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MEDIA ADVISORY: UNH Scientists Available for Comment on Four-Pollutant Legislation

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DURHAM, N.H. , The U.S. Senate Environment and Public Works Committee approved controversial four-pollutant legislation by a narrow 10-9 vote last Thursday that would set first-ever restrictions on power plant emissions of mercury and the greenhouse gas carbon dioxide. The bill also set restrictions on acid-rain causing sulfur dioxide and smog-forming nitrogen oxides. New Hampshire and Massachusetts have passed similar legislation clamping down on the big four power plant emissions. Republicans called the national measure dead before it gets to the Senate floor; the Bush administration is vehemently opposed to any cap on carbon dioxide emissions on the grounds the cost of complying would be devastating to U.S. industry. The Institute for the Study of Earth, Oceans, and Space (EOS) at the University of New Hampshire houses several prominent scientists within the Climate Change Research Center and the Complex Systems Research Center, including the N.H. state climatologist and a lead author within the Intergovernmental Panel on Climate Change, who can comment on this legislation. The New England Regional Assessment report was coordinated and released this year by EOS as part of a national assessment of potential climate change impacts on different regions of the country.

**Global Climate Change and Human Activities in the
New England Region
Barry Rock (603) 862-2949**

Barry Rock, professor of natural resources in EOS, is interested in long and short-term global changes and the

processes controlling interactions between climate, ecosystems and human activities. Rock is the project coordinator for the New England Regional Assessment of the Potential Consequences of Climate Variability and Change. He is also director of the Forest Watch program, and he was the first senior scientist for the Global Learning and Observations to Benefit the Environment (GLOBE) program.

"As project coordinator of the New England Regional Assessment effort, I became very much aware of the impact that past climate change from 1895-1999 had on New England, particularly New Hampshire. If the climate models are even close to correct then the impact over the next 100 years will be profound and will change New England in very fundamental ways. New Hampshire was the state found to be most heavily impacted by the warming trend of the recent past. Human activities - notably greenhouse gas emissions and deforestation - have clearly resulted in the trends of the past, thus it becomes very important that we limit our carbon dioxide emissions and deforestation activities."

**The Science of Global Climate Change and its
Consequence
George Hurtt, (603) 862-3136**

George Hurtt, assistant professor of natural resources in EOS, combines data and models to study the dynamics of ecosystems and the interactions between the atmosphere and biosphere. He is a co-author and scientific spokesperson for the New England Regional Assessment of the Potential Consequences of Climate Variability and Change. He has briefed the U.S. Congress on the state of scientific understanding regarding climate change in New England, and testified to the N.H. House on the four-pollutant legislation.

"There is widespread scientific consensus that carbon dioxide is a greenhouse gas, is increasing in the atmosphere, and is already contributing to global warming. If carbon dioxide continues to accumulate in the atmosphere, it is likely to cause additional changes in climate that are disruptive and largely negative. To prevent this, global emissions of carbon dioxide must be reduced, and this includes reducing emissions from New Hampshire. How best to reduce emissions is not

purely a scientific question, and requires input and choices from both policymakers and the public at large."

Historical Climate Records
Cameron Wake, (603) 862-2329

Cameron Wake, research assistant professor of Earth sciences in EOS, researches the development of climate records through the recovery and analysis of ice cores. Over the past decade, he has been involved in research expeditions to Nepal, China, Pakistan, the Canadian Arctic, Greenland and Antarctica. He is currently investigating the impact of anthropogenic emissions on climate in New England through the AIRMAP project, and testified before the N.H. House on the four-pollutant legislation. Wake recently returned from a successful ice-coring expedition to the Canadian Yukon.

"We know from current monitoring programs combined with analysis of ice cores that we have caused dramatic change in the chemistry of the atmosphere, with respect to greenhouse gases, acid aerosols, and trace metals. The new four-pollutant bill in New Hampshire addresses reductions in these types of atmospheric pollutants. The real value of this bill is that it addresses several aspects of the air pollution problem, including global warming and acid rain. This is a great step forward for New Hampshire and a good example for the rest of the nation to follow."

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