

The National Ecological Observatory Network (NEON) (<https://www.neonscience.org/>) is a continental-scale research platform for discovering and understanding the impacts of climate change, land-use change, and invasive species on ecology. NEON is gathering long-term data on ecological responses of the biosphere to changes in land use and climate, and on feedbacks with the geosphere, hydrosphere, and atmosphere. NEON is a national observatory, not a collection of regional observatories. It will consist of distributed sensor networks and experiments, linked by advanced cyberinfrastructure to record and archive ecological data for at least 30 years. Using standardized protocols and an open data policy, NEON gathers essential data for developing the scientific understanding and theory required to manage the nation's ecological challenges. In February 2007, NEON, Inc. announced the initial group of 20 candidate core sites across the United States that is included in the NEON Project Execution Plan. The Appalachians - Cumberland Plateau Domain core site is the Walker Branch Watershed on the Oak Ridge Reservation (<https://www.neonscience.org/field-sites/walk>).

NEON is a sentinel system for environmental change, a national laboratory focused on understanding complex ecological processes at the continental scale. It is the first initiative in the biological sciences that is eligible for funding through the National Science Foundation's Major Research Equipment and Facilities Construction fund. It is designed to serve as the US terrestrial contribution to the proposed Global Earth Observation System of Systems.