

SB 140

RELATING TO DARK NIGHT SKIES PROTECTION

Establishes a Dark Night Skies Protection Advisory Committee to assist the University of Hawaii in developing a statewide dark night skies protection strategy.

DAVID Y. IGE
GOVERNOR OF
HAWAII



SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.
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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

**Testimony of
SUZANNE D. CASE
Chairperson**

**Before the Senate Committees on
HIGHER EDUCATION
and
AGRICULTURE AND ENVIRONMENT**

**Wednesday, February 15, 2017
1:45 PM
State Capitol, Conference Room 224**

**In consideration of
SENATE BILL 140
RELATING TO DARK NIGHT SKIES PROTECTION**

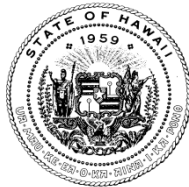
Senate Bill 140 proposes to establish a dark night skies protection advisory committee to assist the University of Hawaii in developing a statewide dark night skies protection strategy. **The Department of Land and Natural Resources (Department) supports this bill.**

Artificial lighting reduces the natural dark sky environment and directly impacts biological resources of the islands by altering wildlife behavior. Marine birds and sea turtles in Hawaii, some of which are endangered or threatened, are particularly sensitive to artificial light, attracting fledgling birds and hatchling turtles, which become disoriented and are frequently injured or killed, impacting their populations. There are many documented cases of night lighting in Hawaii attracting and killing coastal and pelagic birds and turtles every year. Newell's shearwaters and Dark-rumped petrels are particularly vulnerable, and research indicates that artificial night lighting is a major contributor to their respective population declines.

Additionally, dark night skies hold important cultural, astronomical, and tourism-related values, which are all negatively impacted as a result of artificial lighting. Excess artificial lighting also increases energy consumption, which contributes to wasted fossil fuel resources and exacerbates global climate change.

The Committee would, among other things, examine issues related to artificial lighting and recommend workable solutions to reduce the negative impacts of lighting on natural and cultural resources and other activities.

Thank you for the opportunity to comment on this measure.



Testimony by:
FORD N. FUCHIGAMI
DIRECTOR

Deputy Directors
JADE T. BUTAY
ROSS M. HIGASHI
EDWIN H. SNIFFEN
DARRELL T. YOUNG

IN REPLY REFER TO:

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

February 15, 2017
1:45 p.m.
State Capitol, Room 224

S.B. 140
RELATING TO DARK NIGHT SKIES PROTECTION.

Senate Committees on Agriculture and Environment &
Higher Education

The Department of Transportation (DOT) offers **comments** to this bill to establish a dark night skies protection advisory committee to assist the University of Hawaii in the development of a statewide dark night skies protection strategy to preserve dark night skies and reduce light pollution.

The DOT finds its membership on the committee useful and recommends the Occupational Safety and Health Administration be included in Section 2(c) to maintain and ensure transportation safety and security are carefully considered and that recommendations by the committee are effective, thoughtful and economically feasible while protecting dark skies. Their varied and extensive expertise will be valuable to the committee.

Thank you for the opportunity to provide testimony.



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

DAVID Y. IGE
GOVERNOR

LUIS P. SALAVERIA
DIRECTOR

MARY ALICE EVANS
DEPUTY DIRECTOR

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Statement of

LUIS P. SALAVERIA
Director

Department of Business, Economic Development & Tourism

before the

**HOUSE COMMITTEES ON AGRICULTURE AND ENVIRONMENT
AND
HIGHER EDUCATION**

Wednesday, February 15, 2017

1:45 p.m.

State Capitol, Conference Room 224

in consideration of

SB 140
RELATING TO DARK NIGHT SKIES PROTECTION.

Chairs Gabbard and Kahele, Vice Chairs Riviere and Kidani, and Members of the Committees. The Department of Business, Economic Development and Tourism **strongly supports** this Administration bill to establish a Dark Night Skies Protection Advisory Committee to assist the University of Hawaii in developing a statewide dark skies protection strategy.

Light pollution is a statewide issue that requires the cooperation of state and county agencies to develop and help implement a statewide strategy to reduce nighttime light pollution which, in turn, could help preserve Hawaii's dark skies for astronomy, protect endangered species, improve human health, and reduce nighttime energy consumption.

Although Act 287, SLH 2012 was successful in addressing appropriate temperature and shielding for State light fixtures, a more comprehensive strategy coordinating State laws with county, federal, military, and private sector lighting practices and regulations is needed to help preserve Hawaii's dark nighttime skies. We believe the proposed dark night skies protection advisory committee will play a strategic role in achieving this goal.

DBEDT strongly urges the House Committees on Agriculture and Environment and Higher Education to pass this measure.

Thank you for the opportunity to testify on this bill.



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committees on Higher Education and Agriculture & Environment
Wednesday, February 15, 2017 at 1:45 p.m.

