-making processes.

To understand whether decision-making processes need to be modified, it is important to gain an understanding of the processes and how broader constituencies are currently engaged. A review of legal and planning processes can be done in-house or externally by a contractor or partner. A review should be free of bias and transparent. Because large agencies may have hundreds of decision-making processes, an agency may need to limit the scope of the review to the most impactful decision-making processes or those that are most likely to engage or affect broader constituencies.

2. Tactic: Identify key constituencies and describe how they currently, or can potentially, engage in decision-making processes.

Under the public trust doctrine, agencies have a responsibility to engage and serve all constituents. Understanding how individuals or groups currently engage, or may engage, will help the agency identify gaps or deficiencies in engagement. Agency staff and partners can collaborate to identify and acquire contact information for key constituencies. The [Public Participation Spectrum](#) developed by the International Association of Public Participation could be a useful tool to help define stakeholders' roles in a public participation process.

STEP 2: Formally assess if, how, and why constituencies engage in the decision-making process.

1. Tactic: Assess motivations and barriers to constituent participation in decision-making processes.

Constituents engage in decision-making processes for many reasons and it is important to understand their motivations as well as the reasons they do not engage. These motivations could include advancement of an agenda or mission, desire to network with agency staff or leadership, or an interest in exercising public activism. There are a number of methods that could be used to assess motivations and barriers to constituency involvement in agency decision-making. These could include a search of relevant literature or original research using mail, phone or internet surveys, focus groups, or interviews. Social scientists should be involved

or consulted to ensure the results of an assessment are valid.

2. Tactic: Determine desired level of constituency participation in decision-making process.
Engagement in agency decision-making can take many forms. It can include a one-time comment on a policy or regulation or consist of a longer, more drawn out process requiring months or even years of review and input. An agency may seek technical comments on a proposed regulation or simply support. Because not all constituencies will be able to contribute to agency decision-making in the same way, it is important to identify the desired or preferred level of engagement. The benefits of engaging broader constituencies will need to be balanced with the need to make efficient, timely, and sound decisions that are in the best interest of people and wildlife.
3. Tactic: Join or establish a community of practice for constituency engagement.
Public engagement is a discipline that is not unique to the fish and wildlife profession. Networking with others who participate in constituency engagement, both inside and outside an agency, can serve as a means to share practices and innovations and provide support. Some agencies may have established communities of practice that regularly meet, whereas there may be a need to form a new practice where none exists. The International Association of Public Participation has a number of regional and state/provincial [chapters](#) that could serve this purpose.

STEP 3: Identify opportunities to increase constituency involvement in the decision-making process.

1. Tactic: Develop a plan to improve outreach to nonparticipating constituencies.
An agency may need to develop new approaches or strategies to reach nonparticipating constituencies. A plan, using targeted outreach, can help overcome barriers to participation. An agency should review past engagement strategies, identify successful tactics previously used and consult counterparts in other agencies for advice. New approaches to engagement could include virtual participation at public meetings or forums, engaging constituencies in places and at times convenient to them, holding regularly scheduled listening sessions across the state or province, using social media for outreach, making use of census and other data to target audiences and selecting meeting topics that appeal to broader constituencies.
2. Tactic: Identify organizations that can help reach nonparticipating constituencies.
An agency's capacity or standing may make it difficult to reach certain desired constituencies through traditional communication channels. Organizations that represent the interests of key constituencies might be more effective avenues to reach and communicate the importance of participating in agency decision-making. Organizations that could be engaged include local conservation or recreation groups; professional, religious, or community organizations; academic institutions; or business groups.
3. Tactic: Identify and evaluate potential changes to legal and planning processes.
Making changes to legal and planning processes to broaden constituency engagement can be

complex and time-consuming. Identification of potential changes and an evaluation of the impact of those changes is important. Changes may require approval by an agency's governing board or even legislature. Providing a clear justification for, and understanding of, potential unintended consequences is also paramount. Potential changes should be vetted with constituencies that would benefit from increased involvement in agency decision-making as well as those who might feel as though they are losing influence.

STEP 4: Make decision-making processes more inclusive and transparent.

1. Tactic: Where necessary, change legal and planning processes.
Once agency leadership agrees to make changes to legal and planning processes, the changes should be made in a transparent and timely manner. If the process to make changes takes a long time or encounters obstacles, key constituencies should be informed. Constituencies who would benefit from the changes could serve as a guiding coalition to support implementation of the changes.
2. Tactic: Conduct outreach to improve accessibility to diverse constituencies.
Once changes are made to the agency decision-making process, those changes should be communicated to thought leaders, the public, and constituency organizations. The new approaches or strategies developed to engage broader constituencies should be employed to help get the word out and build anticipation for future engagement.
3. Tactic: Collaborate with external organizations to engage nonparticipating constituencies.
One of the most effective means for reaching broader constituencies may be through constituency organizations. An agency could use existing relationships or build new relationships with the leaders of key constituency groups. Durable relationships built on mutual respect, trust, and shared purpose is essential. Meeting constituency groups at their regular meeting locations or in places and at times convenient to them will help build a lasting commitment to collaboration.

STEP 5: Assess if diverse constituencies are more engaged in the decision-making process.

1. Tactic: Develop metrics for measuring broader constituency engagement.
The use of quantitative and qualitative measures to assess and track constituency engagement will help determine whether progress is being made and if adaptive changes are needed. Measures could include the number and diversity of existing and new constituencies who engage in agency decision-making processes, the level of their engagement, and their satisfaction. Measures should be relatively easy and inexpensive to collect, analyze, use, and report and be meaningful to determine if a change in course is needed.
2. Tactic: Measure constituency engagement and modify processes as needed.
Once an agreed-upon set of measures are identified, a process to collect data on constituency involvement in decision-making should be set in place. The timeframe for collecting and reporting data should be determined and those responsible for data collection and reporting

should be identified. Successful outcomes or lessons learned should be shared and communicated within the agency and among its partners.

BARRIER 2: LACK OF HIGHER-LEVEL EXECUTIVE SUPPORT FOR AGENCY ENGAGEMENT WITH BROADER CONSTITUENCIES.

Higher-level executives (i.e. commissions, boards, cabinet secretaries, or governors) may not be supportive of engaging broader constituencies if engagement would disrupt or change agency work, cause concern to key constituencies, or be politically risky. Higher-level executives may also disagree with the need for, or urgency of, engaging with broader constituencies.

STRATEGY: SECURE EXECUTIVE-LEVEL SUPPORT TO ENGAGE AND SERVE BROADER CONSTITUENCIES.

Executive-level support for broader engagement may be necessary for an agency to embark on an initiative to engage broader constituencies. The standing and influence of executive-level leaders could help mitigate any resistance to broader engagement by traditional constituencies or agency staff and help new constituencies see the value of engaging with the agency. An executive-level leader who is clear and outspoken in their support about the need to engage and serve broader constituencies would set a positive tone for change.

STEP 1: Identify reasons/factors for lack of executive support.

1. Tactic: Confirm assumptions and identify reasons for lack of executive support.
Agency staff or partners may hold assumptions that an executive leader does not support engagement with broader constituencies. Such assumptions need to be tested to ensure they are accurate. The executive-level leader, their staff, and associates should be consulted to understand whether there are reasons (and their basis) for not supporting broader engagement.

STEP 2: Develop and implement strategies to address reasons/factors for lack of executive support.

1. Tactic: Consult with peers (within and out-of-state/province) for advice.
Peers in other agencies and organizations within and beyond jurisdictional boundaries should be consulted for advice on addressing the concerns of executive leader(s). Lessons learned from past interactions with broader constituencies or guidance on political risks would be useful.
2. Tactic: Assess benefits and potential risks to engaging broader constituencies.
Engagement with broader constituencies can provide benefits such as broadening support for the agency or bringing new sources of funding, but it can also pose potential risks such as alienating supportive constituencies. An objective assessment of benefits and risks should be done to determine positive attributes and challenges for broader constituency engagement.

3. Tactic: Establish a team to develop an approach or strategy to increase executive support for engaging diverse constituencies.

A team made up of agency staff and/or representatives from key constituencies should be assembled to develop an approach or strategy to increase the executive's support for broader engagement. The strategy should identify specific actions needed to overcome factors that impede support. The plan should include actions that are achievable and tailored to the current executive but also relevant to future leaders. When possible, the actions should avoid creating new, or heightening existing, tensions between the agency and executive-level leader(s).

4. Implement, monitor, and evaluate the strategy.

Upon implementation, the strategy should be monitored and routinely evaluated to determine whether it was successful and if not, why. The strategy may need to be revised or adapted if the actions are unsuccessful or if there is a personnel change among executive-level leadership.

STEP 3: Ensure executive leadership understands and values the need to serve all constituencies.

1. Tactic: Communicate the scope and importance of engagement to meet the agency's public trust responsibilities.

Although most agency staff have an understanding of their public trust responsibilities, the full scope of the agency's obligations may not be evident to all executive-level leaders. Although conservation and management of game species is a major focus of fish and wildlife agency work, these agencies also have responsibility for most other species of fish and wildlife. A thorough treatment of the implications of the public trust doctrine to fish and wildlife is available in a [technical review](#) by The Wildlife Society and guidance for agencies to apply the public trust doctrine can be found in the [Wildlife Governance Principles](#) (Decker *et al.*, 2016).

2. Tactic: Provide executive-level leader with evidence that engaging broader constituencies has benefits or that costs can be mitigated.

Fish and wildlife agencies strive to work on behalf of and provide service to all members of the public. In many states and provinces, the core of agency support is from hunters, anglers, and wildlife viewers. Engaging broader constituencies that use the outdoors in other ways or benefit indirectly from fish and wildlife conservation can expand support for the agency. As public and political support for an agency grows, those resistant to change may come to understand the benefits of broader engagement.

3. Tactic: Agency director and executive leadership jointly engage broader constituencies.

Beyond mere agreement that broader engagement is necessary or the right course of action, gaining the active support of an executive and their team can be essential to engaging broader constituencies. A higher-level executive who is willing to work with agency leadership to do outreach and build relationships with broader constituencies is the most desirable outcome.

BARRIER 3: AGENCY GOVERNING BODIES MAY NOT REPRESENT THE NATURE-BASED VALUES AND OUTDOOR INTERESTS OF BROADER CONSTITUENCIES.

Many members of the public who serve on agency commissions/boards/councils are avid hunters and anglers and are attracted to agency governance because of their passion for these pursuits and support for the agency. Some members of the public may perceive an agency commission/board/council as favoring or prioritizing issues related to hunting, fishing, trapping, and management of game species. There may be a perception by some constituencies that commissions/boards/councils are less interested in, or have less understanding of, the needs of nongame and users who participate in other forms of outdoor recreation or nature appreciation. In addition, the demographic makeup of commissions/boards/councils may not reflect a state's or province's population, which can be perceived as an obstacle to the commission/board/council relating to, understanding, and collaborating with diverse audiences.

STRATEGY: BUILD GREATER UNDERSTANDING OF AND RESPONSIVENESS TO DIVERSE NATURE-BASED VALUES OF BROADER CONSTITUENCIES IN AGENCY GOVERNING BODY.

Because of their statutory responsibilities, agency commissions/boards/councils must spend a significant amount of time reviewing and approving regulations related to hunting, fishing, trapping, and boating. These decisions may have less relevance to the majority of constituents who do not hunt, fish, or trap but they are still important. Routinely briefing or asking commissions/boards/councils to act on issues that are important to broader constituencies will help the larger public see the value and importance of fish and wildlife agencies and may inspire greater participation and support.

STEP 1: Complete a synthesis of the diverse nature-based values and outdoor interests of all constituencies.

1. Tactic: Acquire and synthesize information on nature-based values and outdoor interests and link them to demographic and social trends.

It is important to understand the needs and outdoor interests of broader constituencies and the demographic trends that may be influencing those interests. The [Outdoor Participation Report](#), the [Nature of Americans Report](#), the [National Survey of Fishing Hunting and Wildlife Associated Recreation](#), [General Social Survey](#), state- or province-specific data, demographic statistics from the [U.S. Census Bureau](#) and other sources of information should be reviewed and synthesized into a report for policymakers and the public to inform them about changing trends.

STEP 2: Present the synthesis and discuss issues important to broader constituencies with the agency governing body to improve awareness, responsiveness, and decision-making.

1. Tactic: Present the results of the synthesis to agency governing body.

Once compiled, the synthesis should be made available to commissions/boards/councils and the results presented in a public setting. A discussion with representatives from diverse outdoor interests could lead to a greater understanding of their needs and interests and how these

relate to the agency mission.

2. Tactic: Routinely bring issues and concerns of broader constituencies to the attention of the agency governing body.

Public meeting and forums held by commissions/boards/councils often have a large part of their agenda devoted to topics related to hunting, fishing, trapping, and management of game species. Because of their regulatory authority, these issues are important and need to be deliberated in a public forum. Routinely inviting agency staff, partners, academics, and representatives of diverse constituencies to report on other issues and concerns can provide a motivation for broader constituencies to participate in public meetings and engage with the agency.

PROVIDING INFORMATION

The Tennessee Wildlife Resources Agency provided its commission with an overview of the biodiversity of the state and then created an episode of the WildCast audio and video series (<https://www.tn.gov/twra/stay-connected/tennessee-wildcast.html>) on the subject.

STEP 3: Increase agency governing body understanding of and responsiveness to the values and interests of broader constituencies.

1. Tactic: Develop relationships with and collaboration between agency governing body and diverse constituencies.

Leaders and members of organizations that represent or support hunters, anglers, and trappers often have a unique relationship with and access to agency commission/board/council members. These governing bodies should seek out the expertise of, develop relationships among, and explore opportunities to collaborate with the leaders of diverse conservation and outdoor recreation organizations.

2. Tactic: Work with diverse constituencies to identify or support agency governing body nominees who can represent the values and interests of broader constituencies.

The selection process and composition of commission/board/council members varies widely by state or province. Governing bodies may allocate seats (formally or informally) across regions and with a set number of seats reserved for interests such as private landowners, urban/rural residents, agriculture, etc. Special consideration may be given to prospective members who hunt and fish. The process for selecting members of agency governing bodies may fall to a governor, legislative body, or advisory committee. Involvement of broader constituencies in the nomination process could help build broader support and ensure governing bodies have the expertise and experience to work on a broad suite of issues important to traditional and broader constituencies.

BARRIER 4: LACK OF LEGISLATIVE SUPPORT TO ENGAGE AND SERVE BROADER CONSTITUENCIES.

In most states or provinces, legislatures play an important role in the governance of fish and wildlife agencies. Legislatures may approve budgets, set regulations, and establish policies. The level of legislative control or oversight can vary by state or province. Engaging broader constituencies may not be supported by some legislators or legislative committees due to concerns that a fish and wildlife agency will be influenced by, or take positions counter to, legislative intentions and shift agency priorities away from core responsibilities such as management of hunting and fishing.

STRATEGY: BUILD SUPPORT AMONG LEGISLATORS FOR THE AGENCY TO ENGAGE AND SERVE BROADER CONSTITUENCIES.

Legislative support may be needed or desirable before an agency begins an initiative to engage broader constituencies. Building support with key legislators and/or legislative committees of jurisdiction could be a critical first step that will ensure agency leaders have the political support and resources needed to engage broader constituencies.

STEP 1: Identify reasons/factors for lack of legislative support.

1. Tactic: Confirm assumptions and identify reasons for lack of legislative support by consulting with legislators and/or their staff and partners.

Agency staff or partners may hold assumptions that a key legislator(s) or legislative committee does not support engagement with broader constituencies.

These assumptions need to be tested to ensure they are valid.

The legislator or committee, their staff, and associates should be consulted to understand whether such assumptions are valid and, if so, the legislator or committee's reasons for not supporting broader engagement.

MEETING LAWMAKERS

The Indiana Division of Fish and Wildlife hosts an event at the Indiana Statehouse to engage and educate lawmakers and the public in wildlife conservation.

STEP 2: Develop and implement a strategy to address reasons/factors for lack of support.

1. Tactic: Consult with peers for advice.

Consult with peers in other organizations (within and out-of-state/province) for advice and lessons learned on how to gain the support of legislators for broader engagement.

2. Tactic: Assess benefits and potential risks to engaging broader constituencies.

Engagement with broader constituencies can provide benefits such as broadening support for the agency or bringing in new funding sources, but can also pose potential risks such as alienating core constituencies who may be resistant to change. An objective assessment of benefits and risks can help an agency plan constituency engagement and proactively address

potential conflicts.

3. Tactic: Establish a team with key constituencies to develop an approach or strategy to increase legislative support for engagement.

