

Water and Infrastructure Committee (2025-2027) on 2025-09-02 9:00 AM

Meeting Time: 09-02-25 09:00

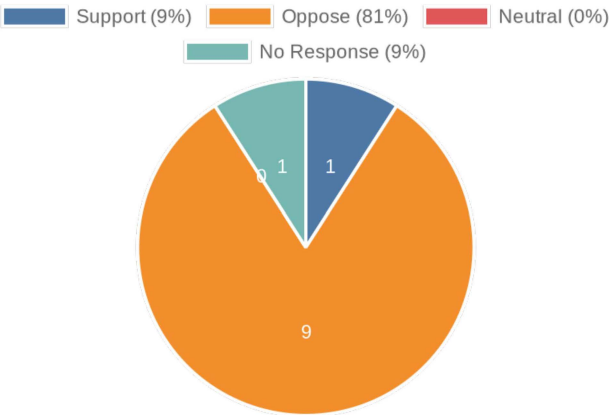
eComments Report

Meetings	Meeting Time	Agenda Items	Comments	Support	Oppose	Neutral
Water and Infrastructure Committee (2025-2027) on 2025-09-02 9:00 AM	09-02-25 09:00	2	11	1	9	0

Sentiments for All Meetings

The following graphs display sentiments for comments that have location data. Only locations of users who have commented will be shown.

Overall Sentiment



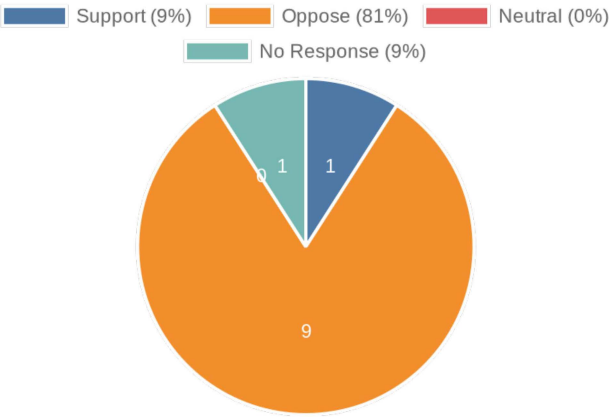
Water and Infrastructure Committee (2025-2027) on 2025-09-02 9:00 AM
09-02-25 09:00

Agenda Name	Comments	Support	Oppose	Neutral
A G E N D A	2	0	2	0
WAI-11 Bill 109 (2025) BILL 109 (2025), AMENDING CHAPTER 20.35, MAUI COUNTY CODE, RELATING TO OUTDOOR LIGHTING (WAI-11)	9	1	7	0

Sentiments for All Agenda Items

The following graphs display sentiments for comments that have location data. Only locations of users who have commented will be shown.

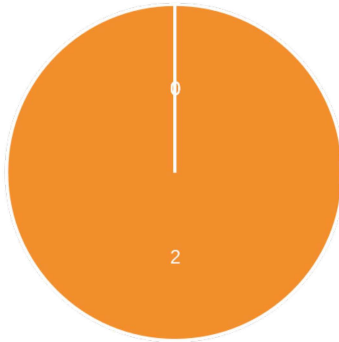
Overall Sentiment



Agenda Item: eComments for A G E N D A

Overall Sentiment

Support (0%) Oppose (100%) Neutral (0%)
No Response (0%)



DAVID HENKIN

Location:

Submitted At: 10:50am 09-02-25

Please find attached the February 22, 2022 letter from DOFAW to DPW that I referenced in my oral testimony.

Jeff Bagshaw

Location:

Submitted At: 12:10pm 09-01-25

My name is Jeff Bagshaw, and I work for the State of Hawaii's Division of Forestry and Wildlife, but I am testifying for myself, not my agency.

I oppose Bill 109 which claims to clarify Bill 21 CD! FD2 of county Chapter 20.35. Bill 109 moves the compliance date forward, erases definitions details that provide clarity such as those that describe shielding, returns lighting levels to those the original Bill sought to prevent, and places enforcement authority, as well as what shielding means in the hands of the the office of Works instead of Environmental Management. It does not increase safety, security, prevent crime or quality of life.

