



## CH.5

# Integration & Implementation

**THIS FIRST NATIONAL-SCALE EFFORT** identifies the major strategies and initial actions needed to help our valuable living resources and the communities that depend on them address the challenges of climate change. Although the *Strategy* identifies some of the essential actions that can be taken or initiated in the next five to ten years, its success relies on additional planning and action by federal, tribal, state, and local governments and many partners.

### 5.1 Strategy Integration

The *Strategy* builds upon and complements many existing climate adaptation efforts. Continuation and expansion of these efforts is critical to achieving the goals of this *Strategy*.

First, many local governments and states have already begun to develop adaptation plans, either through their local land-use planning efforts, within their state fish and wildlife agencies, or more broadly across state government. For example, Washington State released the *Washington State Integrated Climate Change Response Strategy* in December 2011, which explains the climate change adaptation priorities and potential strategies and actions to address those concerns. Many other states have

developed similar efforts, such as *Alaska's Climate Change Strategy* released in 2010 and the *California Climate Adaptation Strategy* released in 2009. The number of state resource agencies with climate vulnerability and adaptation efforts underway is increasing, and this *Strategy* can serve as a resource for states as well as local governments, tribes, federal agencies, and others.

Second, many multi-governmental and non-governmental partnerships already conduct sophisticated resource management planning that can incorporate climate change. Two examples are JVs<sup>4</sup> and the NFHAP,<sup>5</sup> partnerships of federal agencies, states, tribes, conservation organizations, and industry working to protect priority bird and fish habitats respectively. These efforts offer ideal opportunities to bring climate change

<sup>4</sup> [www.fws.gov/birdhabitat/JointVentures/index.shtml](http://www.fws.gov/birdhabitat/JointVentures/index.shtml)

<sup>5</sup> [fishhabitat.org/](http://fishhabitat.org/)

information into existing resource management planning to ensure management actions advance adaptation in a changing climate. Such efforts can also draw upon a growing number of important tools and approaches for adaptation planning and action. For example, the Climate Adaptation Knowledge Exchange (CAKE),<sup>6</sup> a joint project from EcoAdapt and Island Press, provides detailed information and access to information, tools, and case studies on adaptation to climate.

Many tribal governments and organizations understand the need to adapt as they are already experiencing the impacts of climate change on species, habitats, and ecosystems that are vital to their cultures and economies. For example, the Swinomish Tribe in the Pacific Northwest, which depends on salmon and shellfish, has developed the Swinomish Climate Change Initiative. This effort seeks to assess local impacts, identify vulnerabilities, and prioritize planning areas and actions to address the impacts of climate change, and can serve as an example for other tribal governments.

A number of climate adaptation efforts are underway at the Federal level. Many Federal agencies have initiated efforts to assess risks and impacts of climate change, and design adaptation efforts to reduce these risks. Federal agencies with natural resource management responsibilities like DOI, NOAA, USDA, EPA, and others have initiated a wide variety of efforts to better understand, monitor, prepare for, and respond to climate change impacts in their mission areas, including targeted science, the application of new tools and assessments, and training for natural resource decision

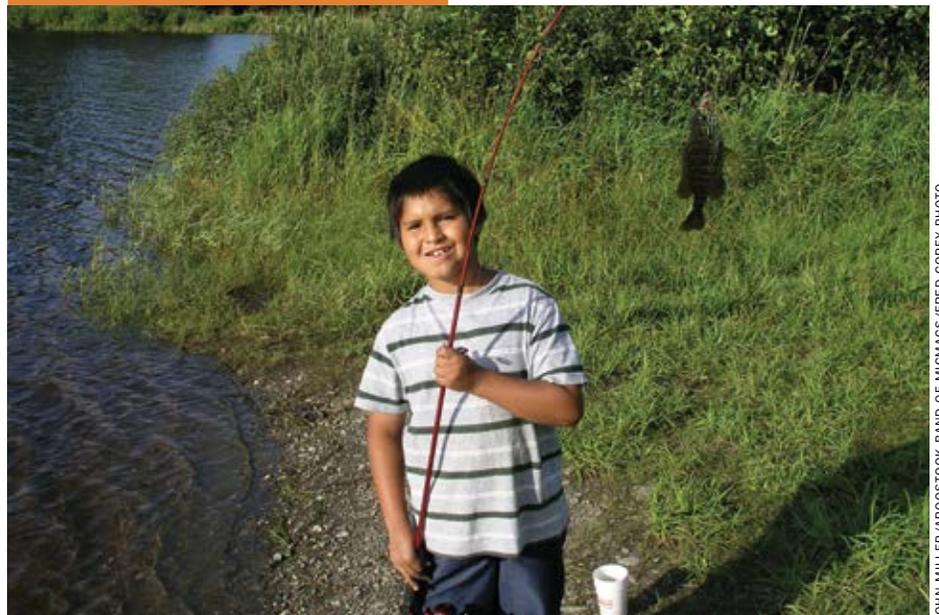
<sup>6</sup> [www.cakex.org](http://www.cakex.org)

makers and partners (CEQ 2010, 2011, Pew Center 2010, 2012). Many of the strategies and actions in this *Strategy* are based in part on efforts identified, planned, or implemented by one or more other agencies (federal, state, or tribal).