A team made up of agency staff that includes key constituencies that represent diverse interests and perspectives should be organized to develop an approach or strategy to increase legislators' support for broader engagement. The approach or strategy should identify actions that can be taken to overcome factors that impede support. Actions may include sharing data that demonstrates the desire of broader constituencies to engage or outreach to dispel misconceptions about their motives or intentions. The strategy should be adaptable and able to address concerns by individual legislators, subcommittees, full committees, or an entire legislative body.

4. Tactic: Implement, monitor, and evaluate the approach or strategy.

Upon implementation, the approach or strategy should be monitored and routinely evaluated to determine whether it was successful and, if not, why. The approach or strategy may need to be revised or adapted to meet changing conditions such as when new legislators take office or if a new issue or conflict arises that changes the political climate.

STEP 3: Ensure key legislators understand and value the need to serve all constituencies.

1. Tactic: Provide legislators with evidence that engaging broader constituencies has benefits.

Engaging broader constituencies can increase public support for fish and wildlife agencies and conservation. Legislators may benefit by having more of their constituents engaged with and served by their fish and wildlife agency, resulting in improved public service and potentially less conflict.

2. Tactic: Ask legislators to offer their support and take appropriate actions to engage broader constituencies.

Beyond just agreement that broader engagement is necessary or the right course of action, gaining the active support of legislators can be critical to engaging broader constituencies. Legislative bodies can serve as a forum to help agencies engage with broader constituencies by holding hearings and participating in agency events. A legislative body that can provide resources (e.g., funding, staffing) to support an agency's efforts to reach broader constituencies is the most desirable outcome.

3. Tactic: Work with broader constituencies to communicate to legislators that broader engagement has benefits.

Broader constituencies who benefit from increased engagement and access to their fish and wildlife agency should communicate the positive benefits of these new relationships to their legislators.

TALKING ECONOMICS

The Massachusetts Division of Fisheries and Wildlife developed a fact sheet on the economic value of wildlife and outdoor recreation and shared it with legislators.

BARRIER 5: POLICIES, PRACTICES, LEGAL AUTHORITIES, AND FUNDING RESTRICTIONS LIMIT AN AGENCY'S ABILITY TO SERVE BROADER CONSTITUENCIES.

There are differences in the scope of management authority for fish and wildlife among states and provinces. Some fish and wildlife agencies lack authority over plants, insects, marine species, or other taxa. Many agencies enter into agreements with the U.S. Fish and Wildlife Service under the Endangered Species Act and/or administer state listing statutes that do not always overlap with the federal Endangered Species Act list. Agency policies and practices may also place limitations on how certain funding sources are used which can affect how the agency is perceived by broader constituencies.

STRATEGY: MODIFY POLICIES, PRACTICES, LEGAL AUTHORITIES, AND FUNDING RESTRICTIONS TO BETTER SERVE BROADER CONSTITUENCIES.

To serve broader constituencies, an agency may need to modify certain policies, practices, or legal authorities. These modifications may require changes to a statute by a legislature, policy by a commission/board/council, or require a directive by an agency leader. These changes could play an important role in demonstrating that an agency is comprehensive in its focus and jurisdiction and able to serve all members of the public.

STEP 1: Examine existing policies, practices, legal authorities, and funding restrictions and the reasons behind their limits.

1. Tactic: Review policies, practices, legal authorities, and funding restrictions and their purpose and identify gaps or barriers that inhibit broader engagement.

A thorough review of informal and formal policies, practices, legal authorities and funding restrictions will help an agency identify where there are opportunities to make changes that would enhance engagement with, and service to, broader constituencies. During the review, it is important to identify why a policy, practice, legal authority, or funding restriction is in place. For policies, practices, legal authorities, or funding restrictions that have been in place for a long time, this may be difficult to determine. An agency may want to interview long-serving staff, retirees, partner organizations and others with historical or institutional knowledge of the agency.

2. Tactic: Consult with peers in other state or provincial agencies and other organizations to gain insight into how policies, practices, legal authorities, and funding restrictions affect broader engagement.

Because policies, practices, legal authorities, and funding restrictions vary among fish and wildlife agencies, it would be prudent to consult with peers from other states or provinces and other organizations to understand the benefits and potential risks to making changes.

STEP 2: Identify changes or modifications to legal authorities, policies, practices, and funding restrictions necessary to serve the needs of broader constituencies.

1. Tactic: Assemble a team including representatives of broader constituencies to develop recommendations and rationale to modify policies, practices, legal authorities, and funding restrictions.

Making changes to informal and formal policies, practices, legal authorities, and funding restrictions could be controversial. Working with broad constituencies and key supporters would help ensure that any recommended changes are done transparently and not create conflict or alienate existing or potential partners. An agency leader may want to inform or involve executive-level leaders and/or key legislators early in the process.

STEP 3: Identify and understand the consequences of modifying policies, practices, legal authorities, and funding restrictions necessary to serve the needs of broader constituencies.

1. Tactic: Conduct a transparent analysis to identify benefits, risks, challenges, and operational effects of the recommendations.

Identification of the potential benefits, risks, challenges, and impacts to the operation of an agency is critical. Potential positive and negative consequences should be fully assessed in an open and transparent manner.

OPEN HOUSE

STEP 4: Develop and implement strategies to modify policies, practices, legal authorities, and funding restrictions.

1. Tactic: Identify changes that can/should be pursued.

Once the risks and benefits of potential changes are identified, the changes that have sufficient support and are most likely to be achieved should be identified. The timing for some changes may not be right or resistance could be too strong for other changes. The list of potential changes should be periodically reviewed. Model statutory language or preferred policies and practices may be available or could be developed by the Association of Fish and Wildlife Agencies, state sportsmen's caucuses or other entities.

The Missouri Department of Conservation hosts open houses to inform the public and offer an opportunity for input on changes to policies and regulations.

2. Tactic: Develop timeline and identify the steps required to pursue changes.

Once it is decided what changes can or should be pursued, then a timeline and process should be developed. Changes that require legislative action could take multiple legislative cycles so it is important to plan work around the legislative calendar and involve agency staff that can make a long-term commitment to the process.

3. Tactic: Develop and implement a strategy to execute the changes.

A team that includes representatives from interested constituencies or at least involves their input should be organized to develop a strategy to implement the changes. Broader constituencies can share the work of developing and implementing the strategy, communicating the benefits changes will bring, and addressing conflict.

4. Tactic: Monitor and evaluate implementation of the strategy.

Upon implementation, the strategy should be monitored and routinely evaluated to determine whether it was successful and, if not, why. The strategy may need to be revised or adapted to meet changing conditions. Successes and failures should be shared with peers within and out-of-state/province.

CONCLUSION

Development and review of this Relevancy Roadmap took more than a year to complete and involved more than sixty individuals from state, provincial, and federal agencies, as well as the private sector. Despite the scope of this undertaking, it was not possible to involve or consult with every expert, make use of all resources, or review all the relevant literature. This Roadmap is intended to be a starting point, not an endpoint on a long journey. The editors and contributors expect the barriers, strategies and tactics to be modified, augmented and/or changed in the coming months and years as they are applied and tested by practitioners. As the Roadmap is implemented, lessons learned, and new resources are developed or discovered, they will be incorporated into subsequent versions. In this way, the Relevancy Roadmap can serve as a clearinghouse to help natural resource management agencies take action to more fully engage broader constituencies. The Roadmap is intended to be a living document that will inform or assist change efforts already underway or serve as a catalyst where change has not yet begun.

The work of making impactful change is not easy and success can be hard to measure. Change is often nonlinear and there are factors outside the sphere of control of an agency leader that will, at times, slow or impede progress. The Roadmap has been crafted so **all supporters** of fish and wildlife conservation can see the necessity and benefits of broader engagement. Increasing the relevancy of fish and wildlife is not a zero-sum game and any future conservation success will be built on the strong foundation laid during the past millennium by dedicated public servants, the engaged public (particularly hunters and anglers), and the indispensable contributions of private conservation organizations. The fate of our treasured fish and wildlife, more than ever before, rests on our ability to collaborate as one community to garner the support and participation of a much larger swath of the public.

An important element of Roadmap implementation is communication, both internally and externally. Transparency and frequent, clear, and honest communication are essential. In an era where facts are easily lost or ignored and when disinformation (intentional or unintentional) can overwhelm the truth, champions of relevancy need to be strategic communicators. Assumptions about who might be supportive or unsupportive of a change initiative should be validated and efforts should be undertaken to resolve conflict in a timely manner when there is resistance. Developing a guiding coalition that can provide the support and inertia for change will be an essential ingredient.

The Roadmap will eventually be housed on a dynamic website with related information and tools. Implementation of the Roadmap will benefit from national coordination and leadership. We recommend a team be assembled to serve in that capacity, to provide implementation support, to be a convener, provide training, and lead revision to ensure the Roadmap is updated.

In 1903, Horatio Nelson Jackson, a physician with a passion for cars, and his driving partner Sewall Cracker, a bicycle racer and mechanic, made a \$50 bet that they could become the first two people to drive an automobile across the United States. They had no paved highways, roadmaps, or street signs for their journey from San Francisco to New York City and their car did not even have a windshield. Despite these challenges and many naysayers who said they would never succeed, they completed the trip in 63 days. While providing an account of the trip Horatio said, “You can’t do today’s job with yesterday’s methods and be in business tomorrow.” Not bad advice for those of us who work in the “business” of fish and wildlife conservation.

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APPENDICES

Appendix A: Glossary

Barrier – Conditions (structurally, culturally, fiscally, administratively) that are or might be impeding the engagement and service to broader constituencies.

Broader Constituency(ies) – Individuals and groups of people who are not currently engaged in a meaningful way in conservation or with a conservation agency. These might include diverse ethnicities and backgrounds, youth, the elderly, people with disabilities, new immigrants, people of various economic or educational backgrounds, and people who live in urbanized communities with limited or no access or personal connection to fish or wildlife.

Fish and Wildlife Relevancy – Conservation that is essential or connected to important aspects of people’s lives such as their physical, mental, and spiritual health and well-being, protection from severe weather, education, and economic prosperity.

Nature-based value(s) – Kellert (2014) describes eight values related to nature, or what he calls biophilia: affection, attraction, aversion, control, exploitation, intellect, spiritual, and symbolic association with the natural world.

Public Engagement – Intentional, meaningful interactions between natural resource management agencies and their constituents that provide opportunities for meaningful engagement with and management of wildlife and other natural resources.

R3 – Refers to the recruitment, retention, and reactivation of outdoor users. The term is also used to represent a set of theories and best practices to creating customer pathways to outdoor participation popularized in the National Hunting and Shooting Sports Action Plan. <https://cahss.org/what-is-r3/>

Relevancy – Pertaining to programs, practices, and policies that increase an organization’s engagement with and service to broader constituencies.

Social Science – a branch of science that deals with the institutions and functioning of human society and with the interpersonal relationships of individuals as members of society (Merriam-Webster).

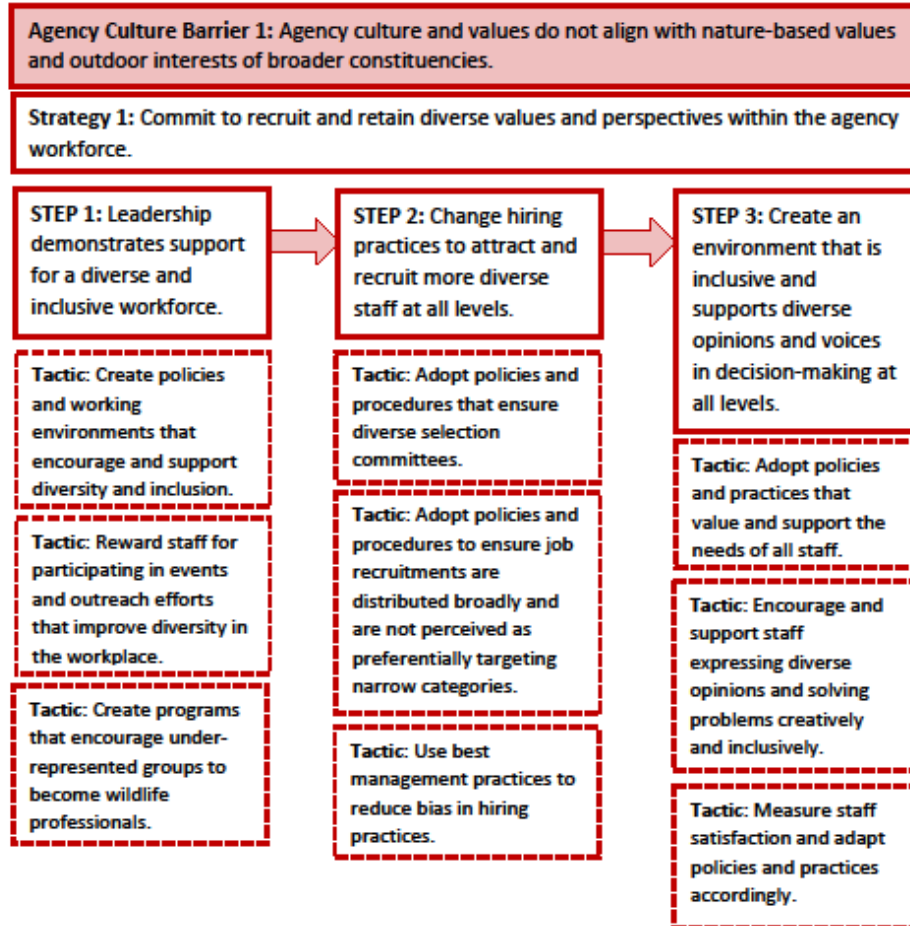
Strategy - A directed course of action or plan to achieve a specific outcome.

Tactic - A specific action or activity to implement a strategy.

Value Orientations - Expressions of fundamental values revealed through a pattern of basic beliefs, behaviors, and behavioral intentions.

Appendix B: Barriers, Strategies, Steps, Tactics

"Maps" of all barriers, strategies, steps, and tactics developed to engage and serve broader constituencies. Note: there are more details and case studies included in the text of the Roadmap.





Agency Culture Barrier 1: Agency culture and values do not align with nature-based values and outdoor interests of broader constituencies.

Strategy 3: Prioritize the development of partnerships that engage broader constituencies.

STEP 1: Gain an understanding of and appreciation for the values and interests of broader constituencies.

Tactic: Use social science to understand the values and needs of broader constituencies through application of existing research and engagement with partners.

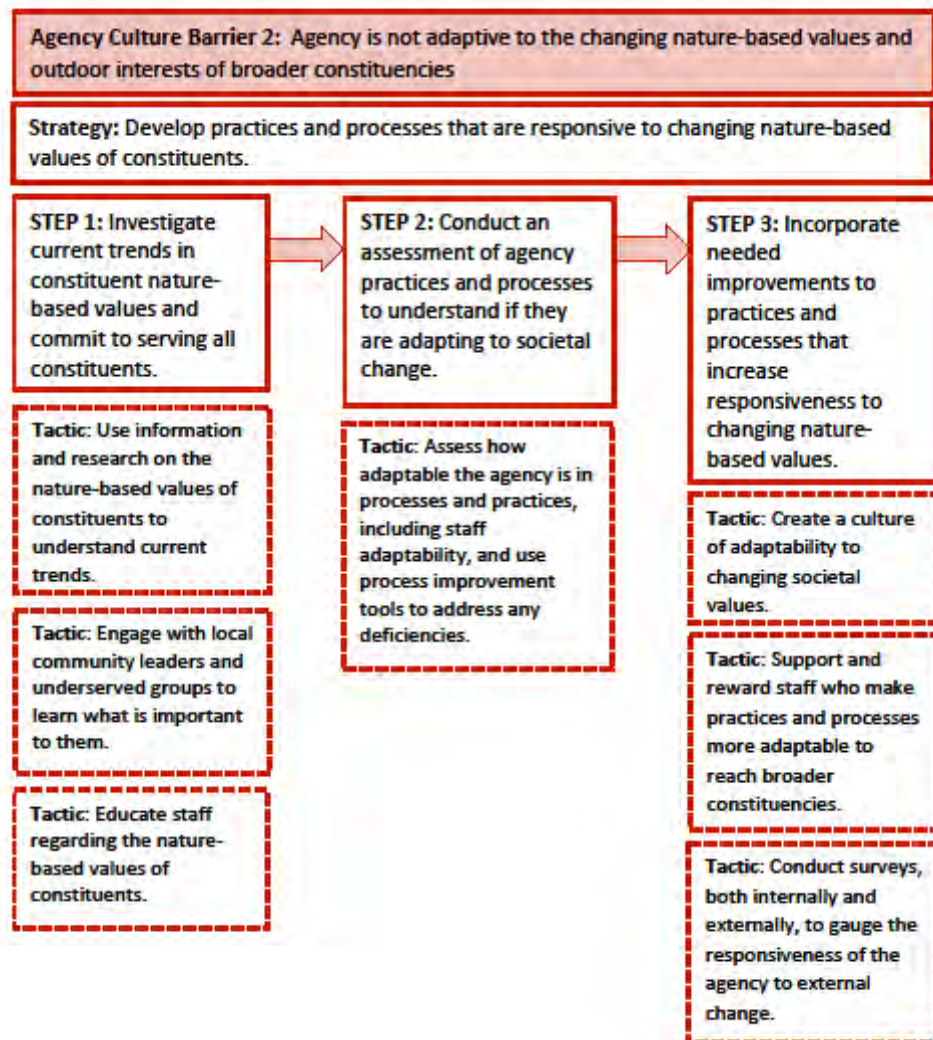
Tactic: Determine the level of participation desired by constituents and the ability of the agency to meet those expectations.