By
Günther Hasinger, Director
And
Richard Wainscoat, Astronomer
Roy Gal, Assistant Astronomer/Outreach Coordinator/UH NGO
Institute for Astronomy
University of Hawai'i at Mānoa

SB 140 – RELATING TO DARK NIGHT SKIES PROTECTION

Chairs Kahele and Gabbard, Vice Chairs Kidani and Riviere and members of the committees:

The University of Hawai'i strongly supports the establishment of a dark skies advisory committee via SB 140.

Dark night skies are a tremendously important natural, cultural, scientific, educational, and economic resource for Hawai'i. But the dark night sky is under increased threat from urban lighting.

Maunakea observatory has one of the darkest skies in the world, thanks to over 25 years of careful lighting on the Island of Hawai'i. The sky at Haleakalā observatory is less dark, partly due to less stringent lighting rules on Maui, and also due to its proximity to Honolulu.

Dark skies are vitally important for Hawai'i's two major astronomical observatories. These are among the best astronomical sites on the planet. If the sky is allowed to become bright over these observatories, the telescopes will lose their ability to see faint objects. On Haleakalā, the University of Hawai'i is engaged in a NASA sponsored effort to search the sky for dangerous asteroids. The aim is to find any dangerous asteroid that may hit Earth early enough that it can be deflected before impact. This search relies heavily on the dark night sky, and it would be significantly weakened if the sky on Maui becomes any brighter.

The advisory committee described in this bill will bring together representatives from the state, the counties and the public, and will provide a valuable forum for exchanging information regarding nighttime lighting and for preservation of the dark night sky.

Light Emitting Diodes (LEDs) are rapidly being introduced to replace older forms of lighting. These offer some energy benefits, but their blue light is harmful to astronomy and to endangered species such as birds and turtles. The committee described in this bill will be able to provide excellent advice on limiting blue light, thereby preventing costly mistakes. Kaua'i is a prime example of a location where many expensive light replacements have had to be done because of the impact of unshielded lights on endangered birds. Recent developments related to LEDs include a recommendation by the American Medical Association to limit exposure to blue light at night, new findings that suggest road safety is improved by limiting blue light, and big improvements in energy efficiency in low correlated color temperature LEDs.



SB140
RELATING TO DARK NIGHT SKIES PROTECTION
Senate Committee on Higher Education
Senate Committee on Agriculture and Environment

February 15, 2017

1:45 p.m.

Room 224

The Office of Hawaiian Affairs (OHA) Committee on Beneficiary Advocacy and Empowerment will recommend that the Board of Trustees **SUPPORT WITH AMENDMENTS** SB140. This measure establishes a Dark Night Skies Protection Advisory Committee, to assist the University of Hawai‘i in developing a strategy to preserve the dark night skies essential to Native Hawaiian cultural perpetuation and the protection of native wildlife.

The night sky is an important instrument for Native Hawaiians. In Hawaiian culture, stars, planets and the moon predict weather conditions, foretell events in the form of hō‘ailona, or omens, and serve as calendar and land markers. The night sky instructs farmers what to plant, fishers what to catch, and open-ocean navigators where to go. As Native Hawaiians continue to reconnect and revive ancient traditions, the integrity of the night sky becomes more and more significant.

Light pollution, particularly in heavily developed areas, has limited the ability of Native Hawaiians to learn about the night sky and use it as their ancestors once did. Moreover, artificial light represents a major threat to some seabirds, which also hold both cultural and ecological significance. For example, bright lights at night can blind and disorient Newell's Shearwater fledglings, resulting in many of these young birds being hit by cars or preyed on by cats and dogs. Establishing a Dark Night Skies Protection Advisory Committee will help the University of Hawai‘i defend an important part of the cultural landscape for Native Hawaiians, as well as protect our culturally and ecologically significant seabird species.

To more appropriately reflect the administrative structure of the OHA, OHA respectfully requests amending the language on page 4, line 1, to read as follows:

- (8) The administrator of the office of Hawaiian affairs,
or the administrator’s designee;

Accordingly, OHA urges the Committees to **SUPPORT WITH AMENDMENTS** SB140. Mahalo nui loa for the opportunity to testify on this measure.

From: mailinglist@capitol.hawaii.gov
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Cc: jamesjtz@aol.com
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SB140

Submitted on: 2/9/2017

Testimony for HRE/AEN on Feb 15, 2017 13:45PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
James Gauer	Individual	Support	No

Comments:

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Submitted By	Organization	Testifier Position	Present at Hearing
Lynnette Santiago	Individual	Support	No

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Submitted By	Organization	Testifier Position	Present at Hearing
RuthMarie Quirk	Individual	Support	No

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Submitted By	Organization	Testifier Position	Present at Hearing
DONNIE BECKER	Individual	Support	No

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