The USGCRP<sup>7</sup> is responsible for publishing a National Climate Assessment (NCA) every four years describing the extent of climate change in the United States and its impacts. The most recent national assessment was published in 2009, and provides the scientific foundation for this *Strategy*. The next assessment in 2013 will provide new information about impacts, opportunities, and vulnerabilities. Future NCAs will provide a basis for evaluating the effectiveness of the adaptation actions in this *Strategy* and determining next steps.

<sup>7</sup> [www.globalchange.gov](http://www.globalchange.gov)

Planning for climate adaptation will require a team effort involving federal, state, tribal, and local governments if it is to be successful.



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In addition, the USGCRP has produced a series of 21 Synthesis and Assessment Products on the current information regarding the sensitivity and adaptability of different natural and managed ecosystems and human systems to climate and related global changes. These reports address topics such as sea level rise (CCSP 2009a), ecosystem change (CCSP 2009b), agriculture, biodiversity, land and water resources (CCSP 2008d), adaptation options for climate-sensitive systems and resources (CCSP 2008c), energy production (CCSP 2007), human health (CCSP 2008a), and transportation (CCSP 2008b).

Another important entity is the ICCATF,<sup>8</sup> which was established in 2009 to help the federal government and partners understand, prepare for, and adapt to the impacts of climate change. The development of this *Strategy* was endorsed in the ICCATF's 2010 *Progress Report*

<sup>8</sup> [www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation](http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation)

## Integration & Implementation

to the President. The ICCATF has also launched other efforts to advance climate adaptation that both inform this *Strategy* and provide opportunities for the *Strategy's* implementation. One of these is the *Freshwater Action Plan*. Released in October of 2011, the *Freshwater Action Plan* describes the challenges that a changing climate presents for the management of the nation's freshwater resources, and recommends a set of actions federal agencies can take to help freshwater resource managers reduce the risks of climate change.

In addition, the National Ocean Council (NOC) is developing a series of actions to address the Resiliency and Adaptation to Climate Change and Ocean Acidification priority objective, one of nine priority objectives identified by the National Ocean Policy (NOP). These actions will address how the NOC will implement the NOP to respond to the challenges posed by climate change and ocean acidification. A *Draft Strategic Action Plan* outline was released for public comment in June 2011, and a draft *Implementation Plan* for the NOP was released for comment in January 2012. A final *Implementation Plan* is expected in 2012. This *Strategy* has been developed in coordination with both the *Freshwater Action Plan* and the *NOP Strategic Action Plan*, so that the three strategies support and reinforce each other.



Successful implementation will require partnerships, innovation, and passion.

In addition, following direction from Presidential Executive Order 13514 and the ICCATF, CEQ issued *Implementing Instructions* to all federal agencies to launch climate change adaptation planning with the first agency plans due in June 2012. This presents many opportunities for the resource management agencies involved in the development of this *Strategy* to develop their own agency-specific plans (if they have not already done so) and to interact with other agencies whose programs may influence their prospects for success. Many federal agencies have already conducted assessments of their vulnerability to climate change and are developing adaptation plans to reduce risks, respond to impacts, and take advantage of possible beneficial changes of a changing climate. This *Strategy* should serve as a useful resource to all these efforts.

## 5.2 Strategy Implementation

Successful implementation of this *Strategy* will take commitment and resources by government and non-government entities, and must include steps to formulate specific objectives, select and implement conservation actions, and evaluate, learn, and adjust our course of action as needed to achieve our goals in a changing world. Logical models for transitioning from the framework of the *Strategy* to more specific action plans are described by Peterson et al. (2011) and Glick et al. (2009).



