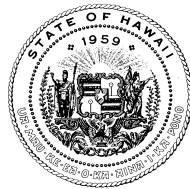


SB 81

EDT



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

February 25, 2011

TESTIMONY OF THE DEPARTMENT OF TRANSPORTATION

SENATE BILL NO. 81

COMMITTEE ON ECONOMIC DEVELOPMENT & TECHNOLOGY

The Department of Transportation supports this bill and offers this explanation to describe our views on continuing the Starlight Reserve advisory committee.

The Department, as it testified earlier before House and Senate Committee, on HB 1473 and SB 1493, has already taken steps, over the past years, to provide the higher or more stringent lighting fixtures in counties within the State. These efforts have to continue to be made and have been done over time under planned and programmed projects.

The Department's actions reflect the importance for having a Starlight Reserve strategy for the State. However, we have several points to make for your Committee's consideration.

The DOT, as a member of the advisory committee, feels that the advisory committee did not complete all of its work as only a few meetings were held. We believe this extension presents an opportunity to clarify and resolve the following matters, which were presented in our earlier testimonies, and gives time for the advisory committee to do the various inter-agency coordination needed to develop a night sky strategy.

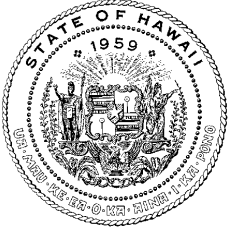
1. To implement new lighting projects and change outs through maintenance or repairs, the Department believes it should be done in a well coordinated and consistent program, within the State and among and between the counties that is properly planned and budgeted, especially because of the constrained resources and funding now facing the Department.

Such coordination may even include involved scientific and environmental parties that have knowledge and expertise of locations where special considerations for priority of lighting needs may be needed, such as for astronomy or natural habitats purposes. These considerations need to be balanced with the needs for maintaining or improving transportation safety in the three principal modes the DOT is responsible for – Airports, Highways and Harbors.

The views of the public may also be desired. Committee members may want to recall the experience the City and County of Honolulu had with the outcry from Hawaii Kai residents when the community found out that many more light poles were being installed along the streets because of new lighting fixtures.

2. The related lighting bills in the House and Senate have effective dates that impose immediate and sooner compliance on the entire and all of DOT's airport, highway and harbor facilities and do not provide a window to effectively plan, program and budget the change outs.
3. There is a need to have some form of uniformity in terminology and nomenclature in any state law or county ordinance that is consistent within the State and between the counties, as well as with engineering society and industry language and standards, to avoid misinterpretations and difference of opinions. For example, the County of Hawaii uses the term "shielded." The City & County of Honolulu prefers to use the term "cut-off".
4. The related lighting bills rely on the recommendations from the International Dark Sky Association (IDA) and the Illuminating Engineering Society of North America (IES) to support the night sky efforts. However, we are under the impression that the positions taken have not been vetted with the American Association of State Highway Transportation Officials (AASHTO) and federal airport, highway and harbor transportation agencies. If the IDA and IES positions and recommendations have not been discussed with these transportation entities, then we feel they should. Because our Department is obligated to follow and adhere to the guidelines and regulations promulgated by these transportation organizations, the DOT recommends that such discussions take place so that the DOT will not be caught in the middle. For example, our earlier testimony was reinforced in House testimony by the City & County of Honolulu which stated that more restrictive lighting could require changing the spacing of lighting poles that would be "impractical and prohibitively expensive."
5. There are more technical engineering and scientific standards and specifications that need to be shared, discussed and collaboratively worked on by the affected parties to make progress in applying the night sky lighting effort to the existing transportation systems. Such collaboration allows for new and emerging technical advances in lighting to be reviewed and discussed before being used in the field and permanently installed.

The Department of Transportation is willing to continue its participatory work with the Starlight Reserve Advisory Committee. The Department also is committed to provide proper lighting, but recommends that the process to address improvements to the night sky conditions and requirements be done with further coordination and discussions among all the affected parties and agencies



NEIL ABERCROMBIE
GOVERNOR

RICHARD C. LIM
INTERIM DIRECTOR

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

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Statement of
RICHARD C. LIM
Interim Director

Department of Business, Economic Development & Tourism
before the

SENATE COMMITTEE ON ECONOMIC DEVELOPMENT & TECHNOLOGY

Friday, February 25, 2011

1:15 p.m.

