



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
House Committee on Finance
Wednesday, February 28, 2018 at 12:00 p.m.

By

Darren T. Lerner, Director
Water Resources Research Center

And

Michael Bruno
Interim Vice Chancellor for Academic Affairs
Vice Chancellor for Research
University of Hawai'i at Mānoa

HB 2612 HD1 – RELATING TO THE ENVIRONMENT

Chair Luke, Vice Chair Cullen, and members of the committee:

The University of Hawai'i Water Resources Research Center (WRRC) supports the intent of this initiative, provided that its passage does not replace or adversely impact priorities as indicated in the University's Board of Regents approved executive biennium budget. Following consultation with the Department of Health, we respectively suggest that an assessment of the magnitude and locales of wastewater impact on the nearshore environment will necessitate a multi-disciplinary effort. Further, no single indicator can conclusively determine whether contamination is due to sewage or some other natural process and, hence, multiple analytical methodologies will be required. In light of the complexity of the desired investigations, we suggest that this work would be more effectively undertaken by a collaborative effort between the University for Hawai'i and the Department of Health. The WRRC acknowledges that it has access to faculty with the relevant expertise to perform this study. Should the legislature agree and appropriate funds directed to the University of Hawai'i, the WRRC would engage their faculty and others from the university who have the required expertise to conduct the necessary investigations. The WRRC understands that the Department of Health would be a full partner and participant on the study designs, execution of the research project(s), and the peer review process. The WRRC would also engage other experts as necessary to accomplish the intended goals and outcomes of this assessment.

Studying sewage contamination of nearshore marine areas requires expertise in groundwater science and biogeochemistry, due to the mode of solute transport to the coast, and in marine biology and coastal processes, as endpoints of the impacted environments. The University of Hawai'i, and its Water Resources Research Center is strategically positioned to address those research needs. For example, WRRC affiliate faculty are currently completing two projects that provide a foundation for the research requested in HB 2612 HD1. The first project quantitatively modeled the impacts from coastal discharge of contaminated groundwater on two contrasting study areas by

combining groundwater modeling with the physical and biological characteristics of the nearshore environment. The second project evaluates a range of alternatives to cost optimize reduction in coastal contamination. As these projects show, the University of Hawai'i WRRC has access to research faculty and staff with the requisite methodologies, technical expertise, and capacity to perform the research needed to conclusively identify where sewage contamination has the most adverse impacts and to provide cost efficient solutions for reducing or removing the contamination threat.

Thank you for the opportunity to testify on this measure.