SCOTT NEWHALL/TIME OUT CHARTERS

To ensure effective coordination, implementation, tracking, and updating of the *Strategy*, this report proposes the following steps:

- 1 **Federal, state, and tribal governments and conservation partners** should incorporate appropriate elements of the *Strategy* (goals, strategies, and actions) into their plans and actions at national to local levels (e.g., development of implementation plans by federal, state, and tribal governments).
  - » LCCs can play an important role in facilitating development of action plans to implement the *Strategy* that include specific objectives, actions, and commitments of resources appropriate to their geographic areas. The LCCs have a good mix of membership of state, federal, tribal and private conservation organizations, and operate at scales appropriate to successfully facilitate implementation of this *Strategy* through a collaborative process. CSCs, RISAs, and other regional collaborative efforts should incorporate appropriate elements of this *Strategy* as a resource for guiding their future science and assessment agendas and adaptation strategies.
  - » Many states have already incorporated climate change considerations in their State Wildlife Action Plans. Future revisions of these plans and other States' Wildlife Action Plans that lack climate change considerations should incorporate appropriate elements of this *Strategy*, AFWA's *Voluntary Guidance for States to Incorporate Climate Change into State Wildlife Action Plans and Other Management Plans*, and other appropriate resources

to design and deliver programs and actions that advance adaptation of fish and wildlife resources in a changing climate.

- » Federal members of the *Strategy* Steering Committee will coordinate lead roles, responsibilities, and milestones for implementation of the *Strategy* across the federal sector.
- » Federal agencies with programs that affect fish, wildlife, and plants and the habitats they depend on should ensure that ongoing agency adaptation planning efforts under Executive Order 13514 reflect and align with the recommendations, strategies, and actions of the *Strategy*.
- » The ICCATF should continue to facilitate coordination and interaction among federal agencies regarding this *Strategy* and other climate adaptation planning efforts at both the national and regional level.

- 2 **An inter-jurisdictional coordinating body with policy maker representation and staff support** from federal, state, and tribal governments should be established. This body should meet biannually to monitor performance and evaluate implementation of the *Strategy* and report its findings to the public.
  - » This coordinating body will be tasked with promoting awareness, understanding, and use of the *Strategy* as a key tool in addressing climate change.
  - » Starting in June 2014, the coordinating body, with support from DOI, NOAA, and CEQ, should start a revision of the *Strategy*, to be completed by June 2015. This revision will incorporate information produced by the 2013 NCA.
  - » The coordinating body will establish a mechanism to engage representatives of non-governmental organizations, natural resource industries, private landowners, and international conservation partners to assist with *Strategy* implementation and revision.



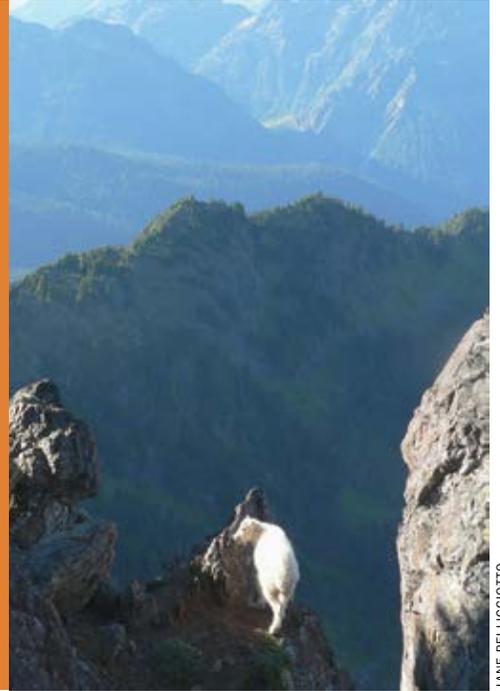
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## Integration & Implementation

- » The coordinating body will work with regional conservation collaboratives such as LCCs to facilitate transition from the framework of this *Strategy* to geographically specific implementation action plans.
- » The coordinating body will develop a process and tools, including the Progress Checklists of this *Strategy*, to evaluate implementation and shall include an assessment of implementation in their annual report.
- » The coordinating body will work with the ICCATF to facilitate efficient communication and coordination among federal agencies and between federal agencies and state and tribal governments. The coordinating body should facilitate these interactions in a way that fosters clear, consistent, and efficient communication and avoids duplication of effort.
- » The FWS, NOAA, and AFWA will collaborate to staff and support the work of the coordinating body.

**This *Strategy* is the beginning of a significant collective effort to safeguard the nation’s fish, wildlife, plants, and the communities and economies that depend on them in a changing climate. A challenging task lies ahead, and much remains to be learned about the specific impacts of climate change and the responses of plants, wildlife, and ecosystems.**



JANE PELLICCIOTTO

New climate change and adaptation science is coming out almost daily and will help guide the way. But we know enough now to begin taking effective action to reduce risks and increase resiliency of these valuable natural resources—and we cannot afford to wait to respond to the changes we are already seeing or to prepare for those yet to come. Unless the nation begins a serious effort to undertake this task now, we risk losing priceless living systems—and the countless benefits and services they provide—as the climate inexorably changes.

This *Strategy* offers a common framework for meaningful adaptation response, and will help ensure that the nation’s valuable fish, wildlife, plants, and ecosystems continue to the benefit of our nation, our communities and our economy for years to come.