Testimony of Dr. Russell Lea
Chief Executive Officer, National Ecological Observatory Network (NEON), Inc.
before the
UNITED STATES HOUSE OF REPRESENTATIVES
Committee on Appropriations
Subcommittee on Commerce, Justice, Science, and Related Agencies
on
The National Science Foundation (NSF)
And the National Ecological Observatory Network (NEON)
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Chairman Wolf, Ranking Member Fattah, and Members of the Subcommittee, thank you for the opportunity to testify. My name is Dr. Russell Lea and I am the Chief Executive Officer of NEON, Inc. I appreciate the opportunity to appear before the Subcommittee to ask for your support for the NEON project that is expected to be included in NSF's FY14 Budget Request to Congress. NEON is one of the ongoing projects in NSF's Major Research Equipment and Facilities Construction (MREFC) account. The estimated FY2014 budget request, based on NEON's out-year expenditure profile in NSF's FY2013 Budget Request to Congress, is $98.2M.

On behalf of the scientific community who will be using NEON, I would like to express our appreciation for the strong support that Congress has consistently provided NSF, and in particular the NEON project and core funding for NSF's Biological Sciences Directorate. Sustained investments in science and technology are critical for a knowledge-intensive economy and for maintaining US scientific leadership. To this end, the MREFC account was designed to fund unique, transformational research infrastructure at the frontiers of science and engineering.

NEON is a world-class distributed environmental Observatory that is a prime example of such infrastructure. NEON sites are located throughout the United States. Sites in the vicinity of Washington DC include the Blandy Experimental Farm located in Virginia's Congressional District 10, the nearby Smithsonian Conservation Biology Institute, and the Smithsonian Environmental Research Center in Maryland.

Planning and Building the Observatory. NEON has undergone a series of rigorous reviews mandated by NSF's Major Facilities Office. NSF has clearly promulgated its "no-cost overruns" policy with regards to the construction of facilities like NEON. This is instituted through a rigorous planning process that details, for each year of the anticipated project duration, the project's budget and schedule. These schedules and budgets with estimated out-year costs are thoroughly reviewed through a series of NSF managed panels. Authorization to commence construction by the National Science Board, the NSF Director, OMB, and Congress is contingent on the successful outcome of these reviews.

NEON is currently approaching the middle of its approved construction profile that commenced in FY2011. The estimated FY2014 budget request, based on the expenditure profile in NSF's FY2013 Budget Request to Congress, is $98.2M. Anticipated expenditures are $91M and $80.66M in subsequent out-years. The aforementioned amounts could change once the Administration releases its FY2014 Budget Request

Impacts of Profile Perturbations. Perturbations to that profile will impact contracts and agreements to industry for work in progress. This will impact a variety of activities, ranging from the hiring of local skilled labor for the installation of civil infrastructure like electrical power and concrete foundations for NEON's bio-meteorological towers, to the procurement of automated sensors from high-tech industries. Delays in these activities, coupled with the cost of maintaining skilled Observatory staff, will ultimately increase the cost of this project. The construction process is subject to NSF's "no cost-overruns" policy. If funding falls below what is needed to build this observatory, it will result in a facility that will fall short of its scientific promise.

Guided by environmental grand challenges proposed by the National Research Council (NRC), NEON scientists and engineers partnered with the scientific community to define the capabilities required of the Observatory to enable transformational science. These capabilities were reviewed and approved by NSF panels, and consequently a construction profile crafted to deliver those capabilities. NEON must be built to those specifications if the scientific community is to successfully address the NRC grand challenges. Only then can we begin to understand the impacts of large-scale environmental changes on our ability to sustainably meet society's food, fiber, energy, and water needs. Only then will the United States have the unique distinction of possessing the only large-scale scientific infrastructure capable of listening to the pulse of an entire continent's ecosystem.

Conclusion. NEON is not only an essential investment for continued US scientific leadership, but it also helps fuel the Nation's long-term competitiveness and innovation agenda. I recognize the severe budget constraints facing Congress. Funding such projects as closely as technically feasible to the levels proposed in their funding profiles will ensure the efficient use of taxpayer dollars, while delivering essential capabilities to the scientific community to enable transformational science.

Thank you for the opportunity to appear before you today. I would be happy to answer any questions you might have.