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Before the U.S. Senate Committee on **ENERGY AND NATURAL RESOURCES**

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IMPROVE WATER SECURITY IN HAWAII

TO EXAMINE OPPORTUNITIES FOR FEDERAL AND NON-FEDERAL PARTNERSHIPS IN INTEGRATED WATER MANAGEMENT AND EFFORTS TO

In the late 1800s, vast areas of Hawaiian forests were cleared by grazing, unregulated logging, and fires. As forests disappeared, our water supply was threatened. Streams and springs began to dry up across the state. In 1903, Hawaii established the first forestry agency in the nation spurred by the recognition of the important connection between forests and water security. That initial agency has evolved into today's Hawaii Division of Forestry and Wildlife.

In the early 1900s, our agency undertook an ambitious effort to fence a million acres of forested watershed, remove introduced grazing animals, control wildfires, build trails for forest management, and plant trees to restore deforested areas. A century later this work is no less relevant, and the State of Hawaii continues to prioritize watershed protection through the Governor's Sustainable Hawaii Initiative and 30x30 watershed goal, an ambitious program to protect, restore and manage watershed forests in Hawaii.

With the recognition that 66% of Hawaii's forests are in private hands, we worked cooperatively with our federal and private partners to establish the Watershed Partnership Program in 1991, an innovative voluntary partnership of forest landowners, organizations and agencies dedicated to the protection of forested watersheds. This groundbreaking model has been very successful in Hawaii, allowing landowners to work across ownership boundaries to cooperatively manage watersheds.

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A number of Federal agencies assist with watershed protection, research, and management actions in Hawaii. They assist the state with the landscape scale watershed management, protection and management of ecosystems and native plant and animal species, and assistance with forest management on state and private forest lands.

The U.S. Geological Survey's Pacific Islands Water Science Center has been conducting important research that quantifies how our forests protect our water supply, and how forest degradation can dramatically decrease water availability. Research by the Biological Resources Division informs our management of wildlife and plant populations throughout the state.

The U.S. Department of Agriculture (USDA), through its U.S. Forest Service, Natural Resources Conservation Service (NRCS), and Farm Service Agency, provides technical and annual funding support for Hawaii watershed projects. In particular, the USDA competitive grant programs offered through the Landscape Scale Restoration, Forest Legacy, Joint Chiefs Restoration, and Regional Conservation Partnerships programs have directly contributed to forest management that enhances water quality and quantity in Hawaii. These competitive programs, in addition to U.S Forest Service and NRCS base programs, have expanded important work in upland forests that are critical for water security.

However, with the growing threats to Hawaii's and the nation's forests from invasive plants, insects, diseases, and wildfire there is a need to increase the scale of proactive management. Wildfire suppression, in particular, is consuming the Forest Service funding for preventive management that would increase forest resilience and health, sustainability, clean water, and support climate change adaptation strategies - all of which also support forest management in Hawaii. There is a clear need to have separate fire and emergency response funding for wildfire suppression; restore the Forest Service restoration and management programs; and promote proactive management of the nation's forests through measures such as the proposed Wildfire Budgeting, Response, and Forest Management Act. Further, management of these diverse forest threats require up-to-date research as provided through the U.S. Forest Service Institute of Pacific Islands Forestry that provides expertise in critical natural resource management needs.

Our other Federal partners that provide support for watershed protection are the U.S. Department of Interior National Park Service and U.S. Fish and Wildlife Service and National Wildlife Refuges, which protect some of Hawaii's most intact native forests. The Department of Defense also partners to protect populations of listed species, and the U.S. Fish and Wildlife Services' endangered species programs are central to restoring populations of birds, plants, and invertebrates. These listed species are part of an interdependent network essential to overall forest ecosystem health.

Hawaii is faced with other urgent forest health concerns, the most critical of which at present is the fungal disease commonly known as Rapid 'Ōhi'a Death. Leadership and

assistance by the Forest Service, Agriculture Research Service, the US Geological Survey, and the National Park Service has helped to provide research and guidance on this disease that is killing our most abundant native tree which is the keystone species in the Hawaiian native forest. These agencies have provided funding, research expertise, logistical support, and coordination toward understanding, mapping, and controlling this threatening disease.

While Hawaii is dealing with this urgent local problem, we are also working on providing a solution to global issues, specifically by sequestering carbon through reforestation. Federal agencies have provided research and expertise to support the State's development of new mechanisms of watershed protection through programs that promise to provide financial incentives through private sector partnerships, such as payments or credits for ecosystem services for improved water quality benefits, and carbon sequestration.

Hawaii has been an early leader in watershed protection, and continues to engage on a national scale. Federal agencies add to the efforts of our local agencies and organizations, and are essential for the success of our interconnected watershed partnerships. Thank you for holding this hearing on this important issue. Hawaii has a long history of forest protection and partnerships, and we hope that Federal support and collaboration will continue to expand as both the threats and the importance of these forests are magnified in the future.