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GOVERNOR OF HAWAII



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**Testimony of  
WILLIAM J. AILA, JR.  
Chairperson**

**Before the Senate Committee on  
ENERGY AND ENVIRONMENT  
AND**

**WATER AND LAND  
Thursday February 6, 2014  
2:45 pm**

**State Capitol, Conference Room 225**

**In consideration of  
SENATE BILL 2344  
RELATING TO CLIMATE CHANGE  
"THE HAWAII CLIMATE CHANGE ADAPTATION INITIATIVE ACT"**

Senate Bill (SB) 2344 proposes to "address the effects of climate change through 2050...by establishing a statewide climate adaptation plan that will:

- (1) Assess the major areas of expected climate impacts in Hawaii;
- (2) Create a model framework for assisting communities in developing recommendations for climate adaptation based on site specific studies;
- (3) Develop short and long term plans and actionable policy recommendations to ensure the state and counties will address the impacts of climate change;
- (4) Establish an interagency climate council to facilitate ongoing coordination among state departments, counties, federal agencies, and partners; and
- (5) Update expected impacts and adaptation policies every five years, as necessary."

The State Sustainability Coordinator would develop a climate change impact report (Report) by December 31, 2015. SB 2344 recommends that the Report include the following elements:

- (1) Identification of the major areas of climate change impact affecting the state and counties through 2050;
- (2) Impact expectations based on the latest scientific research for each issue area through 2050;
- (3) Identification of economic ramifications of major climate impacts;

- (4) Analysis of climate change adaptation planning in other jurisdictions relevant to Hawaii; and
- (5) A model framework for assisting communities in developing recommendations for climate adaptation based on site specific studies;

SB 2344 initially establishes the ICC in the Office of the Governor, but transitions it to the Department of Land and Natural Resources (Department) on January 1, 2018. The ICC would be headed by the Governor's Sustainability Coordinator. The proposed bill also tasks the Office of Planning to develop strategic climate adaptation plans and provide planning and policy guidance and assistance to the ICC and state and county agencies regarding climate change. It appropriates \$110,000 for fiscal year 2014-2015 to provide the Office of Planning with staffing, \$400,000 to enable the Sustainability Coordinator to do a climate change study, and \$50,000 for the ICC.

The Department strongly supports SB 2344. This legislation endeavors to implement climate change adaptation plans across the State. However, we recommend an amended bill based on the following.

As you know, it is the mission of the Department to manage public lands, water resources, ocean resources, navigable streams, and coastal areas. The Department is very much at the forefront of climate adaptation through efforts such as our "Rain Follows the Forest" initiative to directly address the effects of climate change (e.g. precipitation, species diversity) on fresh water resources, and species diversity. Thus, we thank the legislature for recognizing the Department as a major climate change stakeholder, and we accept leadership on this critical initiative.

If the Department is going to be a leader in this critical campaign, we want to help define the scope of the overall climate change adaptation initiative, in order to ensure the optimal utilization of our limited resources, expertise, and ongoing efforts.

Towards this end, the Department believes we should initially focus on the effects of sea level rise (SLR). By focusing on SLR, we can effectively address the best understood and most urgent climate-related vulnerabilities in the state while building a solid framework for research, planning and interagency coordination to address other major areas of climate change impacts through a long-term process.

In 2012, the State of Hawaii adopted Act 286, which established climate change adaptation priority guidelines. The Governor's plan, A New Day in Hawaii also recognizes the importance of planning for adapting to climate change and SLR. The 2013 Ocean Resources Management Plan (ORMP) also identifies climate change and SLR as major priority areas. The Department feels that these efforts have established a strong foundation and impetus for developing an overarching climate change adaptation plan, but we also feel that it is not too soon to begin focusing our limited resources on actionable projects for adaptation to climate-related hazards within appropriate authorities and in areas that are most relevant and potentially devastating for Hawaii, such as SLR.

Hawaii sea level has risen 6 inches over the past century. According to the Intergovernmental Panel on Climate Change, Assessment Report 5, at the current rate of greenhouse gas production,

global mean sea level is likely to rise a mean of 1 foot by mid-century and over 2 feet by the end of the century. The National Science Foundation, the U.S. Army Corps of Engineers, and the National Oceanic and Atmospheric Administration predict the possibility of even higher levels by the end of the century.

The impacts of accelerated SLR include an increase in an already dominant trend of coastal erosion, increased severity and frequency of flooding events by heavy rains and large waves, and increased vulnerability to tsunami and hurricane damage. The potential consequences of SLR for Hawaii are severe compared to many other coastal states, as the majority of our population base and public infrastructure exist on low-lying coastal plains which are highly susceptible to coastal hazards. The State should put particular effort in SLR adaption, as there is consensus within the scientific community that rates of SLR will continue to accelerate in the coming decades.

Scientific research is beginning to improve our understanding and ability to predict risks and vulnerabilities associated with SLR. Historical shoreline change maps have been completed identifying beaches suffering the greatest historical erosion and also most prone to future erosion. Detailed maps of SLR flood zones have already been completed for Hawaii by University of Hawaii researchers and NOAA. The Department is currently working with the University of Hawaii to develop maps of predicted coastal erosion hazard areas incorporating a range of SLR scenarios to aid in identifying natural resources, coastal lands, property and infrastructure that are vulnerable to coastal erosion and flooding over the next century. However, state and county agencies still lack the localized planning tools they need to make regulatory decisions related to SLR.

We recommend that the proposed legislation be amended to initially focus on SLR in the following ways:

1. Establish an Interagency Sea Level Rise Vulnerability and Adaptation Committee (SLRVAC) to initially develop a SLR Vulnerability and Adaption Report for Hawaii through the year 2100. The SLRVAC may consist of the same members proposed in SB2344;
2. Designate the Department of Land and Natural Resources (Department) and the Office of Planning (OP) as the lead agencies, with administration of the SLRVAC located within the Chairperson's office of DLNR;
3. The SLRVAC will do the following:
  - (a) Coordinate with the scientific and planning members to identify information/budget needs;
  - (b) Facilitate mapping of sea level rise and coastal erosion hazard areas for a range of climate scenarios;
  - (c) Identify public and private facilities and natural resources vulnerable to erosion and flooding with increasing sea level rise;
  - (d) Solicit public input on planning and policy options to develop adaptation plans for sea level rise –related impacts;

- (e) Develop recommendations for planning, management, and adaptation for hazards associated with increasing sea level rise; and
  - (f) Coordinate SLR planning among state, county, and federal agencies with broader climate change and natural hazard issues in Hawaii, and continue to work with the Office of Planning to coordinate climate change adaptation planning through Act 286 and the ORMP.
4. Appropriate \$500,000 for fiscal year 2014-2015 to enable DLNR/OP to develop a SLR adaptation plan for Hawaii; and
  5. Appropriate a sum of money as necessary to provide the Office of Planning and the Department each with one full-time equivalent (FTE) position to carry-out the mission of the Hawaii Climate Change Adaptation Initiation Act;
  5. Direct the Department to deliver an Interim SLR Vulnerability and Adaptation Report as the first component of the Hawaii Climate Adaptation Initiative Act by December 31, 2015 and a final report by December 31, 2018.

We re-iterate that by initially focusing on SLR, we can effectively address the best understood and most urgent climate-related vulnerabilities in the state while building a solid framework for research, planning and interagency coordination to address other major areas of climate change impacts through a long-term process.

Thank you for the opportunity to testify on this measure.