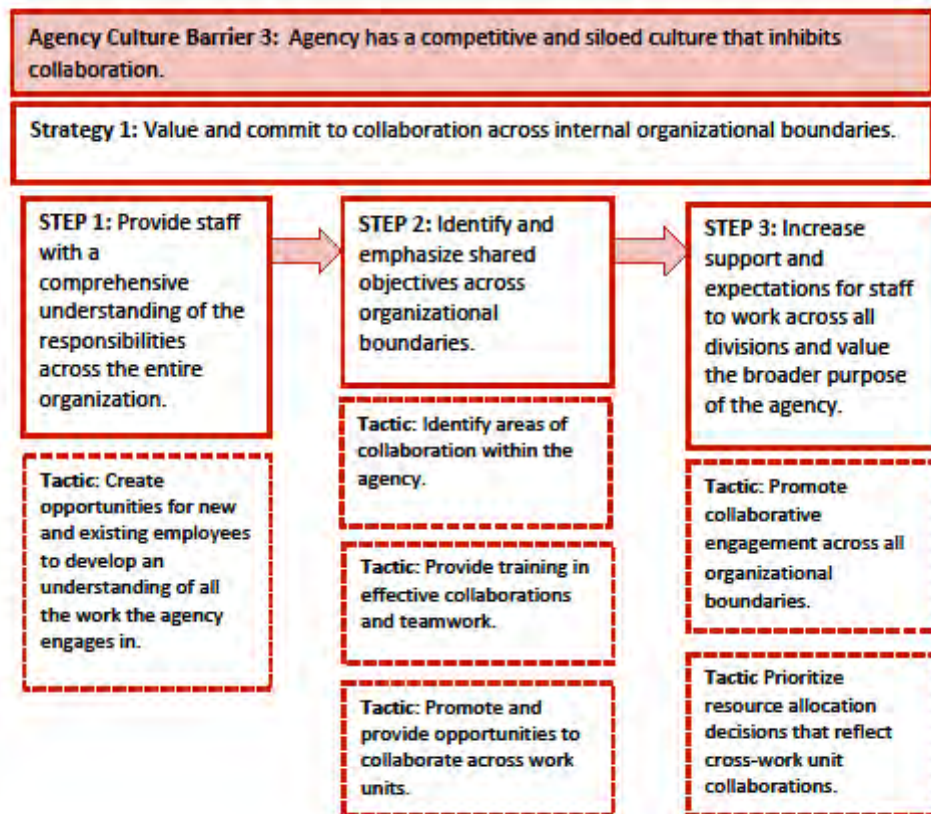
STEP 2: Engage in meaningful partnerships with diverse constituencies.

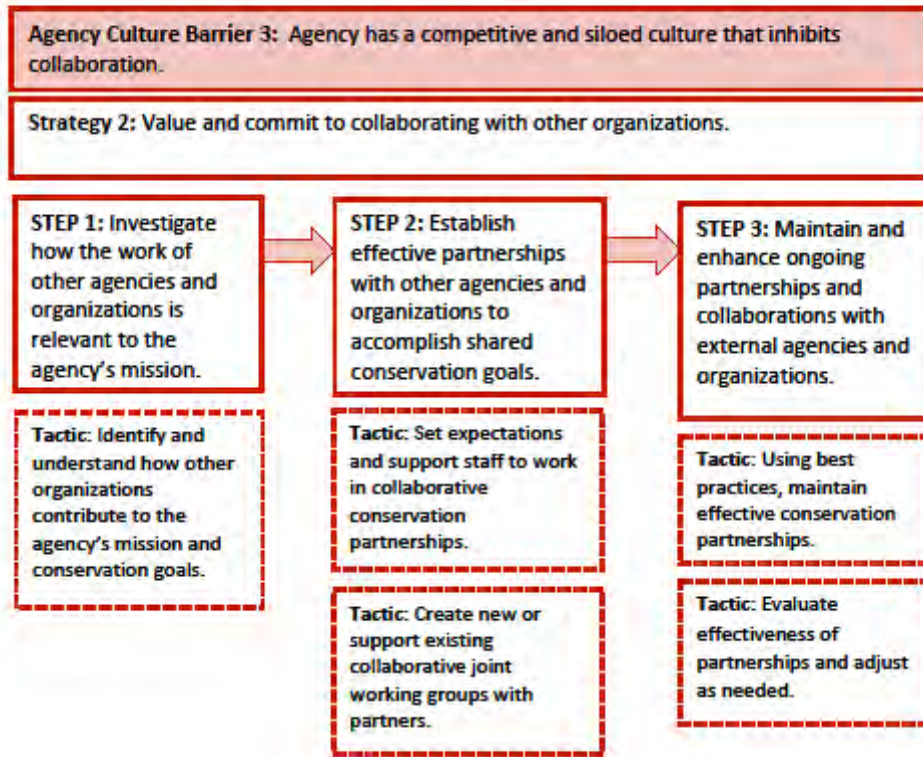
Tactic: Allocate staff and resources to broader engagement.

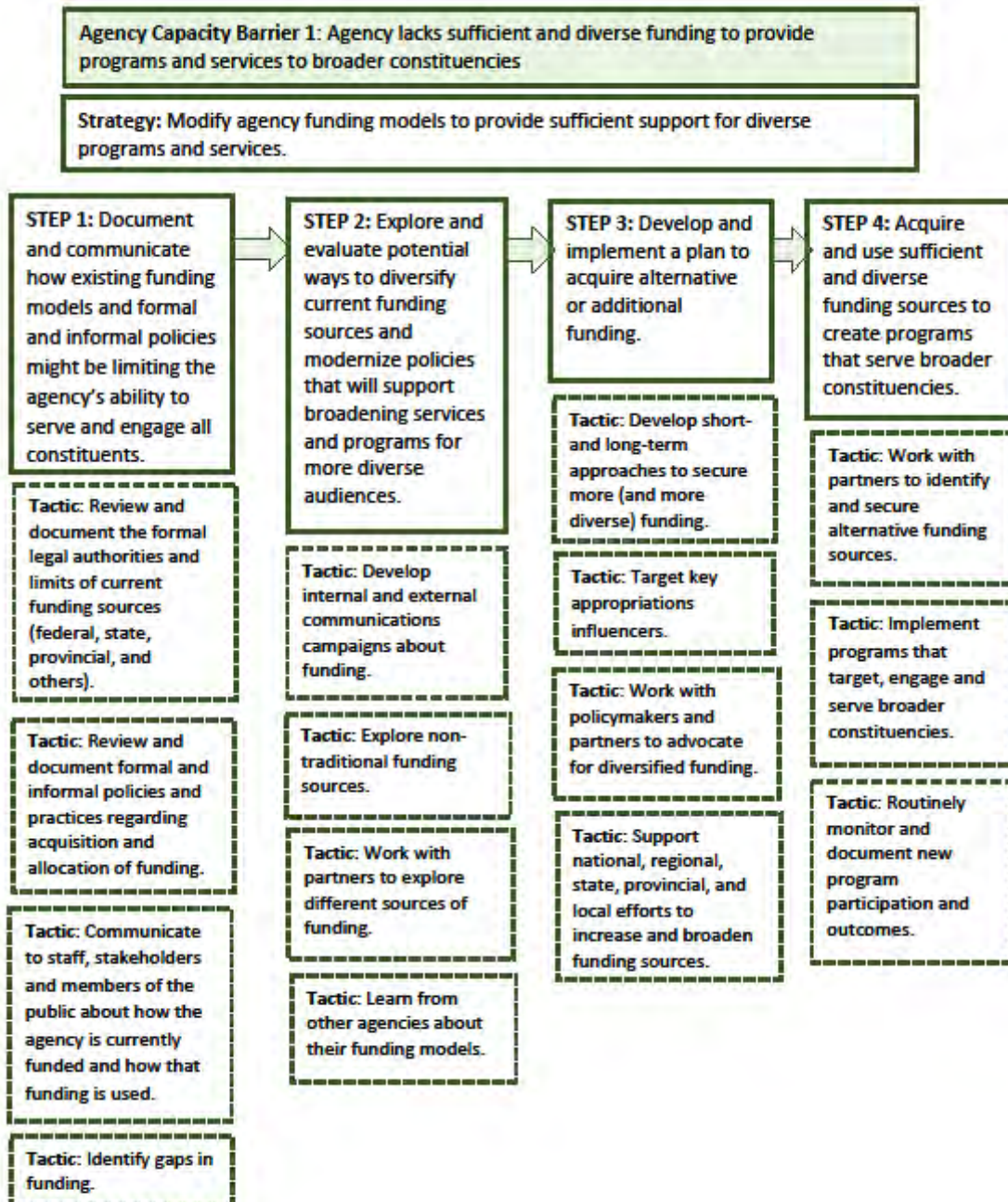
Tactic: Develop and cultivate new partnerships.

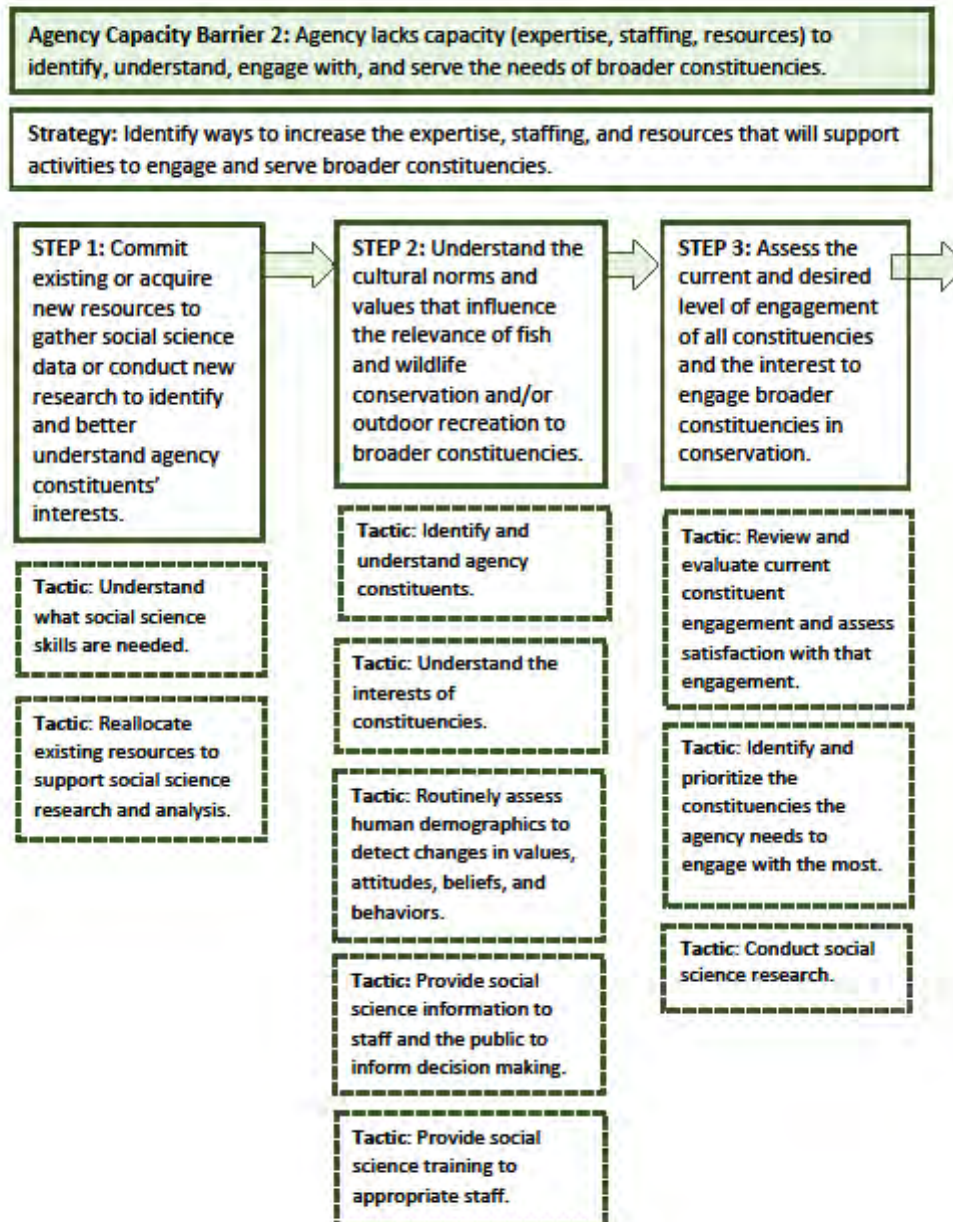
Tactic: Evaluate partnerships and adjust as needed to better reflect changing societal values and conservation goals of the agency.

