Forests as Climate Solutions

Climate-Oriented Forest Management Guidelines Public Input Session

Commonwealth of Massachusetts

Executive Office of Energy and Environmental Affairs

November 14, 2023

Language Translation Services

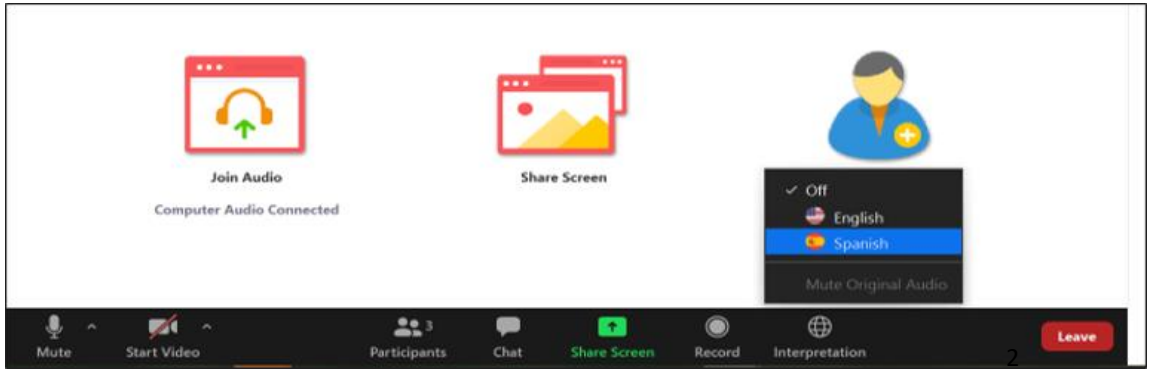
- We are providing Spanish and Portuguese translation services for this session
  - All attendees must select a language channel, even if viewing the presentation in English
  - The Spanish- and Portuguese-translated recordings will be posted to the Forests as Climate Solutions website
- Please speak slowly
- If you would like a version of the slides or today's presentation translated to another language, please email guidelines@mass.gov
- Please provide oral and written comments in your preferred language, and we will ensure translation occurs upon conclusion of this session

Please Note: *We are using the Zoom webinar platform, which has certain technology limitations to be discussed during "logistics." Please use "Q&A" function to submit logistical or clarifying questions.*

To participate in English, click the "Interpretation" icon and select English

Si alguien desea interpretación en español, haga clic en "Interpretation" y seleccione "Spanish"

Para entrar no canal em português, clique no ícone "Interpretation" e selecione "Portuguese"



Welcome and Introductions

Agenda

- ***Language Translation Services***
- ***Welcome and Introductions***

- **Forests as Climate Solutions Overview**
  - **Update on Work of "Branches"**

- **Climate Forestry Committee**
  - **Background & Update**
  - **Overview of Climate-Oriented Guidelines Categories & Themes**

- **Public Input Session Overview**
  - **Logistics**
  - **Public Input Opportunity**

- **Wrap Up & Next Steps**

Introduction: Forests as Climate Solutions

Healey-Driscoll Administration announced Forests as Climate Solutions in June 2023

Keep Forests as Forests

- Protect 40% of the Commonwealth by 2050
- Expand protection, management & restoration of forests and their capacity to remove/store carbon
- Incent sustainable forest management practices and use of local wood products

Components

- Accelerate investment in forest conservation
- Enhance & expand a network of forest reserves
- Expand landowner incentive programs
- Develop forest management guidelines based on the latest climate science

Forests as Climate Solutions "Branches" - Updates

- **Conservation**
  - **Reduce Forest Land Conversion & Increase Permanent Forest Land Conservation**
  - **Expand Forest Reserves**

- **Incentives**
  - **Support Forest Landowners, Businesses, & Rural Communities**

- **Data & Transparency**
  - **Integrate & Make Public Best Science, Research, & Management Practices**

Climate Forestry Committee

EEA has convened the Climate Forestry Committee (CFC) to seek scientific and expert guidance and recommendations to help the state ensure its forestry land management decisions are prioritizing climate mitigation and resilience, informed by the latest science.