By removing and shortening definitions, eliminating lumen requirements and transferring enforcement authority, Bill 109 does none of the things it proposes is its purpose. Its purpose is clearly to water-down the original bill making it in-effective.

I stand by my original testimony years ago when Bill 21 was passed after much work and compromise by the Council and community:

"I am in strong support of Bill 21 CD1 FD2 to amend Maui County Chapter 20.35, because it specifies lighting uses that protect wildlife while addressing human needs. Limiting short wavelength content to no more than two percent of blue light content, down-directing lighting and ensuring lights are fully shielded protects native seabirds and marine life, but this also helps protect our fresh water future. It includes a three-year replacement schedule for existing lighting that is problematic as well as prohibitions on new installations of certain bulb types, light

wavelengths and direction of illumination. Light pollution is growing exponentially across Maui County, making life for native seabirds and other marine animals more difficult with each passing night.

One concern opponents have raised are the costs of conversion. It's easy to calculate those dollars, but what is more difficult to quantify are environmental services we expect to be free, even to make us money. When the issue of conversion costs are raised, please compare those to the following.

Freshwater is the first: We talk about food-security often, but water-security is even more basic unless we're willing to have a future of tankers delivering fresh water to our docks, we have to take care of all the links in the chain that keeps our waters flowing, now.

I've previously testified how seabirds are a vital link in nutrient cycling for native forests and shrublands. We get our freshwater from our forests. It may flow in streams, be stored in ponds or come from aquifers and wells, but it is first captured in our native forests. To replace the work of seabirds evenly distributing nutrients in the form of their guano, to keep forests healthy and functioning would require hundreds of thousands of dollars in helicopter time to foliar-spray our native forests. Or it would take thousands of people-hours annually, hiking through the forests with heavy packs, hand-spreading fertilizers. And there are many studies showing how those nutrients even feed our reefs in the right amounts and chemical compositions, to keep corals producing fish for food.

There are about 80,000 acres of native forests on Maui, and Hawai'i Island studies show native trees are superior at "cloud capture." Their leaf, bark and root structures have evolved to capture water from clouds touching them and channeling that water into aquifers, where most of our freshwater resides. About 30% of our freshwater is generated this way, even if it doesn't actually rain. Those native trees need nutrients like all plants, and historically, those nutrients were delivered by seabirds. ' _hi'a get about 28% of their nitrogen from marine resources, i.e. seabirds.

DOFAW has no plans and is not prepared to do arial fertilizing, but to do so at the same rate as the seabirds would conservatively cost about \$11 million annually for Maui not to mention the carbon footprint of all that helicopter fuel. Right now, we are relying on the free labor of seabirds. And there are many studies showing how those nutrients even feed our reefs in the right amounts and chemical compositions, to keep corals producing fish for food.

Which leads to another environmental service we capitalize on for free: reef fish and sea turtles. The Hawai'i Visitor Bureau's 2020 Annual Visitor Satisfaction and Activity Survey once again states that roughly 60% of visitors to Maui report they snorkeled or came to Maui specifically to snorkel. The survey doesn't report one thing I can share anecdotally. First time visitors to ' _hihi- Kina'u Natural Area Reserve will ask me about 30-40% of the time: "Can we see turtles here?" right after "Can we see fish here?" Look at souvenirs sold through any retail outlet large or small. What is one of the top five iconic creatures on tee shirts, stickers, stuffed toys, keychains... sea turtles. How many dollars in profits can be attributed to the presence of these animals and visitors wanting to remember or hope for an experience? As others have testified, over- and badly designed lighting affects all reef animals including fish and turtles.

Modern astronomers can give estimates of the values of dark skies for professional sky-watching, and there are at least a dozen private tour-companies that include star watching in their list of activities/services they provide, which can again, equate to environmental aspects we capitalize on for free. But an incalculable benefit is the ability for residents to be able to look at up and experience seeing stars used in traditional navigation as was done generations ago, and Nainoa Thompson of course used stars, but also relied on seabirds in the last hours of his first voyage as a navigator to Tahiti. The modern definition of a cultural landscape goes beyond archeological features – it includes being able to experience a landscape as our ancestors did to hear seabirds call in the night. "Honolulu City Lights" is a lovely song but rewriting those lyrics to become "Kahului City Lights" would be a sad cultural replacement for the loss of seabirds and the other pieces of the environmental chorus we are losing with in-action.

