



HOUSE OF REPRESENTATIVES

STATE OF HAWAII
STATE CAPITOL
HONOLULU, HAWAII 96813

TESTIMONY OF RYAN YAMANE
CHAIR, HOUSE COMMITTEE ON WATER AND LAND
HAWAII STATE LEGISLATURE

BEFORE THE UNITED STATES SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES

OCTOBER 18, 2016

10:00 A.M.

HAWAII STATE CAPITOL
CONFERENCE ROOM 325
415 SOUTH BERETANIA STREET
HONOLULU, HAWAII

RELATING TO FEDERAL AND NON-FEDERAL PARTNERSHIPS IN INTEGRATED
WATER MANAGEMENT AND EFFORTS TO IMPROVE WATER SECURITY IN HAWAII

Senator Hirono:

I truly appreciate your efforts to bring this issue to the forefront and to allow Hawaii to have a voice in these proceedings. The time and effort that you and this committee have put into this issue, indicated to us that you share our concerns to protect our water, and the need to improve Hawaii's water security for our people and our environment.

The Hawaii State Legislature finds that the future of our State's water security is vital for Hawaii's economy, natural resources, and to the health and lifestyle of Hawaii's people. However, it must be noted that water is not only required to sustain life, but can also be a threat to life as we have witnessed from the extreme flooding of West Virginia, Texas, Louisiana, and North Carolina, the contamination of water in Flint, Michigan, as well as the severe drought in California. A recent United Nations report on water and disaster risk recounts that 90 percent of U.S. natural disasters over the past decade have been water related, including floods, droughts, and storm surges. Water-related disasters arise from too much water, too little water, or polluted water. The frequency of these water-related disasters is expected to increase with a changing climate, with the U.N. predicting that these disasters also will become more severe in the near future.

As the Earth's temperature continues to rise, we can expect a significant impact on our fresh water supplies with the potential for devastating effects on these resources. If we continue to increase our water consumption, to allow sewage spills to pollute our streams and ocean and do not reclaim our water, we will face a serious water crisis in Hawaii's future. The effects on our ahupua'a and natural systems will be widespread: from accelerated flooding, heavier rain and flash floods, to extreme droughts and saltwater intrusion in our aquifers. We in Hawaii have already found that our statewide rainfall has decreased by 19 percent between 1978 and 2007. Similarly, our annual amount of "tradewind days" have decreased from 291 days in 1973, to 210 days in 2009, also resulting in less rain and recharge for our islands' aquifers. Hawaii has already experienced prolonged drought which

severely impacted our State's drinking supply, natural resources, and agricultural production in 2013, when 75 percent of Hawaii's land was found to be "abnormally dry."

This year, my colleagues and I took direct action to improve our water protection policies through a comprehensive package of 14 water laws, which include improved water management policies, establishing a statewide "water audit" program, encouraging hydroelectric opportunities, creating public private partnerships and investment incentives in water security, improving local water infrastructure, and eliminating the discharge of untreated water into our streams and oceans.

To secure our water resources, the Hawaii State Legislature passed legislation to encourage the State's Commission on Water Resource Management to conduct "water audits" with the water utilities and the counties. This water audit will investigate water use, water loss, understand how our water is managed on a statewide scale, and allow the State to forecast our future water supply. The Hawaii State Legislature also initiated and financed a State Water Security Advisory Group as a two-year pilot program which will seek public-private partnerships to fund water security initiatives throughout the State. Similarly, the Hawaii State Legislature created a Green Bond investment program to provide water infrastructure loans to landowners and farmers who wish to improve their water infrastructure and irrigation systems. To encourage more use of reclaimed water, the Hawaii State Legislature amended the Hawaii State Water Plan to use clean, recycled water in all State and County facilities by 2045, excluding drinking water and potable water use. To reduce future pollution of Hawaii's oceans and streams, the Hawaii State Legislature also passed a law which will prohibit wastewater and raw sewage discharge within our ocean and state waters by 2026. To diversify energy opportunities to meet Hawaii's Clean Energy Goal, the Hawaii State Legislature expanded the use of water as a future clean energy resource for hydroelectric power. Finally, the Hawaii State Legislature invested over \$16 Million to improve and upgrade dams, reservoirs, and irrigation systems throughout the State of Hawaii.

This diverse legislative package of 14 water laws was a first of its kind in Hawaii. This comprehensive legislative water package is our first step toward ensuring Hawaii's water security and water safety through water reuse, conservation, and infrastructure advancements. However, more needs to be done to ensure that Hawaii's water is safe, clean, and secure for our future. I welcome the Federal Government to invest in water reclamation, water reuse, water metering, stormwater runoff capture and groundwater recharge projects for the State of Hawaii. Federal water conservation grant programs, like the WaterSMART funding initiative can assist the State of Hawaii to improve water conservation and secure our statewide water supply. I am hopeful that this Senate Field Hearing will generate increased involvement and funding opportunities from federal agencies including: the Bureau of Reclamation, the Army Corps of Engineers, the Environmental Protection Agency, the U.S. Department of Agriculture, the National Fish and Wildlife Service, and the Federal Emergency Management Agency.

We are currently witnessing the severity of water risks and water disasters affecting the country and we must acknowledge that Hawaii's future will also be vulnerable to climate change. We must act to invest in federal, state, and county partnerships in integrated water management to improve Hawaii's future water security.

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