# The Central Appalachians Climate Change Response Framework

The Central Appalachians region is a landscape covering 26 million acres across Ohio, West Virginia, and Maryland. The forests in this region contain part of the oldest and most biologically diverse forest systems in the world. These forests include 80 tree species, including the most primitive forms of flowering plants, the tulip poplar and magnolias. This vast landscape sustains our communities in many ways: economically, culturally, and environmentally. Many of the things we value, however, may be at risk from adverse impacts of climate change. Understanding and managing the impacts of climate change on the Central Appalachians' diverse forests will help us maintain their many benefits.

*The Central Appalachians Climate Change Response Framework will provide an integrated set of tools, partnerships, and actions to support climate-smart conservation and management actions across Ohio, West Virginia, and Maryland.*

## Project Summary

Climate change will likely present some opportunities, but will also very likely pose a distinct threat to many of the region's forests and waters. Land managers face the daunting challenge of integrating the inherent uncertainties of a changing climate into near-term decisions, perhaps taking advantage of opportunities even as they cope with new or enhanced stresses. How should the agency land manager or the private forest owner manage forests right now in the face of this uncertainty, and how should we adapt management over time? Which forest communities can be maintained through careful stewardship, and for how long? How can some forest communities be better adapted to a new climate, and when should we begin facilitating this transition? We will continue to learn the answers to these questions for some time, yet enough is known already to help inform decisions as we all grapple with the uncertainties. To meet this challenge, a team of people representing federal and state land management agencies, private forest owners, conservation organizations and others from Ohio, West Virginia, and Maryland initiated this project in 2012 to accomplish three objectives:

- Provide a forum to share experiences and lessons learned across the Central Appalachians landscape

- Develop tools and resources to help land managers incorporate climate information into management

- Implement adaptive responses to climate change impacts in the Central Appalachians

## Expected Outcomes

- Partnerships that foster dialogue between landowners in order to address climate change across the landscape, and engage scientists in research on climate change, ecosystem response, and social and economic impacts relevant to the Central Appalachians region.

- Ecosystem Vulnerability Assessment and Synthesis synthesizes research about projected changes in climate and impacts on forest ecosystems in order to provide critical information to land managers. These assessments identify the species, ecosystems, and other features that are most vulnerable to the effects of climate change.

- Climate change adaptation resources, including the *Forest Adaptation Resources* document that includes a "menu" of climate change adaptation strategies and a process for managers to devise management tactics to adapt forests to climate change.

- Demonstration Projects use the resources described above to provide real-world examples of how managers have integrated climate considerations into planning and activities. These projects grow partnerships and test new ideas and actions.