The latest estimates for sea level rise say we will lose 26-40% of the nesting habitats for seabirds in Papahānaumokuākea Marine National Monument, where 96% of the world's Laysan Albatross currently nest, a species that led early navigators here, which is unique to our islands. We have to start now in preparing for those climate refugees to move back to the lower eight Hawaiian islands. We can make room for them, we can invest in

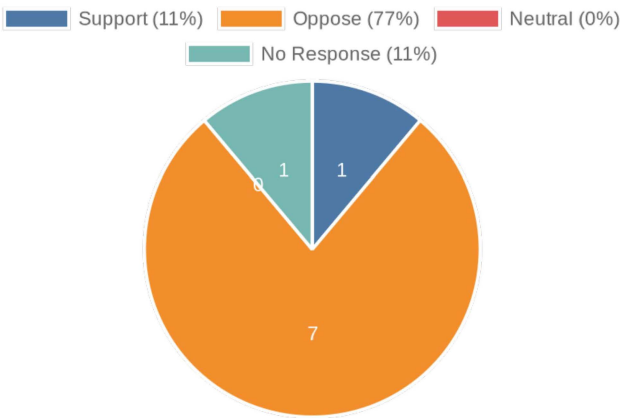
and pay for the free resources we have capitalized on for many years. Its time to pay that back-rent, to take back the night.

Kudos to this committee and the Council for working on this difficult and detailed bill. You’ve worked through many details and iterations because this is about creating “smart-lighting” instead of over-lighting. Mahalo for all your efforts.

Jeff Bagshaw

Agenda Item: eComments for WAI-11 Bill 109 (2025) BILL 109 (2025), AMENDING CHAPTER 20.35, MAUI COUNTY CODE, RELATING TO OUTDOOR LIGHTING (WAI-11)

Overall Sentiment



Cheryl King

Location:
Submitted At: 10:55am 09-02-25

Aloha! My apologies for not connecting in time to testify in opposition to this bill. We worked very hard to pass Bill 5434 that was an improvement to our previous lighting bill. We are looking forward to it being in effect in 2026, finally, to help fight light pollution that negatively affects us, our native wildlife and night skies. I'm trying to understand all of this new last-minute information and will be looking forward to being involved through this process again!

Guest User

Location:
Submitted At: 8:32pm 09-01-25

Chair Cook, Vice-Chair Sugimura, and Committee Members,

I am writing to oppose Bill 109 (2025), “A BILL FOR AN ORDINANCE AMENDING CHAPTER 20.35, MAUI COUNTY CODE, RELATING TO PROTECTING SEABIRDS FROM OUTDOOR LIGHTING.”

My name is Michelle Hester, the Co-Executive Director of a conservation and research NGO with headquarters in Kailua, Hawai’i. I am an island and marine ecologist specializing in seabird conservation and restoration solutions

with 32 years of experience.

The current Ordinance 5434 of Maui County Code, relating to protecting wildlife from outdoor lighting and preserving dark skies, is a major step in setting protections for seabirds in Hawai'i. The proposed amendment of Maui County chapter 20.35 would render the current outdoor lighting ordinance ineffective.

I highlight a few of many specific reasons to oppose Bill 109:

- Eliminating the requirement for low blue content in streetlights is unacceptable. Streetlights attract and disorient seabirds and turtles near roads and powerlines, creating documented areas of high risk and mortality. Enforcing the blue light standards in Ordinance 5434 does not endanger driving or human safety on streets.
- Paragraph A would exempt existing lights from the requirement of being fully shielded. Full shielding has been in the Maui County Outdoor Lighting Ordinance for decades; this would be a disappointing step backward.

The council should ensure that Chapter 20.35 of Maui County Code, Relating to Outdoor Lighting (WAI-11) are enforced and take pride in leading a global movement to create smart laws that balance the needs of human communities and precious ecosystems.

