The Northern Institute of Applied Climate Science and USDA Northern Forests Climate Hub are offering the Forest Adaptation Planning and Practices training as an online course for forest managers (in a series of seven 1.5-hour sessions).

This unique opportunity provides hands-on training in considering climate change information and identifying adaptation actions for natural resources management professionals working in forests and natural ecosystems, urban forests and green infrastructure, and those who focus on enhancing hydrology in forested watersheds. Participants will receive coaching and feedback on their own real-world climate adaptation project throughout the course.

**PARTICIPANTS WILL BE ABLE TO:**

- Identify locally-important climate change impacts, challenges, and opportunities
- Develop specific actions to adapt forests to changing conditions
- Use the Adaptation Workbook to create their own “climate-informed” projects
- Better communicate with stakeholders about key climate change impacts, challenges, and opportunities
- Access post-training support from NIACS staff during project planning and implementation

**DATES & FORMAT**

Weekly January 20 – March 13, 2020

Seven sessions. Each session (1.5 hours) follows this format:

- Group discussions and lectures.
- We will then split the group into smaller group sessions based on topic or geography

**GEOGRAPHIC FOCUS**

Information will focus on forest ecosystems, urban forests, and forested watersheds in the Midwest and Northeast, but applicants from other regions may be accepted if space allows.

**REGISTER ONLINE**

www.forestadaptation.org/APPonline2020

There is no registration fee thanks to support from the US Forest Service and USDA Northern Forests Climate Hub.

**QUESTIONS?**

Contact: Maria Janowiak (maria.janowiak@usda.gov), and Danielle Shannon (dshannon@mtu.edu)
WHO SHOULD PARTICIPATE?

This training is designed for natural resources professionals working in forests and associated ecosystems in rural landscapes, urban communities, and forested watersheds throughout the Midwest and Northeast. This includes foresters, natural resource managers, community foresters, conservation and non-profits, county and municipal employees, consultants working on public, tribal, and private lands. Professionals providing Extension, service forestry, or technical assistance to foresters and woodland owners are also encouraged to participate. Individuals as well as small teams can participate in the course.

We ask participants to bring their own real-world projects. Example projects could include:

• a forest management or stewardship plan for a property, parcel or watershed
• a timber sale or harvest plan for a single stand or multiple stands
• a habitat management plan for a wildlife species
• a restoration project in an urban natural area
• an urban development project that incorporates natural landscape features

Examples of Adaptation Demonstration projects that have used the Adaptation Workbook are online at www.forestadaptation.org/demos.

HOW DOES THE ONLINE COURSE WORK?

The seven-week online course draws on a combination of regular webinars and discussions with all participants, as well as independent work time to create adaptation projects. Throughout the course, participants will develop (individually or in small groups) their own climate-informed adaptation project.

- **Seven 1.5-hour web meetings** bring together all course participants to present and discuss key concepts, and smaller group sessions to share insights and questions related to individual projects. We expect participants to attend all sessions, but meetings will be recorded for those who may need to miss a session. **The weekly meeting time will be determined based on the availability of participants.**

- **Assignments** will guide participants through the new material, actively engaging them with recorded presentations, the online Adaptation Workbook, and other activities. Participants will be assigned work to complete before each session, which is generally expected to take 2-4 hours to complete.

Interested? Please register online by December 20, 2019

www.forestadaptation.org/APPonline2020
Registered participants will receive instructions regarding how to prepare for the training in advance of the first meeting session. Prior to the training, participants are asked to identify a project to be used during the training and provide some additional information to course instructors.

Session 1 (week of January 20) — Course Introduction; Defining Project Goals and Objectives
- Course objectives, instructors, and agenda
- Introduction to the Adaptation Workbook tool (tutorial)
- Defining project scope and management goals/objectives
- Assignment 1: Define project goals and objectives (complete in preparation for Session 1)

Session 2 (week of January 27) — Defining Project Goals and Objectives
- Climate projections and impacts on tree species, ecosystems, and regions
- Prioritizing vulnerabilities of greatest concern for management goals/objectives
- Assignment 2: Assess climate impacts and vulnerabilities.

