News Release

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Contacts:
David Sleeper, Executive Director, Hubbard Brook Research Foundation;
(603) 653-0390 ext. 104; dsleeper@hbresearchfoundation.org
Rodger Krussman, Project Manager, Trust for Public Land
(802) 223-1373; ext. 13; rodger.krussman@tpl.org

Hubbard Brook Research Foundation and Trust for Public Land Acquire Key Property at Mirror Lake

Woodstock, NH: The conservation of 19 acres at Mirror Lake in Woodstock has added security to the future of the world-renowned Hubbard Brook Ecosystem Study. The Hubbard Brook Research Foundation (HBRF) and the Trust for Public Land (TPL), two nonprofit conservation organizations, yesterday acquired a key 19-acre property adjacent to Mirror Lake. This parcel was threatened with high-density development of time-share condominiums and single-family residences. Such development may have jeopardized the ecological research record compiled for the past 40 years at Mirror Lake. The transaction was made possible with key support from the Open Space Conservancy, a subsidiary of the Open Space Institute, and a consortium of other organizations.

In March of this year, Woodstock residents voted overwhelmingly to support the transfer of the open land on the site to the U.S. Forest Service. Mirror Lake, which has been called the most studied lake on the planet, has provided baseline ecological information used throughout the globe by ecosystem scientists and policymakers. A 1968 study by Hubbard Brook scientists first documented the acidity of precipitation in North America. Later studies at Mirror Lake and the surrounding forest linked the phenomenon called “acid rain” to increasing levels of air pollution.

For the past year, the Hubbard Brook Research Foundation has worked with the Trust for Public Land, the United States Forest Service, townspeople in Woodstock, NH, and other private citizens to protect the Mirror Lake property. In cooperation with the New Hampshire Congressional Delegation, the Trust for Public Land will seek to complete a boundary expansion of the White Mountain National Forest so that a portion of this land can be sold to the U.S. Forest Service. Most of the remaining land will continue to be owned by HBRF to provide much needed housing for scientists and researchers who take part in the multifaceted Hubbard Brook Ecosystem Study. As part of the transaction, a private buyer purchased a single-family house and will donate a conservation easement to HBRF.

The Hubbard Brook Research Foundation and Trust for Public Land hope to conserve the Mirror Lake property from future development in order to:

- preserve the integrity of the ongoing research at Mirror Lake;
- ensure permanent access to monitoring sites in and around Mirror Lake;
- secure needed housing facilities for Hubbard Brook scientists;
- preserve the lake's scenic and recreational attributes; and
- conserve land that serves as a wildlife corridor between the lake and forested land to the west and north.

Senator Judd Gregg, R-NH, who has been instrumental in helping to provide research funds for the Hubbard Brook Ecosystem Study, said: "The health and future of the White Mountain National Forest has always relied on the hard work and innovative ideas of local residents and community officials. That is why I am very pleased that the Hubbard Brook Research Foundation and Trust for Public Land have reached out to conserve Mirror Lake, one of New Hampshire's most scenic lakes. The acquisition of the Mirror Lake property ensures that the lake will not only be protected, but will serve as a site for important research on the health of forest ecosystems."

According to David Sleeper, Executive Director of the Hubbard Brook Research Foundation, "An extraordinary coalition of partners – led by the Trust for Public Land and the Open Space Institute – came together to make this vital transaction happen. This project has environmental ramifications far beyond simply protecting 19 acres at Mirror Lake. Scientists at the Hubbard Brook Ecosystem Study will use the land and housing at Mirror Lake to do research which will benefit ecosystem scientists and policymakers throughout the world."

Rodger Krussman, the Project Manager for TPL who has overseen the purchase effort, said that "we are very excited to have worked with Hubbard Brook Research Foundation and the various other supporters to protect another portion of Mirror Lake forever. We look forward to reaching the ultimate goal of making this valuable ecological area part of the National Forest." TPL was also instrumental in protecting 30 acres at Mirror Lake in 1989.

The partnership of conservation organizations was successful in securing emergency loan funds of $2,093,000 that were used to acquire the property. The loan funds (and in some cases, loan guarantees) came from the Open Space Institute, the Trust for Public Land, Cornell University, Syracuse University, Dartmouth College, and the New Hampshire Charitable Foundation. Now HBRF trustees and staff will mount a comprehensive capital campaign, the first goal of which will be to pay back the lenders who helped to protect the property at Mirror Lake. Other longer-term objectives of the campaign will be to establish an endowment or "safety net" fund to ensure the security of long-term ecological monitoring at Mirror Lake and throughout the Hubbard Brook ecosystem.

The Hubbard Brook Research Foundation is an environmental think tank and support group that works to sustain and expand long-term ecological monitoring and research at the Hubbard Brook Experimental Forest. A prime mission of HBRF is to bridge the gap between ecosystem science and public policy by enhancing the exchange of information among scientists, policymakers, and land managers. For more information, please visit www.hubbardbrook.org.