Thank you.

Michelle Hester
Co-Executive Director
Oikonos-Ecosystem Knowledge
PO Box 1918, Kailua, HI 96734

Guest User

Location:

Submitted At: 8:07pm 09-01-25

Testimony Opposing Bill 109 (2025) Amending Chapter 20.35, September 1, 2025
Maui County Code, Relating to Outdoor Lighting (WAI-11)

Dear Chair Cook, Vice-Chair Sugimura, and Committee Members,

My name is David Hyrenbach and I am a researcher working on quantifying light pollution and its impacts on Hawaiian Seabirds. Since 2011, I have quantified seabird groundings and mortality due to attraction and disorientation from night-time lighting. My lab has published three peer-reviewed articles documenting light pollution impacts on shearwater groundings in O'ahu.

Urmston, J., Hyrenbach, K.D., Swindle, K. 2022. Quantifying wedge-tailed shearwater (*Ardenna pacifica*) fallout after changes in highway lighting on Southeast O'ahu, Hawai'i. PLoS One 17(3): e0265832.

Hyrenbach, D., Urmston, J., Swindle, K. 2022. Road surveys detect unusually high Wedge-tailed Shearwater fallout in SE O'ahu during the 2011 fledging season. 'Elepaio, 82(1): 1-5.

Friswold, B., Swindle, K., Hyrenbach, D., Price, M.R. 2020. Wedge-tailed Shearwater *Ardenna pacifica* fallout patterns inform targeted management. Marine Ornithology 48(2): 245-254

I am writing to oppose Bill 109 (2025) "A BILL FOR AN ORDINANCE AMENDING CHAPTER 20.35, MAUI COUNTY CODE, RELATING TO PROTECTING SEABIRDS FROM OUTDOOR LIGHTING."

While Bill 109's stated purpose is to amend Chapter 20.35, Maui County Code, by updating outdoor lighting requirements that support public safety and community well-being while reducing light pollution, its passing would do the opposite. The current ordinance of Maui County Code, relating to protecting wildlife from outdoor lighting and preserving dark skies, was a major step in setting science-based protections for seabirds in Hawai'i. The proposed amendment of Maui County chapter 20.35 would render the current outdoor lighting ordinance ineffective. Below, I explain why this amendment to Bill 5435 is unnecessary and creates confusion,

20.35.060 General Requirements

A. This paragraph excludes existing lights from shielding requirements. All lights, as is stated in Ordinance 5434 need to be fully shielded.

B. This paragraph adds a requirement for streetlights to have a color rendering index (CRI) of 70%. This would eliminate all lights that comply with the requirement of less than 2% short wavelength. High Pressure sodium (HPS) lights have been in use for decades and they have a CRI of 25%-31%. Compliant LED lights currently available have a CRI of 50%. No one complained about HPS color rendering and there are no standards requiring high percentage CRI.

Kelvin values do not describe the spectral content of lights. 3000 kelvin lights have higher blue light content than the HPS they will replace and cause more distraction of wildlife and glare through windows. Current best practices state that outdoor lighting should be no more than 2200 kelvin and preferably 1800 kelvin. However, the real requirement should be, as it is in the current OLO, less than 2% content between 400 and 500 nanometers.

C. All mercury vapor lights were supposed to be replaced by January 25, 2017. Rather than deleting this line, the bill should state that mercury vapor lights are not permitted anywhere.

E. 1) There is no reason to delete the language in this clause. The change makes the requirement meaningless, if wall mounted fixtures do not have to have opaque shields and walls may be reflective.

2) The change of this clause is vague, fully shielding is already defined in the definitions and it needs to be emphasized here that lights must not shine over the ocean. A light may not be directed at the ocean to be visible from the ocean.

3) This change leave the Public Works Department (PWD) free to do nothing – as they have to date to comply with and enforce the existing law.

F. This change lets DPW do nothing rather than expecting them to be pro-active in moving Maui County toward a dark skies compliant county status.

