The Critical Role of Forests in Protecting Climate and Public Health
A Forum Presented by the Massachusetts Attorney General's Office

The international community and the Commonwealth have committed to achieve net zero carbon emissions by 2050. While there has been a significant focus on reducing greenhouse gas emissions from the energy, buildings, and transportation sectors, the forestry and land use sector has received less attention. The science demonstrates that it will be critically important to have sufficient forests to remove the remaining additions of carbon dioxide to the atmosphere during the next three decades to achieve net zero carbon. This Forum will examine the key role of forests in protecting climate and public health; implications for forest management practices; issues concerning how much forest must be maintained to meet our climate goals and how much may be managed for forest product production; and why bioenergy is not compatible with a net zero future.

Agenda

12:00-12:05 -- Introduction, Melissa Hoffer, MA AGO

12:05-12:20 -- Big Picture: Climate Goals & Forest Sinks, Bill Moomaw, Tufts University

12:20-12:35 -- Forest Management Consequences & Opportunities, Richard Birdsey, Woodwell Climate Research Center

12:35 – 12:50 -- Bioenergy, John Sterman, MIT

12:50 – 1:00 -- Q&A and Discussion

1:00 -- Conclusion

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Presenter Biographies

Richard A. Birdsey, PhD is a Senior Scientist at the Woodwell Climate Research Center, and a specialist in quantitative methods for large-scale forest inventories and has pioneered development of methods to estimate national carbon budgets for forest lands from forest inventory data. He retired from the U.S. Forest Service as a "Distinguished Scientist" and was the Program Manager for global change research in the Northern Research Station. He was a lead author of 2 Special Reports for the Intergovernmental Panel on Climate Change which was awarded the Nobel Peace Prize in 2007. He was a lead author of the first North American "State of the Carbon Cycle" report and a member of the science team guiding the second report, published in 2018. He served as the forestry expert on a synthesis report by the National Academy of Sciences titled "Negative Emissions Technologies and Reliable Sequestration: A Research Agenda", published in 2018. He has published extensively on forest management and strategies to increase carbon sequestration, and facilitated the development of decision-support

tools for policy and management. He is currently working with U.S. counties and communities to assist them with including forests as part of their greenhouse gas inventories and climate change mitigation strategies.

Dr. William R. Moomaw is Professor Emeritus from Tufts University, with a 32 year career in climate science and policy research. He received his PhD from MIT in Physical Chemistry and shifted the focus of his laboratory work on light induced chemical changes to atmospheric issues including stratospheric ozone depletion in 1975, and to climate change in 1988 when he became the first director of the World Resources Institute Climate Program. At WRI he helped to develop the world's first carbon offset program by forests. Since then, he has been a lead author of 5 major Intergovernmental Panel on Climate Change reports and coordinated the writing of two of them including the Special Report on Renewable Energy that included bioenergy. He is the author or co-author of 46 reports for the US government and for international organizations, numerous book chapters, two books and has published highly cited papers on renewable energy, forests, carbon, climate and sustainability. He was a member of the Massachusetts Forest Futures Visioning Technical Panel that published its report to EEA in 2010, and was also a co-author of the Massachusetts Climate Adaptation report in 2011. He serves on the boards of directors for several organizations including Woodwell Climate Research Center, and is chair of the US board for The Climate Group North America. He is an elected Fellow of the American Association for the Advancement of Science.

Dr. John Sterman is the Jay W. Forrester Professor of Management at the MIT Sloan School of Management, Professor in MIT's Institute for Data, Systems and Society, and director of the MIT System Dynamics Group and MIT Sloan Sustainability Initiative. Prof. Sterman has published approximately 200 works spanning corporate strategy and operations, energy policy, public health, and climate change. Author of award-winning books and papers, he pioneered the development of interactive "management flight simulators" of corporate and economic systems, which are now used by governments, corporations, and universities around the world. These include the C-ROADS and En-ROADS energy and climate policy simulations, developed in partnership with the non-profit, Climate Interactive, which have been used by policymakers, negotiators, business and civil society leaders, educators and the public around the world. Prof. Sterman is an elected fellow of the American Association for the Advancement of Science, has been recognized for his work with an honorary doctorate and numerous other honors, including eight awards for teaching excellence at MIT. His work is often featured in the media, from the New York Times, Washington Post, and National Public Radio to Vice News Tonight. Prof. Sterman holds an AB in engineering and environmental systems from Dartmouth College and a PhD in system dynamics from MIT.

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