



## Advancing the National Fish, Wildlife, and Plants Climate Adaptation Strategy into a New Decade

The 2012 National Fish, Wildlife, and Plants Climate Adaptation Strategy was designed to “inspire and enable natural resource managers, legislators, and other decision makers to take effective steps towards climate change adaptation over the next five to ten years.” Nearly a decade later, the Strategy remains foundational in how managers address climate change impacts and safeguard the valuable natural resources we depend upon. However, a review and update are necessary for the Strategy to keep pace with our understanding of the science and practice of adaptation. The report takes a high-level review of what has changed, how the Strategy has or has not been implemented, and provides recommendations for the future.

### RECOMMENDATIONS

Thirteen management recommendations were made, reflecting how natural resource managers should be adapting our current understanding of the science and practice of adaptation to fish and wildlife management for the future.

- **Invest time and resources for education and training** opportunities related to climate adaptation for staff at all levels to encourage understanding, appreciation, and integration.
- **Review conservation goals and objectives** for managed ecosystems, in relation to projections for those systems under a changing climate, on a continual basis.
- **Employ adaptive management** as a key tool in addressing climate change impacts, both direct and indirect, to fish, wildlife, plants, and ecosystems.
- **Conserve and manage habitat at multiple scales**, including large scales previously only considered for long-distance migrations.
- **Identify, protect, and manage refugia** to protect biodiversity and ecosystem services in a changing climate.
- **Integrate landscape efforts** to protect terrestrial climate resilience with watershed protections of resilient aquatic ecosystems.
- **Embrace prospective management** practices for ecosystem transformations where agency authorities, mandates, and regulations are viewed through the lens of future conditions rather than historical baselines.
- **Manage invasive species** (both nonnative and native) by considering not only current deleterious impacts on ecosystems, but also for future impacts as climate change allows them to invade new areas.
- **Direct resources towards research and management of fish, wildlife, and plant disease outbreaks.**
- **Consider the implications of shifting land use**, driven by societal change, as well as climate change, in management decisions.
- **Recognize that Indigenous knowledges (IKs) are valid and valuable** systems of knowledge, equal in value to Western science and crucial for addressing climate change impacts in an inclusive way.
- Ensure management interventions and allocation of resources for climate adaptation **assess and include the needs of marginalized communities**, through equitable and meaningful consultation and engagement.
- **Address climate adaptation planning through cross-sector and cross-jurisdictional coordination**, utilizing a full suite of expertise.

## STRUCTURE



### Part I

Briefly describes what has changed in our understanding of climate change and climate adaptation science, as well as how the emerging field of the adaptation practice has grown.

### Part II

Cross-walks the Strategy goals with a variety of climate adaptation plans made at federal, state, tribal, and nonprofit levels to assess where and how the Strategy has been implemented or been an influence over the past decade.

### Part III

Summarizes the findings of the report by laying out recommendations. These recommendations are meant to address how the Strategy can be adapted to remain a relevant and effective guiding document for natural resource professionals undertaking climate adaptation efforts in the new decade.



## THE NATIONAL FISH, WILDLIFE, AND PLANTS CLIMATE ADAPTATION STRATEGY GOALS



### Goal 1

Conserve habitat to support healthy fish, wildlife, and plant populations and ecosystem functions in a changing climate.

### Goal 2

Manage species and habitat to protect ecosystem functions and provide sustainable cultural, subsistence, recreational, and commercial use in a changing climate.

### Goal 3

Enhance management capacity in a changing climate.

### Goal 4

Support adaptive management in a changing climate through integrated observation and monitoring and use of decision support tools.

### Goal 5

Increase knowledge and information on impacts and responses of fish, wildlife, and plants to a changing climate.

### Goal 6

Increase awareness and motivate action to safeguard fish, wildlife, and plants in a changing climate.

### Goal 7

Reduce non-climate stressors to help fish, wildlife, plants, and ecosystems adapt to a changing climate.

### NEW STRATEGY GOAL

Climate change impacts to ecosystem services, such as productive soils or clean water, will directly affect millions of people, and often these impacts will be felt disproportionately in Black, Indigenous, and other communities of color. These are communities that, historically, conservation has failed to include in meaningful and equitable ways. Climate change impacts will affect the availability of resources, shift land uses, and displace culturally significant species. These changes will have social, economic, and political implications for communities and cannot be addressed fully without natural resource professionals. The report recommends the addition of a new Strategy goal that focuses on the need to integrate people into the way we address climate adaptation for fish, wildlife, plants, and the ecosystems on which people depend.

**Suggested Strategy Goal 8** From the outset, include local communities in planning and implementing responses to climate change impacts on natural resources that are of social, cultural, environmental, and economic importance.



### NEXT STEPS FOR THE STRATEGY

1. Until such time that federal support for an interagency workgroup is re-established to implement the Strategy (such as the former Joint Implementation Working Group), the National Fish, Wildlife, and Plants Climate Adaptation Network should continue to steward these efforts, including implementation of next steps, if necessary.
2. Formally include Goal 8 into the Strategy goals. In addition, strategies and actions for Goal 8 need to be developed in the same format as Goals 1–7 to provide greater guidance in how to fully implement Goal 8 within the adaptation practice. This will provide the opportunity to explain the nuances in community engagement, equity, justice, and inclusion, and other issues interrelated to people, conservation, and climate adaptation.
3. Develop best management practices to guide practitioners on alignment and coordination of the Strategy across both sectors and agencies. This will ensure greater mainstreaming of climate adaptation with a focus on natural resources.
4. Conduct an in-depth crosswalk and assessment of federal, state, tribal, and nonprofit adaptation plans to identify areas of accomplishments and barriers to implementing the Strategy. Additionally, develop key strategies to help agency personnel better quantify and record effort related to climate adaptation actions.