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Before the Subcommittee on Energy and Mineral Resources

Committee on Natural Resources

US House of Representatives

Legislative Hearing on H.R. 6654, to direct the Secretary of the Interior to establish a National Climate Adaptation Science Center and Regional Climate Adaptation Science Centers to respond to the effects of extreme weather events and climate trends, and for other purposes.

February 17, 2022

Good afternoon, Chairman Lowenthal, Ranking Member Stauber, and members of the Subcommittee. My name is Scott Cameron, Senior Advisor at Cornea, Inc., a technology startup with a software and data science platform focused on natural disaster response. I am pleased today to testify before you on H.R. 6654.

Having worked in or around the Department of the Interior for most of my career, including a stint as acting Assistant Secretary for Policy, Management and Budget, and another as the OMB program examiner overseeing the US Geological Survey, I appreciate the constructive role that the US Geological Survey can play on climate adaptation science. In my testimony, I offer the Committee a number of suggestions for refining the bill to improve efficiency within the program and ensure accountability to the taxpayers and Congress.

The topic of climate is very broad, as is the mission of USGS. Like most federal agencies, the USGS has its silos of excellence: energy and minerals, mapping, water resources, ecosystems, and natural hazards. Climate adaptation requires us to think and work across these silos. The Regional Climate Adaptation Science Centers have the opportunity and responsibility to achieve that integration across the USGS disciplines.

To illustrate the need for this integration, I would like to point out some of the numerous significant connections involving climate, wildfire, ecosystems, and water resources.

For instance, the amount of snow that falls in California's Sierra Nevada mountains in the winter in turn will affect the water supply of California's farms and cities in the summer. We've also seen an expanding wildfire season in California and the rest of the West. Milder winters enable insect pests to survive the winter and kill more trees, which in turn makes Western forests more vulnerable to wildfire. Those wildfires put a lot of carbon dioxide into the air. For instance, according to MIT Technology Review, in 2020 California's fires alone emitted more greenhouse gases than all of the emission reductions across the entire West that were associated with the reduced economic activity from COVID-19.

Interrelationships among fire, climate, invasive species and water are not just a Western phenomenon. As an example, the invasive insect known as the emerald ash borer has killed hundreds of millions of ash trees nationwide, but especially in the cities and forests of Minnesota, Wisconsin, Michigan and elsewhere in the Midwest. If the Great Lakes region has an unusually warm and dry summer, then lightning strikes or careless humans may cause those dead standing trees to catch fire, fueling wildfires threatening lives and property, and incidentally, emitting tons of carbon dioxide into the air. Similarly, invasive plants like cheatgrass in the Western states have long been a cause of more severe and frequent rangeland fires, threatening communities in the wildland urban interface, destroying the habitat of species that may already be, or may become protected under the Endangered Species Act, and sending yet more carbon dioxide into the atmosphere.

In the eastern part of the country, sea level rise makes communities in coastal areas bordering Chesapeake Bay and the Gulf of Mexico more vulnerable to flooding, and also disrupts the ecosystem restoration efforts in the ecologically valuable coastal salt marshes that have received so much federal agency funding and attention in recent decades.

With these complex relationships in mind, I respectfully suggest that Congress take the opportunity in HR 6654 to give USGS more specific direction on the nature of the research that might be undertaken by the Regional Climate Adaptation Science Centers, and thereby to ensure that important connections are created across USGS's bureaucratic silos.

One of the consistent challenges facing many federal research programs is ensuring that the work they undertake has value in meeting the operational needs of programs delivering services to the public. Left to their own devices, many research scientists will naturally explore what they consider to be interesting scientific research topics, but those topics may not address the pressing information needs of land and water managers. Section 6 of the bill provides for advisory committees and working groups at the national and regional levels, but it provides no direction regarding how projects are chosen after feedback is received from these entities. Further, the bill does not require standardized metrics for how projects are prioritized to ensure land management needs are met. To strengthen the connection between the researchers and the resource managers, I recommend that paragraph 6(c)(2) be amended to include units of local government, and that paragraph (3) include language requiring the Federal Director of each Regional Center to annually publish information describing how the annual research program of the Center aligns with the expressed information needs of the federal land and water management agencies and state and local governments serving the region in question.

Section 7 of the bill authorizes generous funding levels for activities to be carried out under the Act. The Congress would naturally expect that this money would go into research activities. However, experience has shown that a significant fraction of appropriated research funds can end up being diverted to cover organizational overhead. For instance, historically, USGS research facilities have had overhead rates varying quite widely, from about 15% to more than 40%.

Universities can have even higher overhead rates. With this in mind, the Committee should ensure that the vast majority of the authorized funding actually produces useful research, rather than being diverted to cover overhead at the federal agency or host institution. I therefore recommend that the Committee consider amending Section 7 by putting some limitation on the percentage of the annual funding authorization that may be spent on overhead.

In closing, I wish to thank the full Committee Chairman and cosponsors of HR 6654 for introducing this important legislation, and I thank this subcommittee for allowing me to testify on the bill. I would be pleased to answer any questions.