The Honorable Ken Calvert
Chairman Appropriations Subcommittee on
Interior, Environment and Related Agencies
US House of Representatives
Washington, DC 20515

The Honorable Betty McCollum
Ranking Member Appropriations Subcommittee
on Interior, Environment and Related Agencies
US House of Representatives
Washington, DC 20515

Dear Chairman Calvert and Ranking Member McCollum:

Improving the future health and sustainability of the nation's forests and grasslands requires a strong investment in USDA Forest Service Research and Development (R&D), with benefits to forests providing multiple benefits for people, communities as well as for wildlife, fish and our waterways. The undersigned organizations and professional societies urge Congress to **increase funding for *all* Forest Service R&D to a minimum of $303 million in FY 2018, including all necessary increases for the Forest Inventory and Analysis program and at least $220 million for the remaining Forest and Rangeland Research program areas.**

Building on a trove of over 100 years of research, Forest Service R&D programs inform policy and land-management decisions that improve the health and use of the nation's forests and grasslands and adjoining aquatic systems. Funding for these important activities is critical to sustaining the nation's natural resources. Showing value in this investment requires R&D leaders and scientists be attuned and responsive in providing relevant information and support in a timely manner with an ability to effectively deliver assistance to all users.

The work conducted at experimental forests and ranges, regional research stations, and the Forest Products Lab, incubates progress on new products and services; tracks disturbance responses; fosters greater forest resilience; quantifies contributions to air and water quality; and drives innovation in renewable energy and product development. Notable recent Forest Service R&D contributions include:

Developing Innovative Solutions to Managing Invasive Species
Forest Service R&D also develops innovative solutions to manage invasive pathogens and species that can decimate native plant and animal populations. This includes but is not limited to developing a cost-effective way to quickly identify the presence or absence of invasive species in an aquatic environment through eDNA technology; developing trees with a natural resistance to emerald ash borers; and successfully developing the first treatment for white-nose syndrome (WNS)—a lethal fungal disease that has reduced bat populations by upwards of 80% in certain parts of the country. Through using a native soil bacterium to inhibit growth of the fungus that causes WNS, Forest Service researchers have been able to return previously sick bats to their native habitat. As voracious consumers of insect pests, bats reduce the pesticide bill of the U.S. agricultural industry by over $23 billion annually.

Helping to Identify Pragmatic Solutions for Species at Risk
Through long-term monitoring and collaborative research efforts with States and other partners, Forest Service R&D generates an understanding of wildlife-habitat relationships for multiple species and communities that enables informed land management decisions that benefit wildlife and people. This includes informing conservation efforts that have helped to avoid Endangered Species Act listings for several forest and rangeland wildlife species, like the greater sage-grouse. In 2015, the U.S. Fish and Wildlife Service decided not to list the greater sage-grouse after an unprecedented conservation partnership—supported by Forest Service R&D—significantly reduced threats to the greater-sage grouse and its habitat. Through these actions, the partnership not only produced a healthy sage brush ecosystem that supports over 350 additional species and an estimated $1billion in outdoor recreation but also effectively avoided the economic and regulatory uncertainty associated with an endangered species listing across an estimated 173 million acres. Based on that precedent, the greater-sage grouse experience will affect how we collectively respond to the next proposed listing.

Improving Smoke and Fire Management Capabilities
The Prescribed Fire Combustion and Atmospheric Dynamics Research Experiment is a landmark study improving predictions of fire spread and smoke behavior. This behavior prediction tool with the Blue Sky Smoke Management Model allows fire managers to better understand where flames and smoke from wildland fires will go to alert affected communities sooner and reduce human health effects. These tools also support decision making for prescribed fires, allowing managers to model a variety of different scenarios to evaluate potential impacts on air quality and soil under a variety of conditions.

Calculating the Value of Urban Forests and Trees
The publication of Community Tree Guides helps managers calculate the value of new tree plantings in terms of property value increases, future energy savings, air pollutant uptake, storm water runoff reduction. Credible information quantifying the benefits of managed urban forests helps cities protect and restore environmental quality and enhance economic opportunity.

Expanding and Protecting US Market Opportunities for Forest Resources
The Forest Products Laboratory drives innovation and expansion of commercial applications for forest products. Housing the leading producer of nanocellulose material in the US, the Lab explores breaking the woody fiber down to the nanoscale and what commercial uses make sense for this high strength, low weight material that can be collected from nearly any source. Building on unparalleled understanding of wood properties, R&D scientists are also able to use wood anatomy forensics and knowledge of wood DNA markers to combat deforestation and timber and wildlife trafficking by identifying origin of wood products, protecting US supply chains. This research along with the work at the Lab on woody biofuels, advanced composites and wood structures, and value added wood products promotes healthy forest ecosystems and economies by creating, enhancing and protecting markets for forest products.

Using Science to Guide Drought Management Response
Forest Service R&D has also been a leader on reviewing the impacts of drought on U.S. forests and rangelands in order to help better manage for drought resiliency and adaptation going forward. In 2016 Forest Service R&D released an assessment report that included management options to help federal, state, and private organizations implement strategies to sustain healthy, resilient ecosystems that continue to produce vital goods and services, such as pulp, timber, and recreational fishing opportunities.

Quantifying the Role of Forests in Providing Clean Air and Water
This research directly linking trees to clean air and water underscores the economic value and benefits trees and forests provide to all residents and communities. Recent R&D work shows that forests, which make up 26% of US land area, are the source of 46% of the US water supply—generating far better returns than other land uses. Forest Service R&D's understanding these dynamics help to produce sustained, low cost clean water supplies. Studies also link contributions of plants and trees to improved air quality and human health benefits. The community benefit plants provide while removing pollutants and improving human health is valued at nearly $7 billion every year and is significantly more cost effective than alternatives.

Advancing forest science is integral to improving the health and welfare of US forests and citizens, increasing the competitiveness of US products in the global marketplace, and adapting to unforeseen future challenges. Continuing the trend of reductions in the R&D budget will result in significant gaps in the knowledge base and data sets necessary to address the many threats facing our nation's forests and could result in competitive losses in the global economy. ***Therefore, our organizations request a funding level of $303 million for USFS R&D with particular emphasis on research projects uniquely suited to R&D expertise and the furthering of agency and partner objectives.***

Sincerely,

Society of American Foresters

American Fisheries Society

Bat Conservation International

Ecological Society of America

National Association of Forest Service Retirees

National Association of University Forest Resource Programs

National Woodland Owners Association

The Longleaf Pine Alliance

The Wildlife Society

American Forests

Center for Invasive Species Prevention

National Association of Conservation Districts

National Association of State Foresters

National Wild Turkey Federation

Society for Range Management

The Nature Conservancy