Session 3 (week of February 3) — Evaluating Management Challenges and Opportunities
- Re-considering and revising management goals/objectives in light of climate challenges
- Practice articulating climate-adaptive management goals/objectives
- Assignment 3: Evaluate objectives considering climate impacts.

Break (week of February 10) — No session
- Use extra time to catch up on projects and have office hours with instructors

Session 4 (week of February 17) — Identifying Adaptation Strategies, Approaches and Tactics
- Meeting existing demands while preparing for future conditions
- Adaptation concepts: resisting change, enhancing resilience, and facilitating transitions
- Developing specific actions for climate-change adaptation
- Assignment 4: Identify adaptation approaches and tactics.

Session 5 (week of February 24) — Monitoring and Evaluating Effectiveness
- Tools for measuring effectiveness of implemented adaptation actions
- Capitalizing on existing data, inventory or monitoring processes/partnerships
- Assignment 5: Monitor effectiveness of implemented actions.

Session 6 (week of March 2) — Telling your Adaptation Story, Part 1
- Tools for measuring effectiveness of implemented adaptation actions
- Capitalizing on existing data, inventory or monitoring processes/partnerships
- Assignment 6: Complete adaptation project plans.

Session 7 (week of March 9) — Telling your Adaptation Story, Part 2
- Summarizing and pitching adaptation plans to partners, clients, and others
- Next steps for implementation

International Society of Arboriculture and Society of American Foresters Continuing Forestry Education credits have been requested for this course.
This training will be led by a team of experienced instructors specializing in climate adaptation:

**Leslie Brandt**, Northern Institute of Applied Climate Science & US Forest Service
Leslie serves as coordinator for the Urban Forestry Climate Change Response Framework, and lead author of the Chicago Wilderness region urban forest vulnerability assessment and synthesis, which served as a pilot for vulnerability assessment of urban trees and forests.

**Maria Janowiak**, Northern Institute of Applied Climate Science & US Forest Service
Maria Janowiak is the coordinator for the New England Climate Change Response Framework, serving the states of New York, Vermont, New Hampshire, Maine, Massachusetts, Connecticut, and Rhode Island. Maria has been working with land managers on issues related to climate change and adaptation since 2007.

**Patricia Leopold**, Northern Institute of Applied Climate Science & Michigan Technological University
Patricia Leopold is the coordinator for the Climate Change Response Framework in the Central Appalachians (OH, WV, MD) and the Mid-Atlantic (PA, NY, NJ, DE, MD). Patricia has been working to develop climate change tools and resources with NIACS since 2009.

**Todd Ontl**, Northern Institute of Applied Climate Science & USDA Climate Hubs
Todd is the Fellow for the USDA Northern Forest Climate Hub focuses on evaluating the diverse array of adaptation demonstration projects developed through the Climate Change Response Framework to understand decision-making for climate adaptation in forest management. The goals of his work are to improve collaboration with stakeholders as well as inform field research and landscape modeling efforts intended to understand the ecological outcomes of adaptation.

**Danielle Shannon**, Northern Institute of Applied Climate Science & Michigan Technological University
Danielle Shannon is the coordinator of the USDA Northern Forests Climate Hub. Danielle connects audiences to forest adaptation resources and experts across the eastern US. Danielle is focused on working with land managers to use NIACS resources on the topic of forest hydrology and the management of forested watersheds and non-forested wetlands.

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**REGISTER!**

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Interested individuals or teams should register at:
www.forestadaptation.org/APPonline2020

**Have more questions?**
Contact Maria at maria.janowiak@usda.gov or Danielle at dshannon@mtu.edu to learn more about the course and whether it’s right for you.