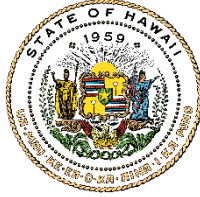


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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

Testimony of
DAWN N. S. CHANG
Chairperson

Before the House Committee on
WATER AND LAND

Tuesday, January 30, 2024
9:00 AM

State Capitol, Conference Room 430 & Videoconference

In consideration of
HOUSE BILL 1900
RELATING TO HYDROLOGIC DATA COLLECTION

House Bill 1900 proposes to appropriate \$475,000 in general funds for Fiscal Year (FY) 2025 to improve the State's understanding of the complex hydrologic systems in Hawai'i by providing funding for stream gages, operating and maintaining the Hawai'i *Mesonet*, and monitoring wells. **The Department of Land and Natural Resources supports this bill provided that its passage does not replace or adversely impact priorities indicated in the Executive FY 2025 Supplemental Budget request.**

The Commission on Water Resource Management (Commission) acknowledges the need for increased and improved hydrologic data collection across the state of Hawai'i. Recent studies have shown that annual rainfall has declined in Hawai'i since the late 1980s and that air temperatures have increased since the 1950s. These trends may impact the availability of water as well as the demand for water in the future. The continuation and expansion of hydrologic monitoring is necessary to advance our monitoring of the impacts of climate change and to better manage the ground and surface waters across the islands. To refine our understanding of the data collection gaps and opportunities, the Commission collaborated with the U.S. Geological Survey (USGS) in a study to outline priorities for expanding Hawai'i's hydrologic data collection network (*Water-Resource Management Monitoring Needs, State of Hawai'i, USGS Scientific Investigations Report 2020-5115*). The results of the study demonstrate a great need for increasing groundwater, surface water, and rainfall data collection in Hawai'i.

The Commission is responsible for managing 376 perennial streams in Hawai'i. The number of stream gages across the state of Hawai'i has decreased from 197 gages in 1966 to around 92 continuous gages today. To monitor streamflow in critical areas, the Commission executes an annual joint funding agreement with the USGS to maintain and service stream gages statewide. The Commission's cost-share has proportionally increased from 50% in 2002 to 82% in 2024 due to federal budget restrictions. The Commission also operates its own stream gaging network to supplement the cooperative USGS network. Increasing funding for stream gaging is crucial to monitoring the impacts of climate change and managing surface water resources, including the establishment and monitoring of instream flow standards and protecting public trust purposes of water.

The University of Hawai'i Water Resources Research Center recently established the Hawai'i *Mesonet*, a statewide network of climate monitoring stations, with the goal of fielding approximately 100 stations. Besides the installation costs, a key aspect of keeping the *Mesonet* effectively functioning are the ongoing operation and maintenance costs, which include calibrating and replacing instruments, maintaining communication equipment, batteries, and solar panels, and the sometimes-hidden cost of data quality control and storage. Funding for the operation and maintenance of the *Mesonet* will ensure that this system continues to provide high quality data into the future.

The Commission is also responsible for managing 114 aquifer system areas in Hawai'i. Monitoring groundwater is imperative to understanding the condition and health of an aquifer. The data collected from monitor wells can be used to assess changes in the freshwater lens, seawater intrusion, over-pumping, impacts to climate change, and provides valuable data for numerical ground water modeling. The Commission currently operates 38 standard monitor wells and 13 deep monitor wells across the state and is thankful for the Legislature's approval of capital improvement funds for deep monitor well construction. An increase in operating funds for monitoring wells will allow staff to continue to maintain and enhance our data collection capabilities from existing and future monitor wells.

Mahalo for the opportunity to comment on this measure.