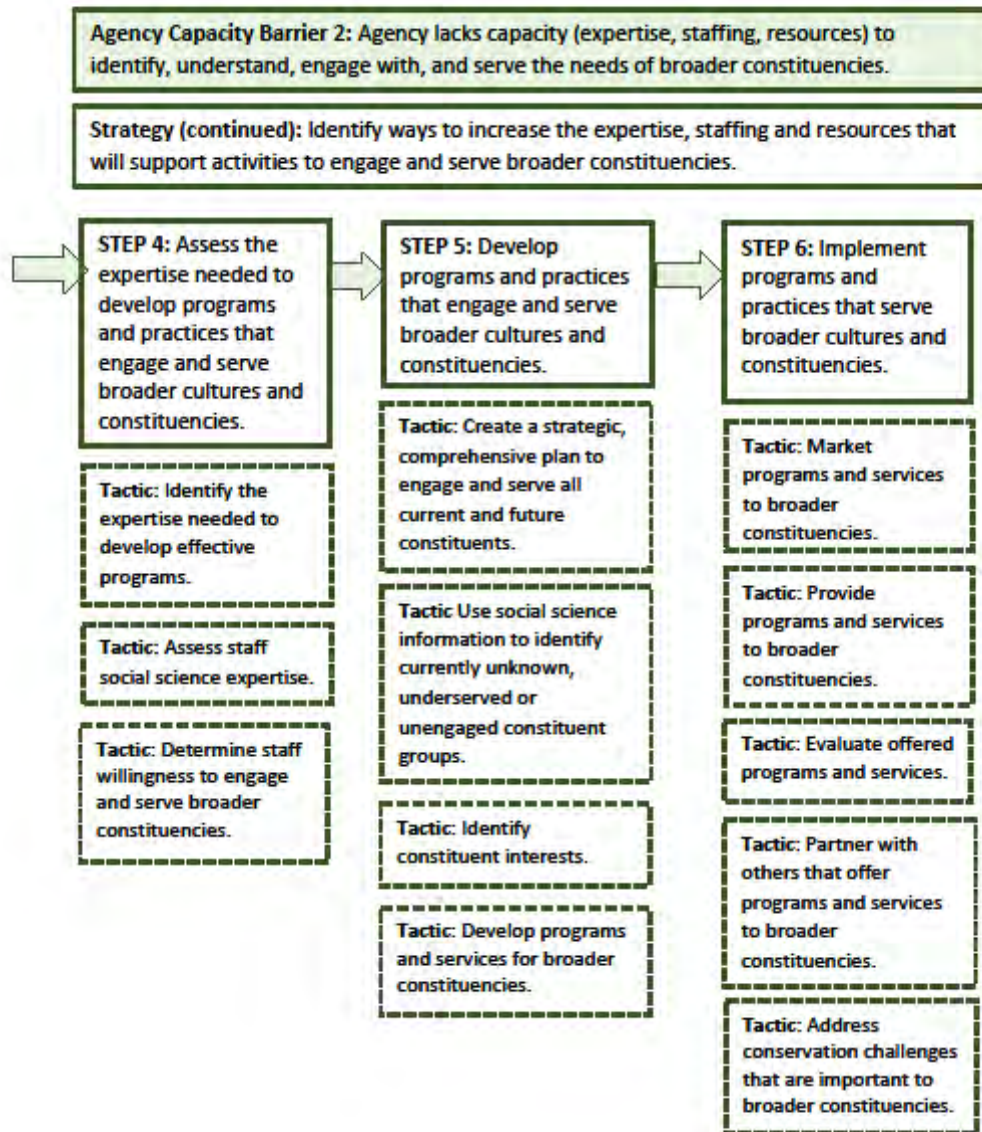


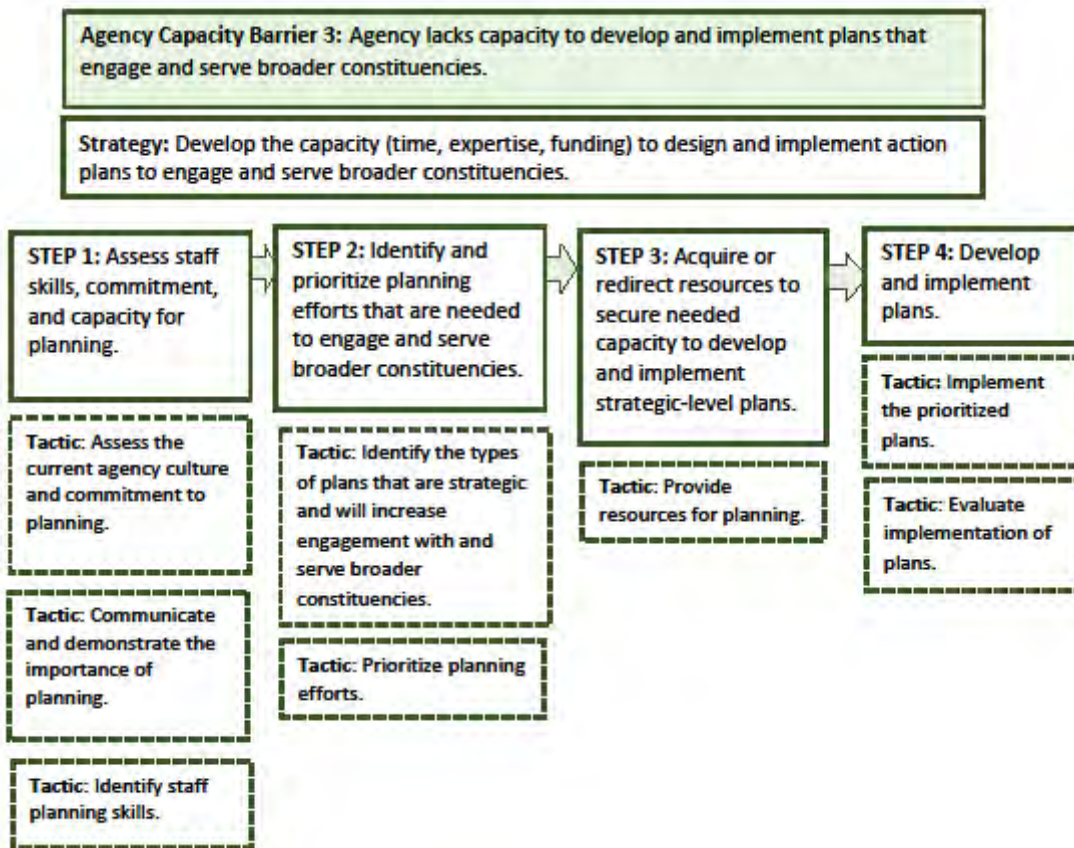












Agency Capacity Barrier 4: Agency lacks capacity to create and sustain effective partnerships to serve broader constituencies.

Strategy: Prioritize creating and maintaining partnerships that effectively expand agency capacity to deliver programs and services to broader constituencies.

STEP 1: Identify the benefits and opportunities of engaging with, and serving, broader constituencies that are provided by expanded and diverse partnerships.

Tactic: Explore and document the benefits and opportunities that partnerships might provide to increase engagement with broader constituencies.

STEP 2: Identify and engage with partners whose mission(s) align with the agency's mission to engage and serve broader constituencies.

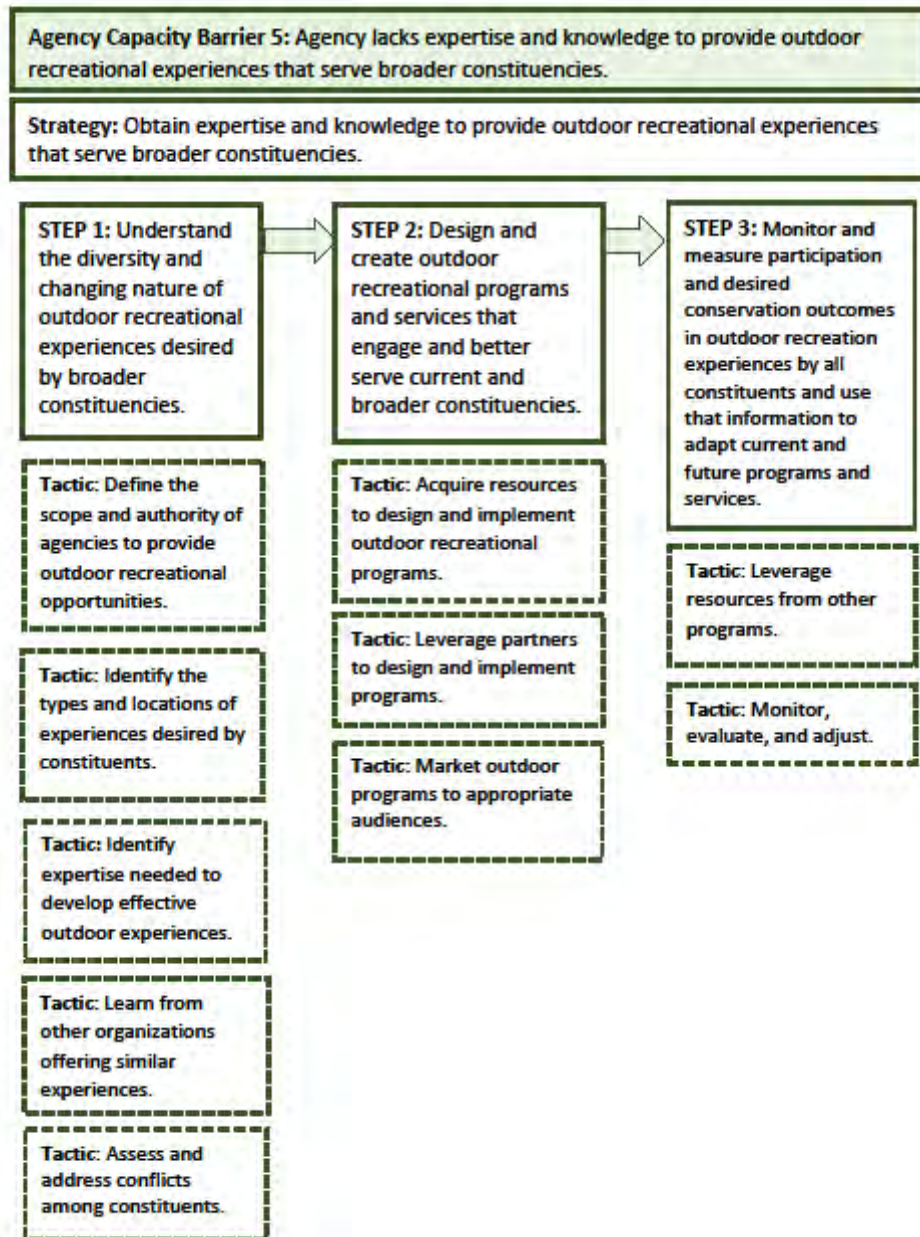
Tactic: Identify potential partners.

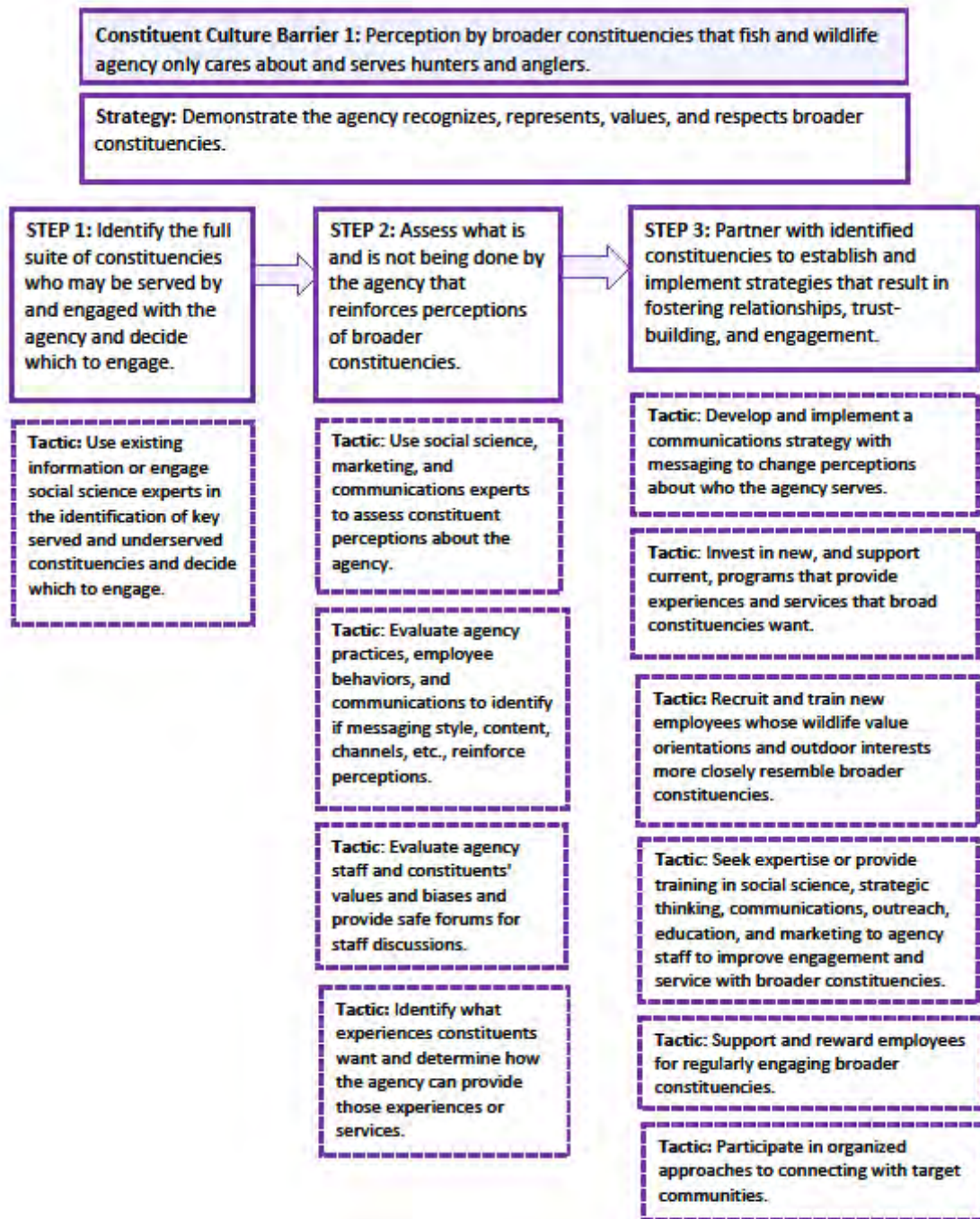
STEP 3: Prioritize and dedicate staff to maintain effective partnerships.

Tactic: Identify skills and resources needed to create and maintain effective partnerships.

Tactic: Demonstrate commitment to partnerships.

Tactic: Create and maintain effective partnerships.





Constituent Culture Barrier 2: Constituents may have fears, concerns, or beliefs that prevent them from engaging with nature.

Strategy: Help broader constituencies feel more comfortable safely engaging with nature.

STEP 1: Identify how constituent fears, concerns, and beliefs about nature originate and what perpetuates them.

STEP 2: Work with constituents to develop and implement strategies that acknowledge and address constituents' fears and concerns about nature.

Tactic: Synthesize and summarize existing information or conduct new research about fears, concerns, cultural biases and beliefs about being in nature.

Tactic: Engage communities to understand fears, concerns, cultural biases and beliefs about being in nature.

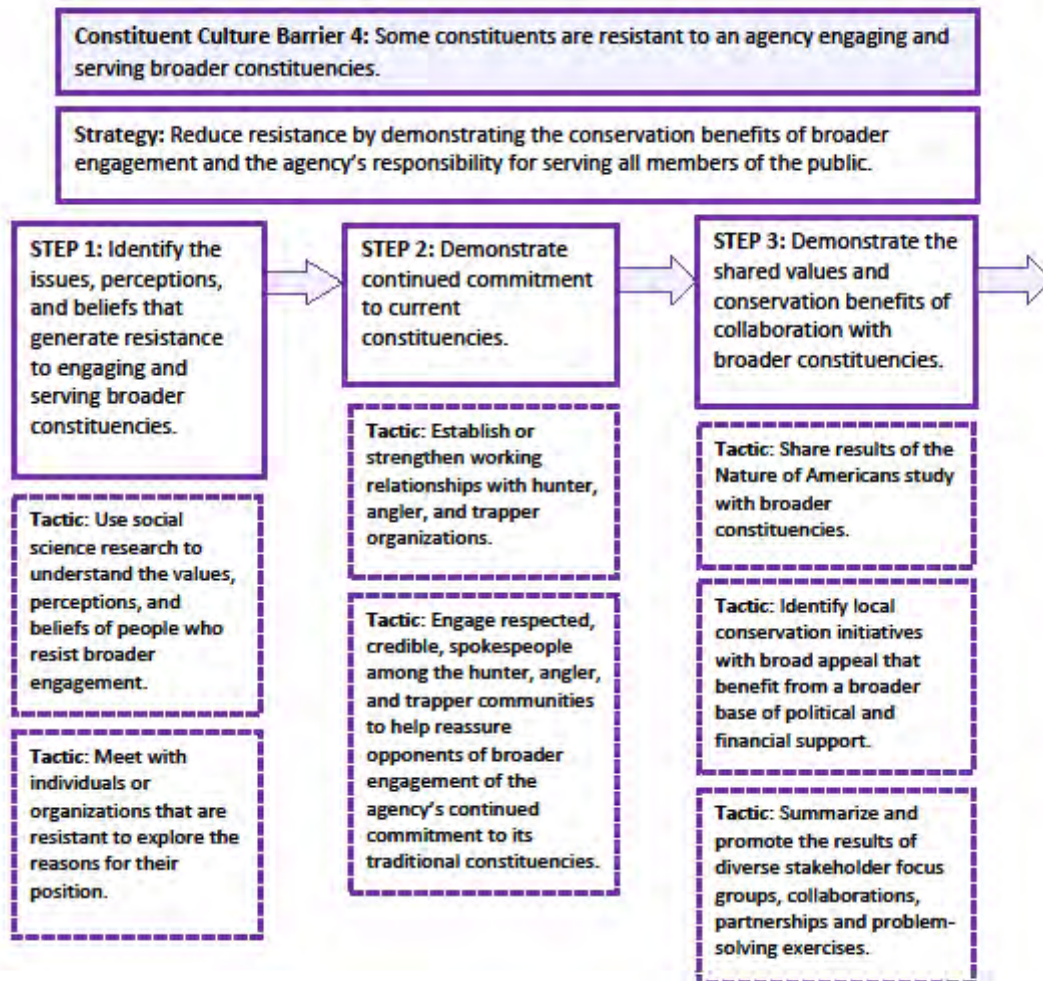
Tactic: Develop and implement new partnerships and nature-based experiences to promote engagement and provide social support to constituents.

Tactic: Work with broad constituencies to develop and implement communications and marketing strategies that address fears and discomfort with nature.

Tactic: Ensure constituents are invited and feel welcome and comfortable at agency events, properties, and nature-based activities.

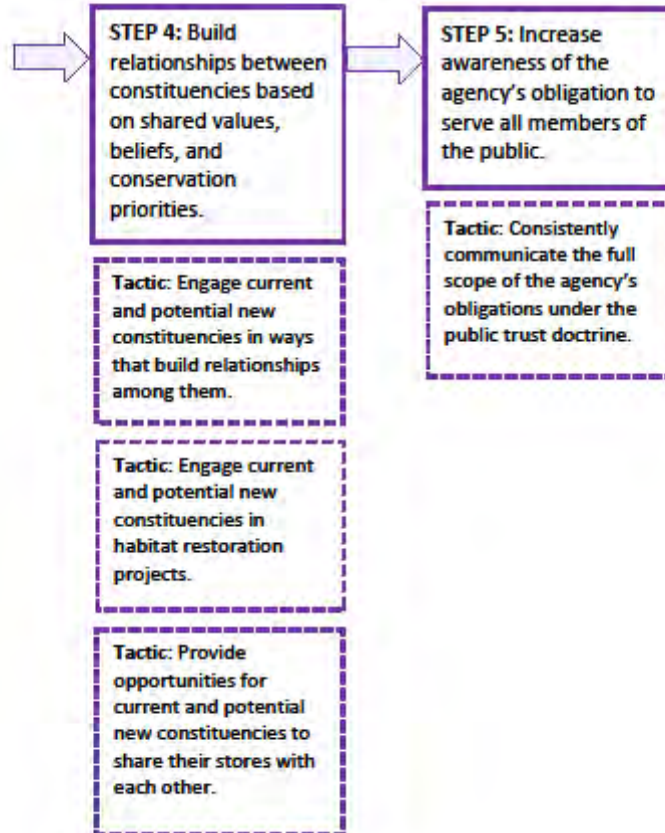
Tactic: Improve or enhance agency customer service so diverse constituents feel welcome.