- The Committee is charged with developing and enhancing a set of recommended climate-oriented management guidelines to be implemented through incorporation into land management plans and forestry approaches for DFW and DCR state park and water supply lands, as well as advanced through incentive programs for forestry on land held by others.

State Perspective

- The state seeks to protect and manage forests in a way that achieves resilience to projected disturbances from climate change and ensures stable carbon sequestration and storage for climate change mitigation.

- We want to understand the latest thinking and science around carbon and climate change mitigation, which is a primary determinant driving decision-making for state lands management, balanced with other important priorities such as habitat preservation, biodiversity, and water quality, each of which is also affected by climate change.

- Strategic application of the climate-oriented management guidelines will be important. Given the complexity, diversity and dynamic nature of our forests and their conditions, there is no single set of policies or actions that would be prudent to apply wholesale across state lands. Rather, we will set goals, prioritize ecosystem services and values we are managing for, including biodiversity, and develop standard operating procedures, management plans, and the like to advance them.

Climate Forestry Committee

Committee Charge

- Defining goals and objectives of climate-oriented forestry for Massachusetts, including clarifying the range of objectives that should be considered relevant;
- Evaluating best practices for climate-oriented forestry and the science supporting them;
- Assessing current climate-oriented practices and guidelines in place for state lands; and
- Developing and enhancing a set of recommended climate-oriented management guidelines to be implemented through incorporation into land management plans and forestry approaches for DFW and DCR state park and water supply lands, as well as advanced through incentive programs for forestry on land held by others.

•Richard Birdsey, Senior Scientist, Woodwell Climate Research Center

•Paul Catanzaro*, State Extension Forester & Professor, UMass Amherst

•Tony D'Amato*, Professor, Forestry Program Director, Univ. of Vermont

•David Foster, Former Harvard Forest Director; Professor, Harvard University

•Ali Kosiba*, Extension Assistant Professor of Forestry, Univ. of Vermont

•Meghan MacLean, Lecturer of Quantitative Ecology, UMass Amherst

•Laura Marx, Climate Solutions Scientist, The Nature Conservancy

•William Moomaw, Professor Emeritus, International Environmental Policy, Fletcher School, Tufts University

•Todd Ontl, Climate Adaptation Specialist, U.S. Forest Service

•Christopher Riely*, Forester & Conservationist, Sweet Birch Consulting, LLC

•Jen Shakun*, Bioeconomy Initiative Director, New England Forestry Foundation

•Jonathan Thompson, Research Director & Senior Ecologist, Harvard University/Harvard Forest

** Licensed Forester*

Development of Climate-Oriented Guidelines

Overview

- Intended to protect forest health, ecosystem integrity, and existing carbon stocks and sequestration capacity.
- Context for the Guidelines recognizes the distinct missions of state lands.
- EEA has developed statements that reflect some themes and considerations of the Climate Forestry Committee.
- Seeking input on level of support for statements, to inform the State's consideration of the guidelines and recommendations the Committee is developing.

Guidelines Categories

- **Keep Forests as Forests**
- **Forest Management for Habitat**
- **Disturbances**
- **Carbon Stocks and Sequestration**
- **Soils**
- **Resilience**
- **Invasive Insects and Disease**
- **Invasive Plants**
- **Wood Production**

Climate-Oriented Guidelines: Categories & Themes

Keep Forests as Forests

Reduce the conversion of forests to other land uses and increase permanent conservation of forested lands.

Forest Management for Habitat

Review existing state habitat goals and pursue the most carbon sensitive ways to create and maintain habitat for species that require open, grassland areas (early successional).