State Capitol, Conference Room 016

in consideration of

SB 81

RELATING TO STARLIGHT RESERVE.

Chair Fukunaga, Vice Chair Wakai, and members of the Committee. The department supports the intent of SB 81 to extend the sunset date of our department's Starlight Reserve Committee (SRC) to June 30, 2013.

The SRC was originally created through Act 161, Session Laws of Hawaii 2009, to assist our department with the development of a comprehensive strategy to help reduce nighttime sky pollution and preserve the quality of Hawaii's night sky and its associated cultural, scientific, natural, and landscape-related values.

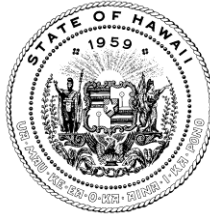
This committee was originally scheduled to convene in July of 2009; but in light of revenue shortfalls during the preceding fiscal year, the previous administration suspended implementation of new State boards, commissions and committees until the summer of the following year. As such, the SRC did not convene until July of 2010, and therefore has not had

adequate time to undertake the complex task of reviewing the current status of county, state and federal lighting policies and ordinances, or (based upon this analysis) to develop an effective and sustainable starlight reserve strategy for our State.

In addition, after discussing the multiple implications the proposed strategy may have for astronomy, tourism, public health, education, biological diversity, land management, and economic development statewide, as well as in consideration of the substantial breath of stakeholders concerned with this issue, the SRC believes a starlight reserve strategy could most effectively be implemented through a phased approach over the next two legislative sessions (2012 and 2013). As such, our department concurs that a two-year extension of the sunset date for the SRC is both desirable and appropriate.

Thank you for the opportunity to testify on this bill.

NEIL ABERCROMBIE
GOVERNOR OF HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

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HONOLULU, HAWAII 96809

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

**Before the Senate Committee on
ECONOMIC DEVELOPMENT AND TECHNOLOGY**

**Friday, February 25, 2011
1:15 P.M.
State Capitol, Conference Room 016**

**In consideration of
SENATE BILL 81
RELATING TO STARLIGHT RESERVE**

The Department of Land and Natural Resources supports Senate Bill 81 to extend the termination date of the Starlight Reserve Advisory Committee to June 30, 2013.

The use of artificial lighting serves the essential purpose of providing safety and security, and facilitates many of the routine activities of society. However, artificial lighting also affects biological and cultural resources by impacting wildlife populations and interfering with night sky viewing. The excessive use of artificial lights also contributes to wasted consumption of energy resources and impacts global climate change.

The purpose of the Starlight Reserve Advisory Committee (Committee) is to examine issues related to artificial lighting and recommend workable solutions to reduce the negative impacts of lighting on natural resources and related activities.

Although the Committee was established by Act 161 of the 2009 Legislature, it was not able to convene and begin its work until mid-2010, a delay of more than one year. Extension of the sunset date for the Committee will provide the additional time needed to complete the essential tasks to evaluate issues related to lighting and recommend solutions to the Legislature.

The Department supports this measure to advance the work of the Starlight Reserve Advisory Committee.

WILLIAM J. AILA, JR.
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

GUY H. KAULUKUKUI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

Testimony Related to

Senate Bill 81

RELATING TO STARLIGHT RESERVE

Presented before the

Senate Committee on Economic Development and Technology

The Twenty-Sixth Legislature

February 25, 2011

by

Richard J. Wainscoat

Chair

Starlight Reserve Committee

Chair Fukunaga and members of the Committee. My name is Richard Wainscoat and I am here today to submit this testimony in my capacity as Chair of the Hawaii Starlight Reserve Committee. I strongly support the extension of the termination date of the Starlight Reserve Committee by 2 years to June 30, 2013.