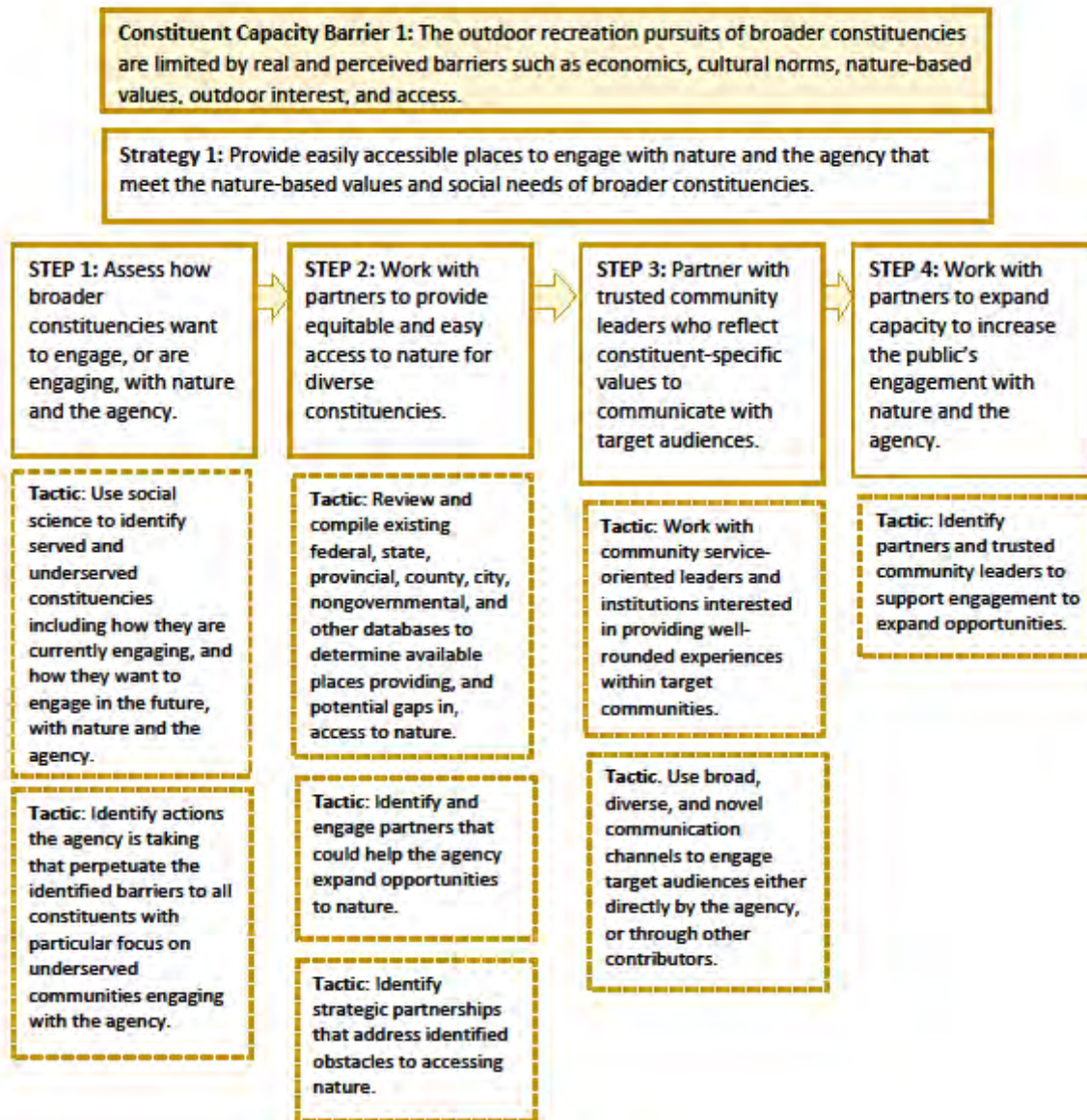


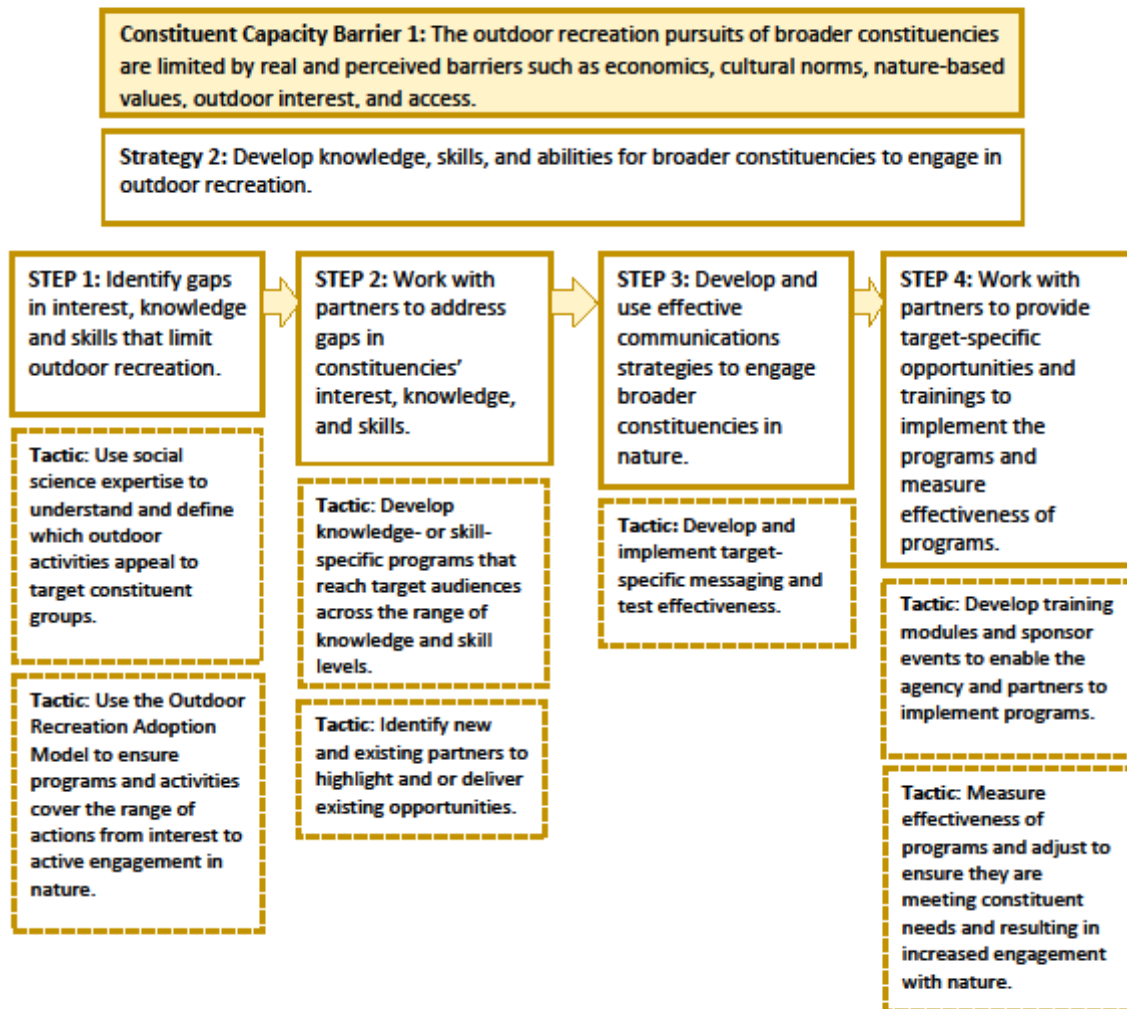


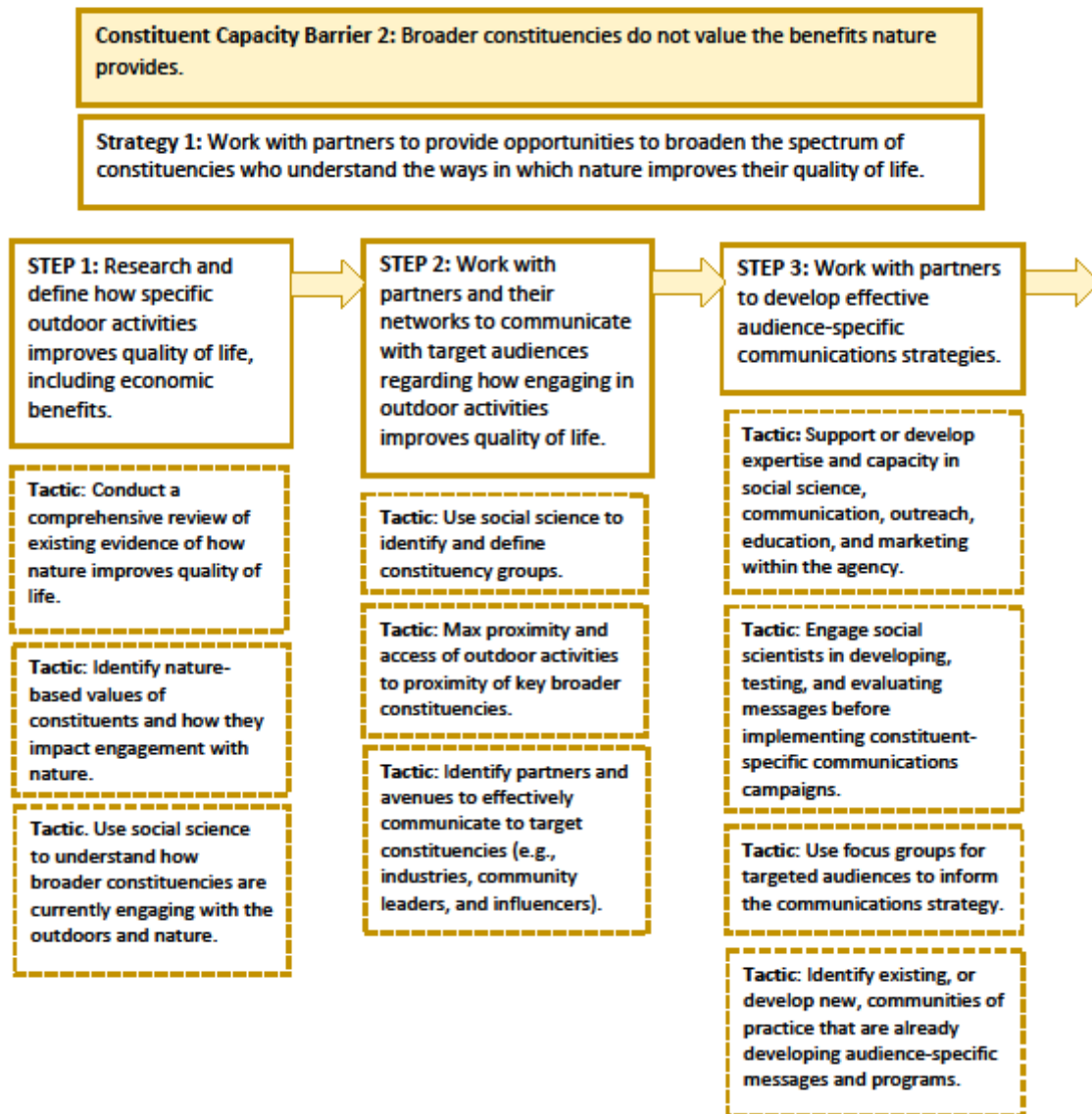
Constituent Culture Barrier 4: Some constituents are resistant to an agency engaging and serving broader constituencies.

Strategy (continued): Reduce resistance by demonstrating the conservation benefits of broader engagement and the agency's responsibility for serving all members of the public.