Disturbances

While their frequency and intensity has been increased by climate change, disturbances (e.g., severe weather events, insect outbreaks, disease) are fundamental and necessary forest ecosystem processes. Disturbances increase the biodiversity, structural complexity, and the dead wood that Massachusetts' forests generally lack due to intensive historic land uses.

Climate-Oriented Guidelines Categories & Themes

Carbon Stocks & Sequestration

Carbon stocks are typically greatest in older forests and in the largest trees. Forest reserves with minimal or no tree harvesting are therefore important for maintaining carbon stocks. Young and middle-aged forests generally sequester carbon at higher rates than older forests, but managing forests for the narrow life stage of maximal carbon sequestration is impractical and undesirable. Instead, managing for a diverse range of ages and developmental stages across forest landscapes is the optimal means of promoting carbon sequestration and many other forest ecosystems services.

Soils

Soils are the largest carbon pool in Massachusetts' forest ecosystems, generally storing more carbon than is stored in living biomass. Forest soil carbon can be protected by requiring harvesting practices that reduce forest soil disturbance and preserve their structural integrity and diversity of fungi and other organisms.

Climate-Oriented Guidelines & Themes

Resilience

[*There are different schools of thought among Climate Forestry Committee Members regarding resilience.*]

1. **Massachusetts' forests are inherently resilient and do not require human intervention. Ecological processes, including disturbances and forest regeneration, should be allowed to unfold without intervention.**
2. **Climate change is creating new conditions that highly stress and threaten Massachusetts' forests. Active forest management can create forest conditions, including a diversity of climate-adapted species and varied age classes, that will increase forest adaptive capacity to future stressors and promote resilience to ecological disturbances, and therefore should occur.**

Climate-Oriented Guidelines Categories & Themes

Invasive Insects & Disease

Invasive insects and disease can cause tree mortality that results in carbon emissions to the atmosphere. Active management activities, including tree harvesting, should be employed if a novel infestation may be eradicated through rapid response. Proactive harvesting in response to infestations of established insects and diseases should only occur in limited circumstances with clear rationales.

Invasive Plants

Invasive plants that can cause significant tree mortality and negatively impact forest regeneration, such as climbing vines, should be removed when feasible.

Wood Production

Active management of public lands produces only a small volume of wood. This is because wood production is incidental to management of public lands for other objectives, including services like habitat, water supply, and recreation. Total wood production in Massachusetts is about 5-7% of our wood consumption. More wood, especially long-lived wood products, should be sourced from Massachusetts forests, with some contribution from state lands.

Public Input - Logistics

Zoom Logistics

- We are using the Zoom webinar platform, which has certain limitations
- Please use Q&A function for logistical or clarifying questions

Oral Comments

- If an attendee wishes to speak, attendee must sign up via the form that was distributed via the event notice email, webpage, and Zoom registration. This link will also be posted in the chat
- List of registrants will be posted in the chat and called upon in sign-up order
- When it is time for registrant to speak, we will read aloud the registrant's name, and enable the registrant to unmute, at which point the registrant may begin speaking
- Speaking time is limited to three minutes, which will be visible via the on-screen timer

Other

- Written comments can be shared via the survey form on EEA's Forests as Climate Solutions webpage
- Submission of written comment related to this session by Tuesday, November 21 at 5pm will facilitate consideration
- Please sign up for the email list on the Forests as Climate Solutions webpage
- If you have any additional comments or questions not related to this public listening session, or wish to share any attachments, submit them to guidelines@mass.gov

Thank You

Please visit the Forests as Climate Solutions webpage for background and for updates:
https://www.mass.gov/info-details/forests-as-climate-solutions

- Written comments can be shared via the form on the webpage. Submission of written comment related to this session by Tuesday, November 21 at 5pm will facilitate consideration

- If you wish to receive future email updates related to this initiative, please sign up on the webpage

- If you have any additional comments or questions not related to this public input session, or wish to share any attachments, please submit them to guidelines@mass.gov