The Trust for Public Land (TPL) is a national nonprofit organization that works with others to conserve land for people to enjoy as working landscapes, parks, gardens, and natural areas, ensuring livable communities for generations to come. Since its founding in 1972, TPL has helped protect more than 1.6 million acres in 45 states including over 200,000 acres in New Hampshire. For more information, please visit www.tpl.org/newhampshire.

To request photos:
Please contact Judy Brown: 603-653-0390 or jbrown@hbresearchfoundation.org

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Mirror Lake and the Hubbard Brook Ecosystem Study
Fact Sheet

The Hubbard Brook Experimental Forest is a beautiful 7,600-acre tract of land in central New Hampshire that was set aside by the United States Forest Service in 1955 and dedicated to the long-term study of forest and aquatic ecosystems. The first stream at the forest was fitted with measuring devices in 1956, and since then water samples, stream flows, soil profiles, and other scientific measurements have been taken by Forest Service personnel on a weekly basis, in all kinds of weather conditions. Neatly stacked rows of thousands of water samples are testament to the on-the-ground efforts of countless researchers and technicians over nearly half a century. These samples and other data represent a treasure trove for scientists seeking to understand the long-term changes that occur to forests.

The Hubbard Brook Ecoystem Study began in the early 1960's when Gene Likens, Herb Bormann, and Noye Johnson from Dartmouth College, and Bob Pierce from the U.S. Forest Service, started doing long-term ecological research at the Hubbard Brook Experimental Forest. Over the years, the study has involved researchers from dozens of universities, government agencies, and other institutions representing a wide range of disciplines, from botany to geochemistry, limnology to avian biology. The Hubbard Brook Ecosystem Study pioneered the "small watershed approach" to understanding ecosystems, which was once considered a novel, even revolutionary, idea. Today more than 2,000 scientific papers have been published in peer-reviewed journals and in eight books using Hubbard Brook data. Perhaps no paper was more important than the 1968 study documenting the acidity of precipitation in North America. Later studies at Hubbard Brook linked the phenomenon called "acid rain" to increasing levels of air pollution.

The Hubbard Brook Research Foundation was established in 1993 as a combination "friends group" and "think tank" associated with the Hubbard Brook Ecosystem Study. In its role as friend, HBRF advocates for continued research funding; helps provide affordable housing and laboratory facilities to scientists; works to protect land and other natural resources in the Hubbard Brook region; performs tours and other educational activities; and facilitates communications among various stakeholders at Hubbard Brook. As a think tank, HBRF uses its Science Links program to bridge the gap between science and public policy, working with Hubbard Brook scientists to communicate the results of their research to government, the media, environmental and other public-interest groups, and the general public.

Mirror Lake lies at the base of the Hubbard Brook Valley. The lake has been the focus of HBES limnology studies since the mid-1960s. The 30 years of ongoing monitoring at Mirror Lake has produced a large base of data that has been used to write dozens of scientific papers and an entire limnology textbook (Likens, Gene E., Ed., An Ecosystem Approach to Aquatic Ecology: Mirror Lake and its Environment, Springer-Verlag, New York, NY 1985). Extensive hydrologic instrumentation of the lake and its watershed was initiated in 1979 to focus research on the interaction of the lake with atmospheric water,

surface water, and ground water. As part of these studies, stream-gauging flumes were constructed on the three streams that flow into the lake and on the stream that flows from the lake. In addition, numerous water-table wells were constructed within the lake's watershed, and climate instruments were place on a raft and at a land station. Each instrumentation site is carefully monitored and samples taken and analyzed at least once each week. Research at the site has focused on variety of scientific disciplines: biology (including the study of phytoplankton, zooplankton, microorganisms, fish, salamanders, vertebrates), hydrology, biogeochemistry, geology, cultural history, and paleoecology.

Despite its importance in the overall Hubbard Brook Ecosystem Study, much of Mirror Lake remains in private ownership and is subject to market pressures as an attractive location for vacation homes. The property purchased by HBRF and the Trust for Public Land presented an opportunity to protect 18.73 acres on the lake. This tract offers 1,250 feet of lake frontage, 10 structures, and approximately 12 wooded acres that border the Hubbard Brook Experimental Forest. This land is within the proclamation boundary of the White Mountain National Forest (WMNF) and is within the Hubbard Brook watershed. Protection of this land augments a 1998 acquisition of land along the eastern shore of the lake, protected in partnership with the Trust for Public Land and the U.S. Forest Service.

The Mirror Lake property offers the additional advantage of providing badly needed housing for scientists near the Hubbard Brook Experimental Forest. The current residential and laboratory facilities at the forest center around nearby Pleasant View Farm, which is owned and operated by HBRF, and also the Robert S. Pierce Laboratory, operated by the U.S. Forest Service. Both facilities have provided housing, laboratories, and workspace for generations of scientists and technicians, and have contributed to the sense of community and cohesion that is the hallmark of the HBES. Over time, the need for housing has outrun the available facilities and scientists are forced to seek housing on the local rental market. The housing offered at Mirror Lake will fulfill the housing needs of the HBES and help to maintain that sense of cooperation that has fed the success of the study over the past four decades.