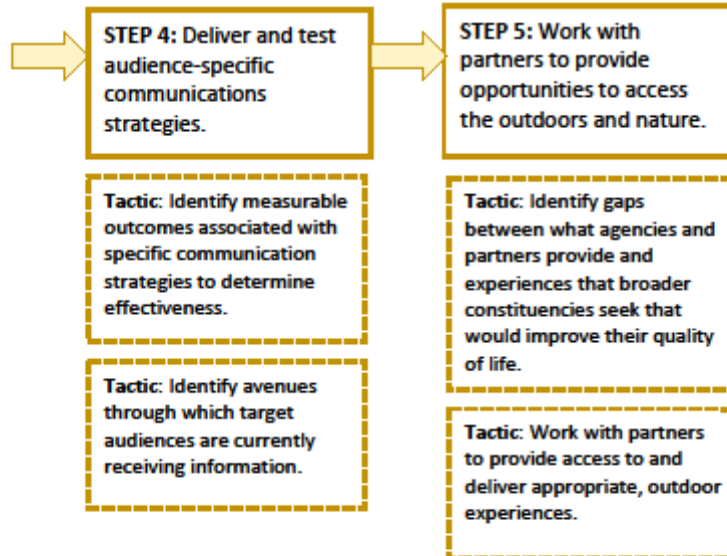


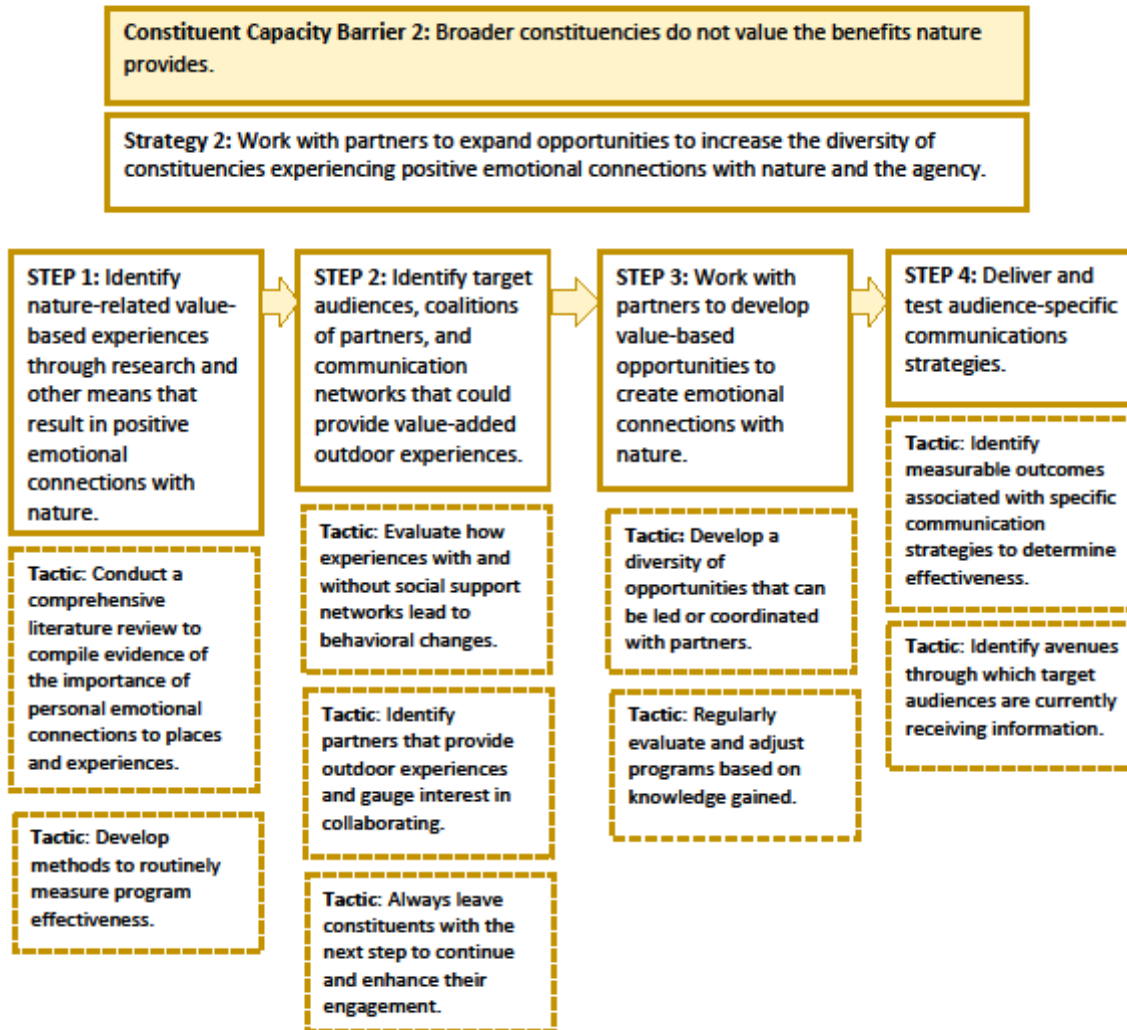


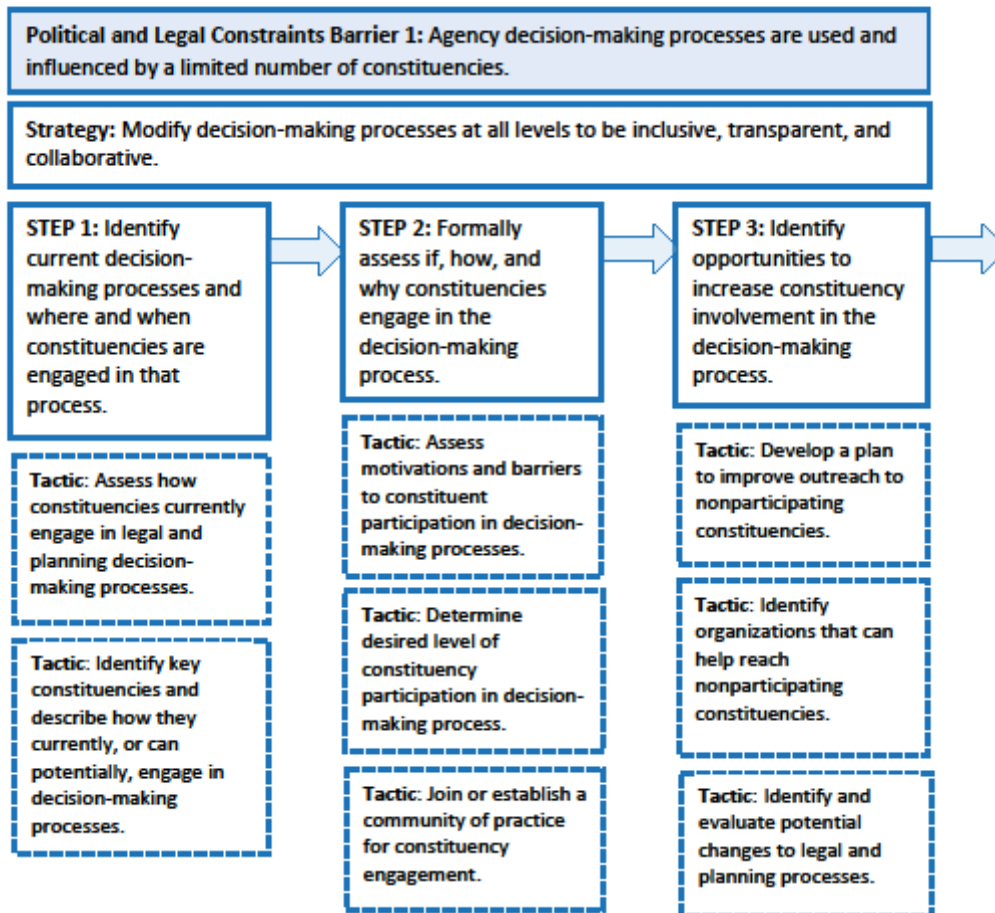


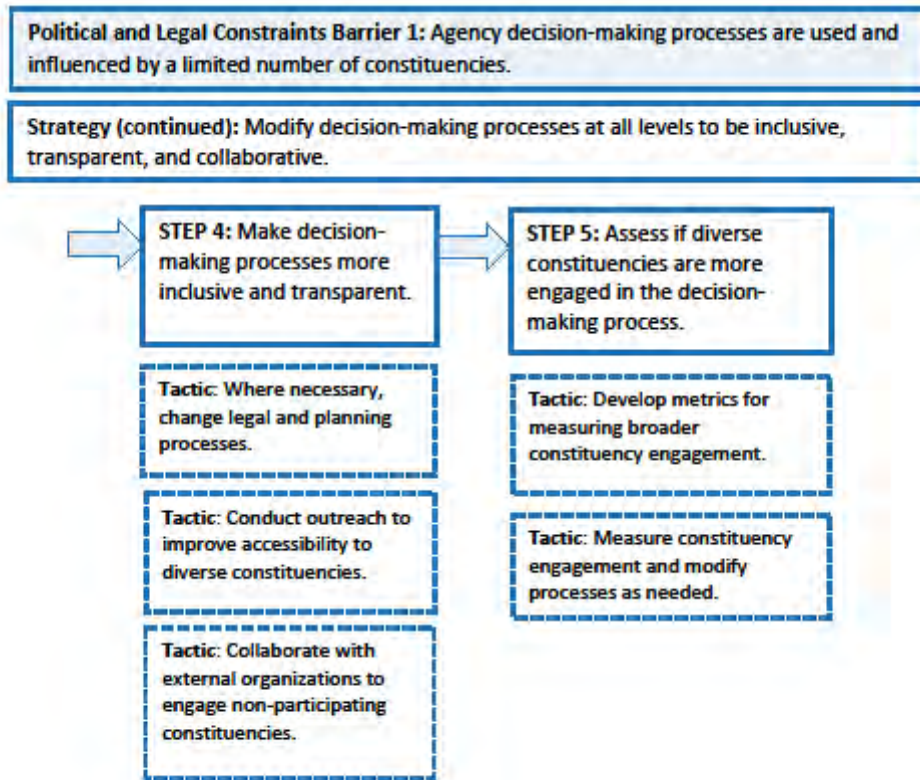
Constituent Capacity Barrier 2: Broader constituencies do not value the benefits nature provides.

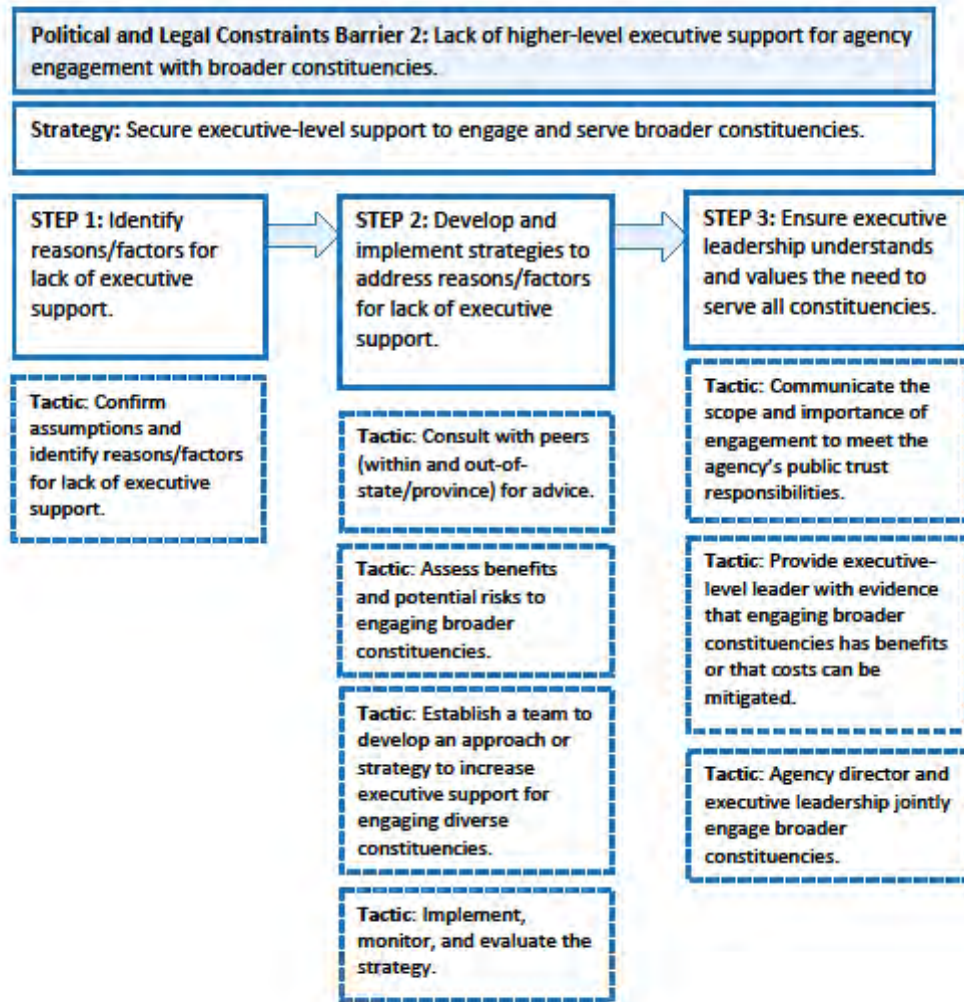
Strategy 1 (continued): Work with partners to provide opportunities to broaden the spectrum of constituencies who understand the ways in which nature improves their quality of life.

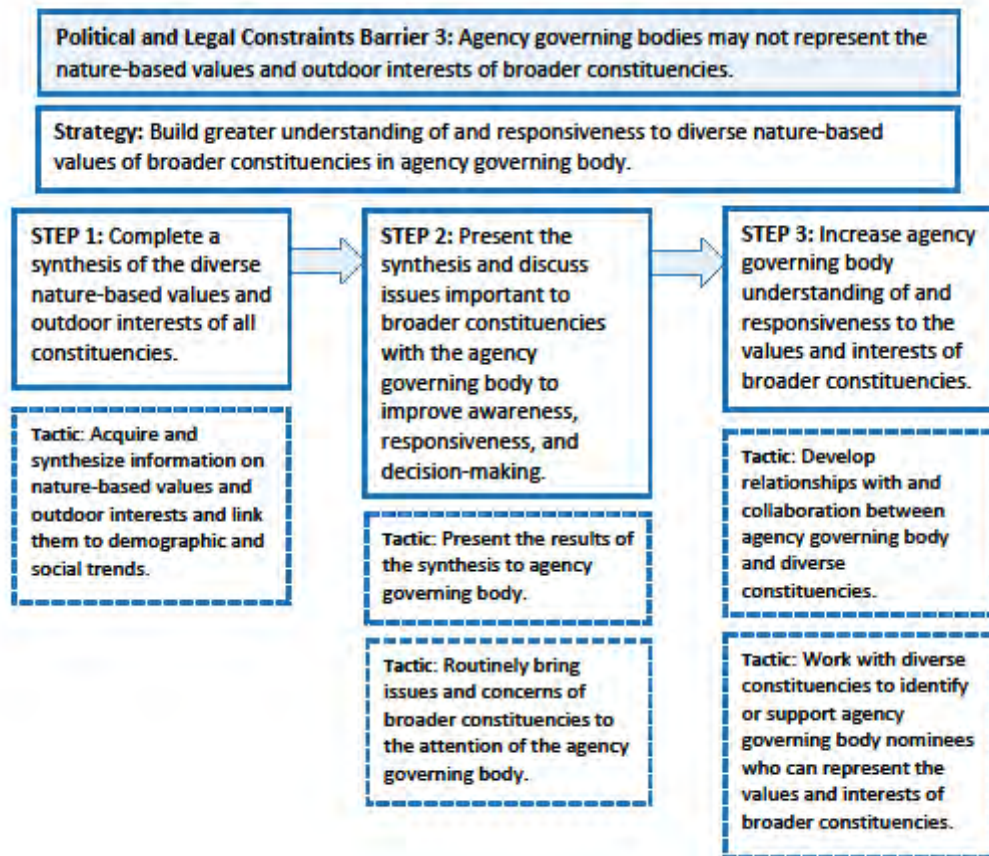


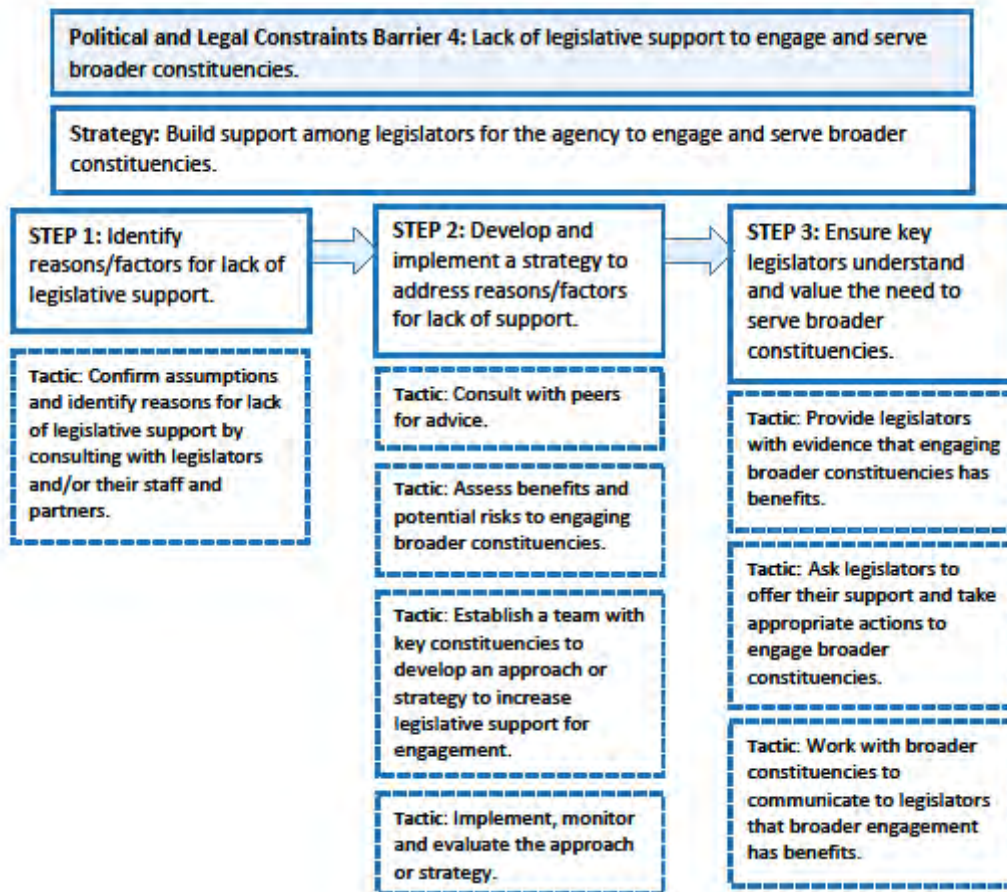














Appendix C: Association of Fish and Wildlife Agencies Relevancy Resolution

Resolution # 2018-01-07 fish and wildlife AGENCY RELEVANCY

WHEREAS, healthy fish and wildlife and their habitats are essential to the quality of our lives and provide food, fiber, recreation, pollination, water purification and other ecosystem services;

WHEREAS, for more than a century, state, provincial and territorial fish and wildlife agencies have been guided by the principles of the North American Model of Wildlife Conservation to conserve fish and wildlife and their habitats for current and future generations;

WHEREAS, sportsmen and women have long been recognized as strong partners and have made significant contributions to fish and wildlife conservation;

WHEREAS, hunting and angling have been and will continue to be important avenues to participate in the outdoors and connect people with nature;

WHEREAS, society is becoming more diverse and wildlife value orientations are changing;

WHEREAS, society is becoming more urbanized, use of electronics is increasing, people are spending less time outdoors, participation in traditional outdoor pursuits is declining and people are acquiring information through new and different means;

WHEREAS, over twenty-five peer reviewed or peer edited papers have been published in natural resources journals on relevancy or related topics and the subject has been a frequent topic of plenary and special sessions at major fish and wildlife meetings;

WHEREAS, to meet the needs of changing societies, the Association of Fish and Wildlife Agencies recognizes the need to engage and serve diverse constituencies to help more people connect with nature;

WHEREAS, every state, provincial, and territorial fish and wildlife agency has its own unique circumstances, challenges and constituencies;