The Starlight Reserve Committee was established by the 2009 legislature. The previous administration delayed the formation of the committee by approximately one year due to budgetary concerns. The committee held its first meeting in July 2010, and has met on four occasions. The committee received extensive input from many stakeholders, and has already concluded that full shielding of bright outdoor light sources is an important first step in saving energy and protecting Hawaii's environment, including endangered species, the dark night sky, and astronomy. The committee has also recognized that education of both the public and of professionals regarding the benefits of intelligent lighting is essential, and is exploring ways to achieve this.

Act 161 asked the Starlight Reserve Committee to assist DBEDT to develop legislation to implement a statewide intelligent lighting and light pollution law that takes into consideration the following:

1. Develop rules regulating the requirements of outdoor lighting to guarantee the protection of night sky quality;
2. Incorporate measures to conserve energy and promote responsible outdoor night lighting;
3. Develop standards for intelligent lighting design in architecture, urban planning, engineering, and infrastructure development;

Testimony Related to Senate Bill 81
Senate Committee on Economic Development and Technology
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Page 2

4. Strengthen statewide commitment to preserving the night sky by adopting intelligent lighting in the public sector;
5. Promote labeling to recognize intelligent lighting fixtures and products;
6. Develop alliances with both public and private entities primarily responsible for outdoor night lighting;
7. Develop measures to avoid obtrusive light and improve the quality of life of local populations; and
8. Educate local residents about existing solutions, as well as the environmental, personal, and energy-savings benefits that intelligent lighting entails.

It is clear that the Starlight Reserve Committee still has much work to do. The committee discussed the amount of time that it felt was needed to accomplish these tasks, and believes that an extension by 2 years to June 30, 2013 is appropriate.



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Written Testimony Presented Before the
Senate Committee on Economic Development and Technology
Friday, February 25, 2011 at 1:15 p.m.

by

Virginia S. Hinshaw, Chancellor

and

Richard J. Wainscoat

Astronomer, University of Hawai'i at Mānoa

Chair, Light Pollution Working Group, International Astronomical Union

SB 81 – RELATING TO STARLIGHT RESERVE

Chair Fukunaga and members of the Committee. My name is Richard Wainscoat and I am here today to submit this testimony in my capacity as an astronomer at the University of Hawai'i, and as Chair of the Light Pollution Working Group of Commission 50 of the International Astronomical Union. I strongly support the extension of the termination date of the Starlight Reserve Committee by 2 years to June 30, 2013.

Mauna Kea on the island of Hawai'i, and Haleakalā on the island of Maui, are two of the best astronomy sites in the world. Dark night skies are essential for these observatories to continue to operate. However, increasing urban lighting is threatening the dark night skies over these observatories. Light pollution extends well beyond county boundaries; lights from O'ahu have a major and growing impact on Haleakalā. Statewide legislation is needed to protect the observatories. The economic impact of astronomy in Hawai'i is between \$150 and \$200 million per year.

The Starlight Reserve Committee was established by the 2009 legislature to address light pollution issues at a statewide level. Astronomers are not the only people affected by light pollution. Light pollution affects many endangered species across Hawai'i, including birds and turtles. It produces enormous energy waste. Poorly designed lighting compromises safety.

Act 161 asked the Starlight Reserve Committee to assist DBEDT to develop legislation to implement a statewide intelligent lighting and light pollution law that takes into consideration the following:

1. Develop rules regulating the requirements of outdoor lighting to guarantee the protection of night sky quality;
2. Incorporate measures to conserve energy and promote responsible outdoor night lighting;

3. Develop standards for intelligent lighting design in architecture, urban planning, engineering, and infrastructure development;
4. Strengthen statewide commitment to preserving the night sky by adopting intelligent lighting in the public sector;
5. Promote labeling to recognize intelligent lighting fixtures and products;
6. Develop alliances with both public and private entities primarily responsible for outdoor night lighting;
7. Develop measures to avoid obtrusive light and improve the quality of life of local populations; and
8. Educate local residents about existing solutions, as well as the environmental, personal, and energy-savings benefits that intelligent lighting entails.

It is clear that the Starlight Reserve Committee still has much work to do. The work that the committee is doing is very important for the future of astronomy in Hawai'i and at the University of Hawai'i.