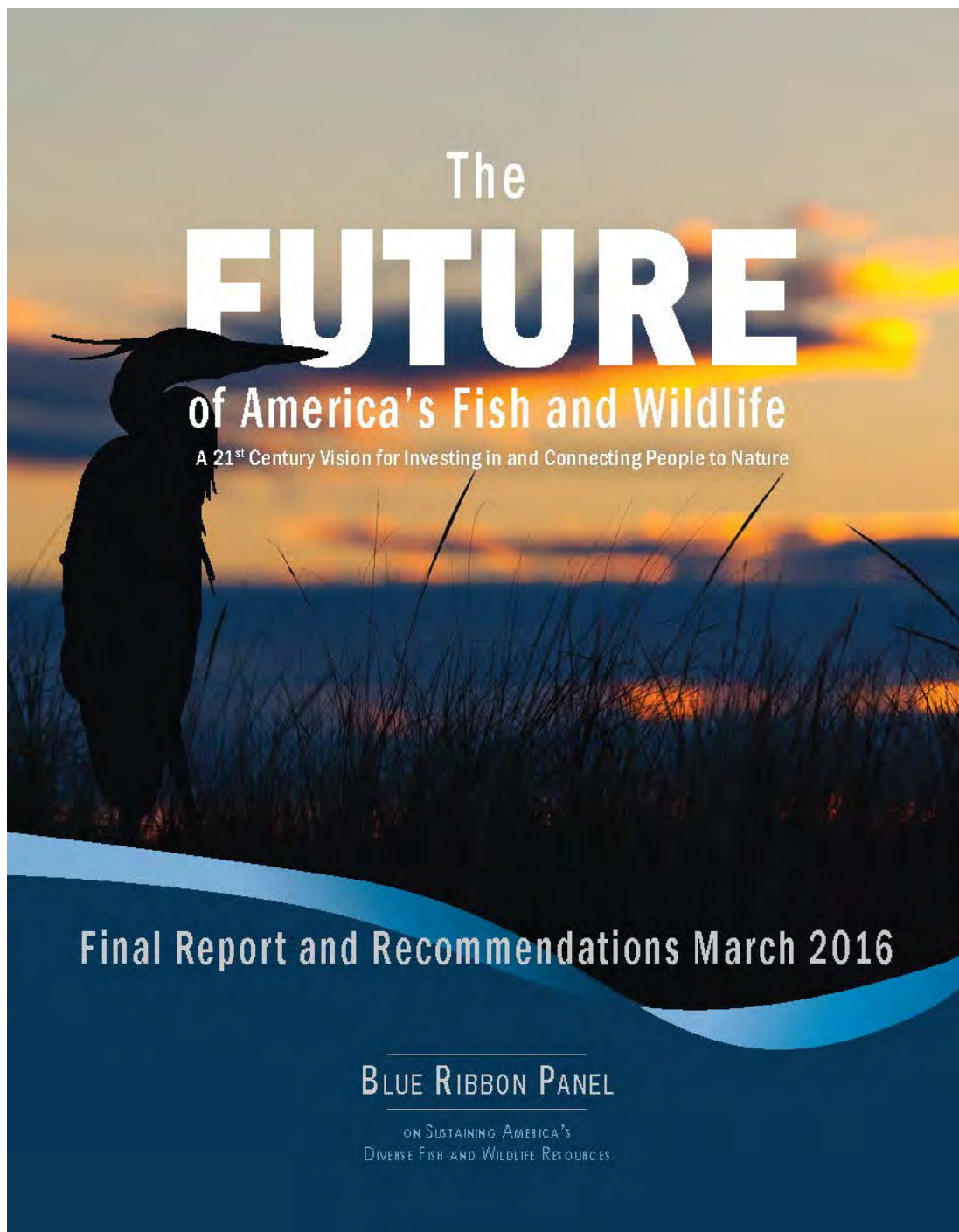
WHEREAS, the Blue Ribbon Panel on Sustaining America’s Diverse Fish and Wildlife Resources made two recommendations including “examine the impact of societal changes on the relevancy of fish and wildlife conservation and make recommendations on how programs and agencies can transform to engage and serve broader constituencies”;

WHEREAS, the Blue Ribbon Panel Relevancy Working Group was formed in 2016 and is working on recommendations on how to engage and serve broader constituencies.

THEREFORE BE IT RESOLVED, that the Association of Fish and Wildlife Agencies requests, and fully supports, the Blue Ribbon Panel Relevancy Working Group assembling a diverse team of individuals to develop a draft road map by March 2019 that would help member organizations share successful strategies and help identify and break down barriers to engaging and serving all constituents.

Resolution jointly submitted by the Wildlife Diversity Conservation and Funding and Education, Outreach and Diversity Committees with a recommendation that it be passed.

Appendix D: Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources Report



THE FUTURE OF AMERICA'S FISH AND WILDLIFE

TABLE OF CONTENTS

03	WE BELIEVE in Sustaining Fish and Wildlife:
06	WE BELIEVE there is a Fish and Wildlife Crisis:
07	WE BELIEVE a Solution is in Sight:
07	Recommendation 1
09	Recommendation 2
10	WE BELIEVE Everyone Benefits From Healthy Fish and Wildlife:

MEMBERS AND THEIR AFFILIATIONS

NATIONAL CO-CHAIRS	John Morris, Noted Conservationist and Founder, of Bass Pro Shops David Freudenthal, Former Governor, State of Wyoming; Senior Counsel, Crowell & Moring
MEMBERS	Kevin Butt, Regional Environmental Director, Toyota Motor Engineering & Manufacturing, NA, Inc. Richard Childress, CEO & Chairman, Richard Childress Racing Enterprises; Board Member NRA Jeff Crane, President, Congressional Sportsmen's Foundation Bruce Culpepper, Executive Vice President, Shell Americas John Doerr, President & CEO, Pure Fishing, Inc. Jim Faulstich, Vice Chair, Partners for Conservation; Owner Daybreak Ranch John Fitzpatrick, Director, Cornell Lab of Ornithology Greg Hill, President & COO, Hess Corporation Becky Humphries, Executive Vice President, National Wild Turkey Federation Stephen Kellert, Professor Emeritus, Yale School of Forestry and Environmental Studies Jennifer Mull, CEO, Backwoods Equipment, Inc.; President Outdoor Industry Association John Newman, Board Member, Ducks Unlimited, Inc. Mike Nussman, President & CEO, American Sportfishing Association Margaret O'Gorman, President, Wildlife Habitat Council Glenn Olson, Donal O'Brien Chair in Bird Conservation and Public Policy, National Audubon Society Collin O'Mara, President and CEO, National Wildlife Federation Connie Parker, CEO, CSParkergroup; Board Member Teddy Roosevelt Conservation Partnership Charlie Potter, CEO, Max McGraw Wildlife Foundation Steve Sanetti, President & CEO, National Shooting Sports Foundation John Tomke, Chair, Wildlife & Hunting Heritage Conservation Council Jeff Trandahl, Executive Director & CEO, National Fish & Wildlife Foundation James Walker, Board Vice Chairman, EDF Renewable Energy; Board Member American Wind Wildlife Institute Steve Williams, President, Wildlife Management Institute Bob Ziehm, Director, Missouri Department of Conservation
EX OFFICIO MEMBERS	Michael Bean, Principal Deputy Asst. Secretary for Fish, Wildlife and Parks, US Department Interior Ronald Regan, Executive Director, Association of Fish & Wildlife Agencies

FOREWORD

Fish and wildlife have been central to our work and our lives. Whether it's providing gear for the outdoor enthusiast, governing a state with a rich outdoor heritage or simply spending quality time in the outdoors, we can't imagine a world without fish and wildlife.

Our generation has been blessed with abundant elk, wild turkeys and a diversity of sport fish—but this has not always been the case. A century ago, most game species were imperiled and our nation was facing a fish and wildlife crisis. Fortunately hunters, anglers and the shooting sports and fishing industries rose to the occasion and secured funding so the states could do the important work of restoring and managing fish and wildlife. This remarkable partnership led to one of the greatest conservation success stories the world has known.

Yet what is hidden from most Americans is another impending fish and wildlife crisis. For every game species that is thriving, hundreds of nongame species are in decline. Unlike the conservation finance system that was created for game and sport fish, there is no comparable funding mechanism to manage the majority of fish and wildlife under state stewardship. As a result, thousands of species of birds, frogs, turtles and even the iconic monarch butterfly are slipping through the cracks and could become endangered in the future.

Equally alarming to us is the growing disconnection between people and nature. Today, children and adults spend far less time in nature which is affecting their physical and mental health and untying a bond with the outdoors that helps ensure there is a next generation of conservationists. If this trend continues, fewer Americans will understand the importance of or need for fish and wildlife conservation.

David Freudenthal

Former Governor,
State of Wyoming

John Morris

Founder of
Bass Pro Shops



We asked a distinguished group of business and conservation leaders to help solve a problem plaguing the conservation community for decades. In this report, the Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources recommends a new funding approach that will help ensure all fish and wildlife are conserved for future generations.

A lot is at stake if we don't act soon. Every American benefits when we have healthy and accessible fish and wildlife. We need to start down a new path where we invest proactively in conservation rather than reactively. Doing so will help us avoid contentious endangered species battles that inhibit business, slow the economy and pass on the high cost of species recovery to the next generation. We invite you to join us in our quest to advance a 21st century vision for fish and wildlife conservation.



WE BELIEVE IN SUSTAINING FISH AND WILDLIFE

Our nation's fish and wildlife are one of its most valuable assets. Our quality of life, outdoor heritage and prosperity are tied to the health and sustainability of these treasures. Yet, we are facing an impending fish and wildlife crisis that could alter future Americans' opportunity to benefit from these resources.

For decades, thousands of species of native birds, mammals, fish, frogs, turtles and insects have been slipping through the cracks because we lack a financial safety net to ensure their long-term survival. Threats such as habitat loss, invasive species, extreme weather and disease are taking an increasing toll. Today, over 12,000 species of fish and wildlife have been designated as species in greatest conservation need.

Compounding this problem are societal changes that are altering the connection between people and nature. Over 80 percent of Americans now live in urban environments and we spend an average of 11 hours a day on electronics. These changes and others are affecting the quantity and quality of time spent in contact with nature. This growing separation and aversion to the natural world is affecting our citizens' health and their understanding and appreciation of the natural environment.

Healthy habitats benefit more than just fish and wildlife. An environment managed sustainably for fish and wildlife helps safeguard the air we breathe, the water we drink, the food we eat, the scenery we view and the \$646 billion outdoor recreation economy. As our nation's population increases, so does the stress we put on our shared natural resources. When a species is pushed to the brink and becomes endangered, taxpayers are burdened with the cost of recovery, businesses face greater regulatory uncertainty and society risks losing a piece of the natural environment that we will never get back.

The states are entrusted with ensuring the health of our nation's fish and wildlife. Today, most are not able to meet this immense and important challenge because our conservation funding system is outdated and insufficient to conserve the majority of species under their care. Inadequate funding also limits efforts to inform and engage people to instill appreciation in fish and wildlife. If we don't modernize our system of conservation funding soon, thousands of additional species will become endangered and there may be far too few citizens in the future who will notice or care.



In the 1930s, the nation was mired in the Great Depression and the bounty of wildlife that greeted the first European settlers was rapidly dwindling. The need for restoration was urgent, but funding was scarce. Hunters and the shooting sports industry united with state fish and wildlife agencies, conservation groups, gardeners, women's clubs, birders and others to rally Congress to dedicate funding from an excise tax on guns and ammunition to restore game populations. In later years, the sport fishing and boating industries followed suit by establishing a similar tax on fishing gear and motorboat fuels to fund the restoration of our nation's sport fish. This historic collaboration is unparalleled and is the reason why we have thriving populations of white-tailed deer, wild turkey, largemouth bass and other game and sport fish species today.

This remarkable success story demonstrates that in times of need, private citizens, government and business can work together to find an innovative solution to solve a significant conservation challenge. A similar collaboration is needed today to address the crisis facing thousands of species that are not hunted and fished and to help reconnect people with nature. We believe a 21st century conservation funding system is needed now to safeguard our nation's fish and wildlife.

About the Blue Ribbon Panel

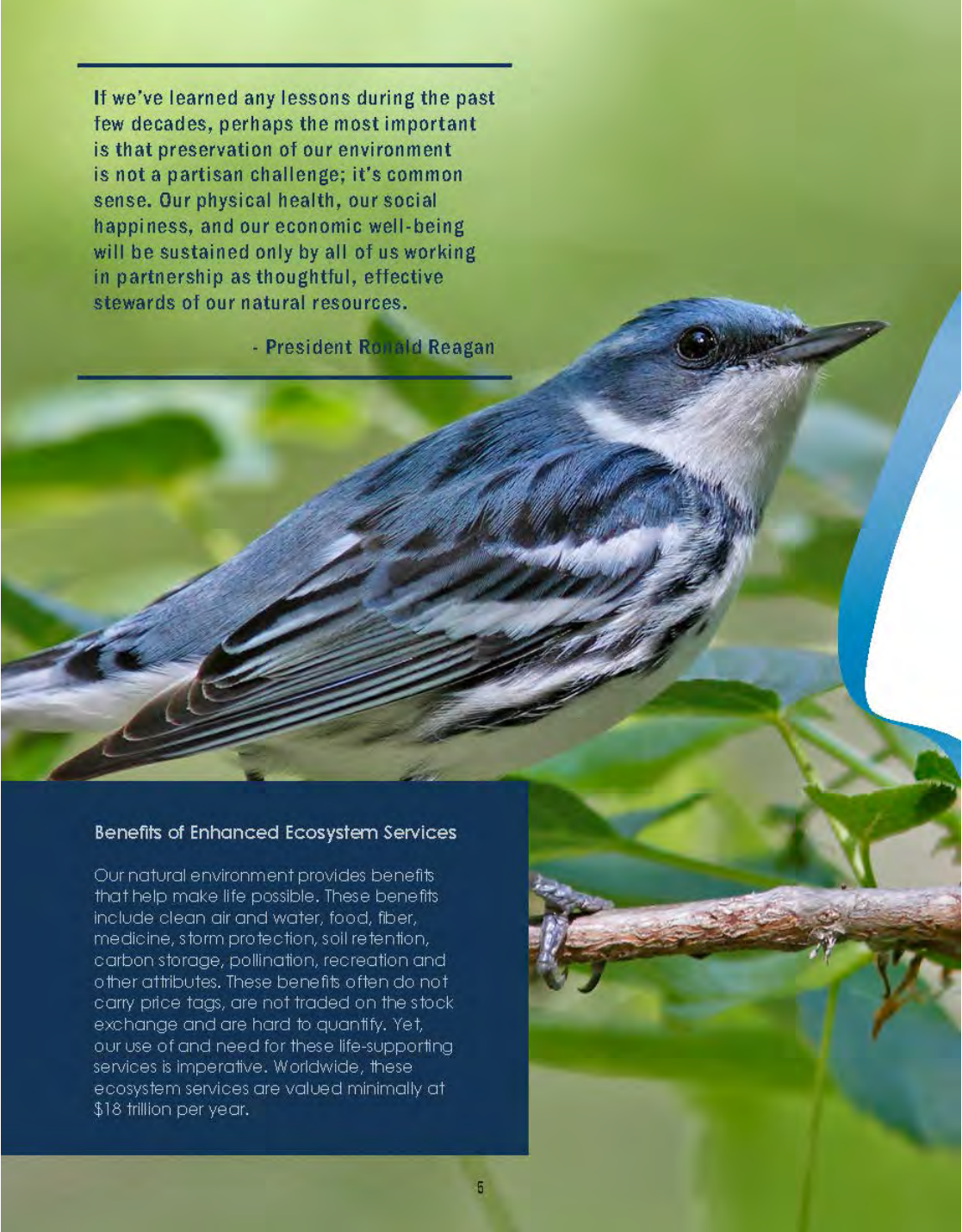
In September 2014, John Morris, Founder of Bass Pro Shops and David Freudenthal, former governor of Wyoming asked business and conservation leaders to join them on the Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources. The Panel was charged with examining the current system of conservation funding and recommending a new mechanism that will conserve all fish and wildlife. After three meetings and consideration of nearly two dozen potential

funding options, the Panel agreed on two recommendations that will help set a new course for fish and wildlife conservation in this country.

Benefits of Connecting People (Especially Kids) with Nature

When we spend time in nature, we accrue physical and mental health benefits. Even a short amount of time in nature each day can improve concentration, reduce stress, lower blood pressure and improve mental health, all of which can help prevent disease. Some of the greatest health benefits are seen in children who are better able to complete tasks, follow directions, think critically and have improved physical fitness when they spend time outdoors.





If we've learned any lessons during the past few decades, perhaps the most important is that preservation of our environment is not a partisan challenge; it's common sense. Our physical health, our social happiness, and our economic well-being will be sustained only by all of us working in partnership as thoughtful, effective stewards of our natural resources.

- President Ronald Reagan

Benefits of Enhanced Ecosystem Services

Our natural environment provides benefits that help make life possible. These benefits include clean air and water, food, fiber, medicine, storm protection, soil retention, carbon storage, pollination, recreation and other attributes. These benefits often do not carry price tags, are not traded on the stock exchange and are hard to quantify. Yet, our use of and need for these life-supporting services is imperative. Worldwide, these ecosystem services are valued minimally at \$18 trillion per year.

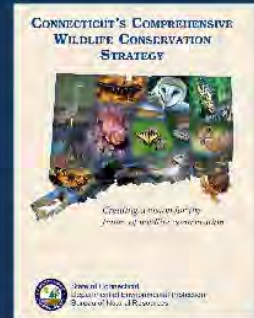
WE BELIEVE

THERE IS A FISH AND WILDLIFE CRISIS

The recovery of the nation's game and sport fish is one of our greatest conservation success stories. This achievement was possible because hunters, archers, recreational shooters, anglers, boaters and their industries banded together to support a tax on their products to finance fish and wildlife conservation. Today, this funding provides over a billion dollars to the states to monitor fish and wildlife, conduct research, protect and manage habitat and deliver quality access for hunting and fishing. This funding along with hunting and fishing license fees, serves as the primary source of revenue for most state fish and wildlife agencies.

There is no similar source of dedicated funding for thousands of species that are not hunted or fished. As a result, an increasing number of species are becoming rare and imperiled. In the coming years, thousands of species could be added to the list of federal threatened and endangered species. Nearly 1,600 species of animals and plants are already listed and the states have identified over 12,000 species in their State Wildlife Action Plans that are in greatest conservation need. The 20th century model of funding was never designed to meet the 21st century demands of fish and wildlife conservation.

Decades of inadequate funding have prevented the states from implementing the proven, cost effective strategies needed to keep fish and wildlife healthy. It costs taxpayers hundreds of millions of dollars each year to restore threatened and endangered species, outlays that might be avoided or greatly reduced if proactive conservation measures were implemented first. The cost of complying with endangered species regulations and lost revenue from project delays also impacts business. A new vision for fish and wildlife funding is needed that will allow a greater number citizens to be investors in fish and wildlife conservation.



State Wildlife Action Plans - Blue Prints for Conserving Fish and Wildlife

Each State, territory and the District of Columbia have created comprehensive State Wildlife Action Plans. These science-based plans, developed in collaboration with conservation partners, lay out the key threats to fish and wildlife and the actions needed to conserve over 12,000 species in greatest conservation need and their habitats. Development of the plans in 2005 was a historic accomplishment but implementation has been curtailed because of a lack of funding.

WE BELIEVE A SOLUTION IS IN SIGHT

RECOMMENDATION 1

Congress dedicate up to \$1.3 billion annually in existing revenue from the development of energy and mineral resources on federal lands and waters to the Wildlife Conservation Restoration Program (16 U.S.C. 669b(a)).

The Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources recommends that Congress dedicate up to \$1.3 billion annually in existing revenue from the development of energy and mineral resources on federal lands and waters to the Wildlife Conservation Restoration Program. These funds would provide states with the resources needed to implement State Wildlife Action Plans which are designed to conserve 12,000 species in greatest conservation need. Effective implementation of these plans would require an estimated \$1.3 billion in new funding. Without funding, the states will be unable to implement voluntary, non-regulatory measures that have been proven to prevent threatened and endangered species listings.

In 2013, businesses that extracted energy and mineral resources on federal lands and waters paid \$12.3 billion in royalties, fees, and bonus bids to conduct their work. These companies provide vital services to the country by supplying the raw materials needed to fuel our economy and meet consumer demand. The oil, gas and minerals found on federal lands and waters are held in trust and belong to every American. Investing a portion of these proceeds into fish and wildlife conservation is supported by the public and will help ensure that current and future generations share in this wealth.

When advocates are given a range of options to fund State Wildlife Action Plans, they are much more supportive of using existing revenues than tax or fee increases.

Source: Public Opinion Strategies - 2006



This mechanism will not require businesses or taxpayers to pay more, but instead allow all Americans to become investors in fish and wildlife conservation.

The funds should be dedicated to the existing, but unfunded, Wildlife Conservation Restoration Program, without displacing or diminishing funding directed to the Land and Water Conservation Fund. The Wildlife Conservation Restoration Program was created by Congress in 2000 to “*extend financial and technical assistance to the States under the Federal Aid in Wildlife Restoration Act for the benefit of a diverse array of wildlife and associated habitats, including species that are not hunted or fished, to fulfill unmet needs of wildlife within the States in recognition of the primary role of the States to conserve all wildlife*”. The program allocates funds using a formula, requires nonfederal match and provides states with the flexibility to also implement programs that help people learn about and access fish and wildlife for wildlife viewing, photography and other passive forms of recreation.

In order to build support for increased funding, the role of the states in conserving fish and wildlife needs to be conveyed to the public. The states led the way a century ago when most of the nation's game species were

imperiled and they can keep species from becoming endangered when they have sufficient resources. This story of state-based fish and wildlife conservation is not understood by most Americans. A communication and marketing strategy should be launched to inform the public of the states' role as guardian of our nation's fish and wildlife.

Additionally, strong and diverse grassroots support will be needed to make the case for new funding. The national Teaming With Wildlife coalition was organized two decades ago to support dedicated and sustained funding for fish and wildlife conservation. The coalition includes over 6,400 organizations representing millions of birders, hikers, hunters, anglers, natural resource professionals and others, making it one of the largest and most diverse coalitions ever assembled for a conservation cause. The coalition should be activated and expanded to support the recommendations of this Panel.

Benefits of the outdoors to the economy

Healthy fish and wildlife is good business and contributes to a strong economy. The nation's 90 million hunters, anglers and wildlife watchers spend \$145 billion annually and generate tens of billions of dollars in federal, state and local taxes. Overall, consumers spend \$646 billion on outdoor recreation and provide 6.1 million direct jobs each year.

8



RECOMMENDATION 2

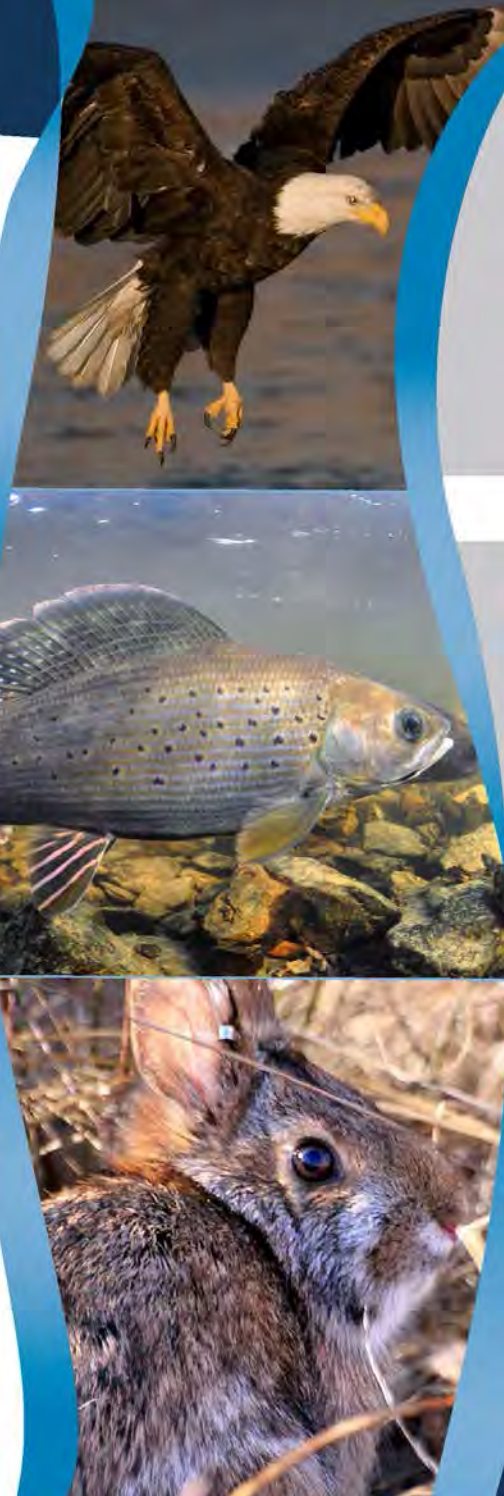
The Blue Ribbon Panel will examine the impact of societal changes on the relevancy of fish and wildlife conservation and make recommendations on how programs and agencies can transform to engage and serve broader constituencies.

The Blue Ribbon Panel will convene a working group to examine how shifting demographics and changing attitudes about nature are affecting the relevancy of fish and wildlife conservation. As the nation becomes more urban, ethnically and culturally diverse and disconnected from nature, the public's perceptions and values associated with fish and wildlife are changing. Although core constituencies like hunters and anglers will continue to be key allies, there is a need to broaden stakeholder representation to ensure fish and wildlife conservation remains relevant and supported by people from all walks of life.

Every citizen has a stake in and benefits from healthy fish and wildlife, but most have little contact with or understanding of the state agency responsible for their stewardship. To remain relevant, state fish and wildlife agencies will need to transform their structures, operations and cultures to meet the changing expectations of their customers. If state fish and wildlife agencies fail to adapt, their ability to manage fish and wildlife will be hindered and their public and political support compromised.

The working group will solicit input from a team of interdisciplinary experts to better understand the challenges facing fish and wildlife agencies and make recommendations on how to help them transition and transform so they can more effectively serve the needs of all citizens and all fish and wildlife.

9



SUCCESS STORY - BALD EAGLE

A half century ago, our nation's symbol was severely imperiled. The continental population of bald eagles declined from over one hundred thousand nesting eagles to less than 600 pairs. Following nearly four decades of intensive conservation and management, the bald eagle has recovered with nesting pairs now exceeding 10,000.

SUCCESS STORY - ARCTIC GRAYLING

In 1994, Montana's arctic grayling was designated a candidate for federal endangered species listing. State and federal agencies and private partners worked together to complete 450 habitat projects impacting 165,000 acres which helped double the arctic grayling population. In 2014 the US Fish and Wildlife Service determined that these efforts precluded the need to federally list the species, providing regulatory certainty for ranchers.

SUCCESS STORY - NEW ENGLAND COTTONTAIL

The New England cottontail, the inspiration for Peter Cottontail, was almost lost due to habitat degradation and competition from the eastern cottontail. In 2006, this species was designated as a candidate for federal Endangered Species Act protection. State and federal agencies, private organizations and private citizens worked together to start a captive breeding program and restore young forest habitats in New England. In 2015, the US Fish and Wildlife Service removed the species from the candidate list.

WE BELIEVE**EVERYONE BENEFITS FROM HEALTHY FISH AND WILDLIFE**

A fundamental shift in how we finance fish and wildlife conservation is needed. We invest far too little in conservation until a species is in trouble and "emergency room" care is required. This flawed approach drives up costs, puts fish and wildlife at great risk and creates an environment of regulatory uncertainty for business.

The Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources has a solution. Dedicating a portion of federal royalties and fees from mineral and energy development in proactive fish and wildlife conservation would stem the flow of endangered species listings and make every American an investor in this important work. New funding would also provide resources to states to help reconnect people with nature and improve access to the outdoors to improve health and cultivate the next generation of conservationists.

The fish and wildlife resources that are part of our rich natural heritage are here because of the vision, passion and commitment of the conservationists who preceded us. Our generation will be judged by the state in which we leave these resources to the next. We must pick one of two paths. Do we proactively invest in conservation to ensure fish and wildlife are sustained or saddle the next generation with the high cost of recovering the species whose care we neglected. We believe that the right path is to begin investing NOW in a 21st century vision for fish and wildlife.

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TO LEARN MORE

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Appendix E: Governance Principles for Wildlife Conservation in the 21st Century (Decker et. al 2016)

1. Wildlife governance will be adaptable and responsive to citizens' current needs and interests, while also being forward-looking to conserve options of future generations.
2. Wildlife governance will seek and incorporate multiple and diverse perspectives.
3. Wildlife governance will apply social and ecological science, citizens' knowledge, and trust administrators' judgment.
4. Wildlife governance will produce multiple, sustainable benefits for all beneficiaries.
5. Wildlife governance will ensure that trust administrators are responsible for maintaining trust resources and allocating benefits from the trust.
6. Wildlife governance will be publicly accessible and transparent.
7. Wildlife governance will ensure that trust administrators are publicly accountable.
8. Wildlife governance will include means for citizens to become informed and engaged in decision-making.
9. Wildlife governance will include opportunities for trust administrators to meet their obligations in partnerships with nongovernmental entities.
10. Wildlife governance will facilitate collaboration and coordination across ecological, jurisdictional and ownership boundaries.

Appendix F: Public Trust Roles and Responsibilities Abstract (Smith 2011)

The Role of State Wildlife Professionals Under the Public Trust Doctrine

CHRISTIAN A. SMITH

The Journal of Wildlife Management 75(7):1539–1543; 2011

ABSTRACT The Public Trust Doctrine (PTD) is considered the cornerstone of the North American Model of Wildlife Conservation. Effective application of the PTD requires a clear understanding of the doctrine and appropriate behavior by trustees, trust managers, and beneficiaries. Most PTD literature refers generically to the role of the government as the people’s trustee, without addressing the differences between the legislative, executive, and judicial branches of government in the United States or recognizing the distinction between elected and appointed officials and career civil servants. Elected and appointed officials, especially in the legislative branch, have policy-level decision-making authority that makes them trustees of the people’s wildlife under the PTD. In contrast, career professionals working for state wildlife agencies (SWAs) have ministerial duties as trust managers. The differences between the roles of trustees and trust managers are important. By focusing on their role as trust managers, while supporting and respecting the role of elected and appointed officials as trustees, SWA professionals can more effectively advance application of the PTD.

Appendix G: Links to Additional Resources and Suggested Reading

Title of Resource	Hyperlink
Leaders' Guide: Transformation of State Fish and Wildlife Agencies: Ensuring the Future of Conservation in a Rapidly Changing World (Decker, Jacobson, Organ (2011)	http://www2.dnr.cornell.edu/ext/FWLeaderGuide.pdf
State Fish and Wildlife Conservation Agency Transformation: An Annotated Bibliography (Forstchen 2018)	https://blogs.cornell.edu/publictrustpractice/agency-transformation/
Association of Fish and Wildlife Agencies Making it Last Marketing Campaign Toolkit	https://www.fishwildlife.org/application/files/4215/5240/8086/Making_It_Last_Toolkit-lowres.pdf
North American Bird Conservation Initiative Relevancy Toolkit	http://nabci-us.org/wp-content/uploads/2018/08/NABCI-linking-bird-conservation-to-human-benefits-1.pdf
Standards of Excellence for Urban National Wildlife Refuges	https://www.fws.gov/urban/soe.php
National Wildlife Federation's Conservation Leaders Toolkit on Strengthening State Wildlife Agencies	www.nwf.org
National Hunting and Shooting Sports Action Plan	https://cahss.org/national-hunting-shooting-sports-action-plan/
Recommendations and Strategic Tools for Effective Angler Recruitment, Retention, and Reactivation (R3) Efforts	https://www.takemefishing.org/getmedia/4d891d05-348f-40b0-962f-

	<u>3df34b5cc0a7/AREA-RBFF-Angler-R3-Recommendations_November-2016</u>
Project Wild	<u>https://www.fishwildlife.org/projectwild</u>
Becoming an Outdoors Woman	<u>https://www.facebook.com/pages/category/Nonprofit-Organization/Becoming-an-Outdoors-Woman-42311557536/</u>
Partnership Impact Evaluation Guide	<u>https://www.onetam.org/sites/default/files/pdfs/Partnership_Impact_Evaluation_Guide.PDF</u>
The Nature Conservancy's Conservation Partnership Center	<u>https://www.conservationgateway.org/ConservationPlanning/partnering/cpc/Pages/step5.aspx</u>
The World Wildlife Fund's Partnership Toolbox	<u>http://assets.wwf.org.uk/downloads/wwf_partnershiptoolboxartweb.pdf</u>
Children & Nature Network's research library.	<u>https://www.childrenandnature.org/learn/research/</u>
Benefits of Outdoor Skills to Health, Learning and Lifestyle: A Literature Review (Association of Fish and Wildlife Agencies, 2010);	<u>https://www.fishwildlife.org/application/files/3815/1630/6671/ConEd-Benefit-of-Outdoor-Skills-LiteratureReview.pdf</u>
Parks and Other Green Environments: Essential Components of Healthy Human Habitats (Kuo; National Recreation and Park Association, 2010);	<u>https://www.nrpa.org/UPLOADEDFILES/NRPA.ORG/PUBLICATIONS_AND_RESEARCH/RESEARCH/PAPERS/MINGKUO-RESEARCH-PAPER.PDF</u>
Home to Us All: How Connecting with Nature Helps Us Care for Ourselves and the Earth (Charles <i>et al.</i> ; Children & Nature Network, 2018).	<u>https://static1.squarespace.com/static/597b547aebbd1a681f3883f2/t/5bf561f12b6a2890e1a04b37/1542808051665/HometoUsAll.pdf</u>