20.35.070 Exemptions

A. 7. Statement should list the specific exemptions rather than vaguely referring to “Emergency services personnel”.

A. 8. This statement is unnecessary as it is addressed in the original language of section [6]7.

B. This statement eliminates the requirement for low blue content in streetlights, which are responsible for take of seabirds and sea turtles and contribute to raleigh scattering and degradation of the dark night skies. This exemption is unacceptable and unnecessary because Hawai_i Island has had the same OLO as ordinance 5434 for a decade and a half. Both airports and harbours on Hawai_i Island now have low blue content lighting and there are no complaints due to color rendering or safety.

In summary, the council should not approve bill 109, which would render ordinance 5434 ineffective. Rather the council should ensure that Chapter 20.35 of Maui County Code, Relating to Outdoor Lighting (WAI-11) are enforced and strengthened.

Thank you for your consideration.

Sincerely,

K. David Hyrenbach, Ph.D.
HAWAI'I PACIFIC UNIVERSITY
Marine Science Programs at Oceanic Institute
41-202 Kalaniana'ole Highway
Waimanalo, Hawai'i 96795

Tel: (808) 236-3563
Email: khyrenbach@hpu.edu

Guest User

Location:
Submitted At: 7:55pm 09-01-25

Aloha Chair Cook and Committee Members, I am writing to oppose Bill 109. This bill would weaken Maui's existing light pollution protections, so carefully crafted just a few years ago, and create more hazards for our beloved wildlife, especially seabirds and turtles. As an amateur astronomer, I know what a unique privilege it is to be able to enjoy the night sky with my family right in our own back yard. Dark skies benefit people and wildlife. Please continue to retain the strong protections adopted in 2022, especially the prohibitions on light on the ocean and the blue light limit for all fixtures, including streetlights. Thank you for your consideration.

Keith Swindle

Location:
Submitted At: 1:18pm 09-01-25

Please find attached Hawai_i Audubon Society_s testimony in opposition to Bill 109. Thank you for the opportunity to review and comment.

Guest User

Location:
Submitted At: 6:30pm 08-31-25

tests

Kelli Lundgren

Location:
Submitted At: 5:18pm 08-31-25

I oppose this Bill.

Three years ago, the County created this protection for native sea birds, sea turtles, and more, from distracting and confusing shore light produced by people. The County Council is aware of the devastating impacts upon sea and bird life because you researched this for the original bill. This proposed 2025 amendment seems to strip away requirements to down-light and shield -- or to use animal safe lighting -- after January 1, 2026. And it removes any wording offering environmental control.

Hotels, ocean front homes, new construction etc. should have retrofitted and gained compliance by now. If they have not, they seemingly will never need to after January 1, 2026, according to this Bill.

With all that is being environmentally destructed in the United States right now, local environmental safeguards can be sustained. They must be sustained. The "ask" is minor to require new building using fully shielded lighting from now into the future. If the broader picture seeks to destroy any environmental protection, which the U.S. Federal Government is remarkably and devastatingly enabling currently, keep the island protections. These smaller scope protections should survive. It's our only chance.

If the birds go away, if the honu go away, we will eventually go away. It's not a huge ask to implement shielding and proper lighting. It's a solution, not a problem.

Aloha,
Kelli Lundgren
Resident, Maui, Hawaii

Madge Schaefer

Location:
Submitted At: 3:56pm 08-31-25

FYI. It is distressing to learn that all of theatrics, light show in chambers, were fraudulent. King fooled the Council and the public. What else is being misrepresented in this Bill? As Councilmember Paltin suggested at the time,

this Bill needs to go back to Committee for further study.

The Washington Post

Democracy Dies in Darkness

Climate Solutions

Trouble in (avian) paradise: Maui turns off the lights for its birds

November 3, 2022

By Richard Morgan

In 1886, after meeting the inventor Thomas Edison in New York, Hawaii's King Kalakaua enthusiastically began electrifying the grounds of his new residence — and within a year, 325 incandescent lights had the Iolani Palace fully aglow.

10 steps you can take to lower your carbon footprint

The king wouldn't be able to pull off the same feat these days on Maui. Much of the island's outdoor illumination soon could violate a new ordinance intended to help the island's winged population. Fines could reach \$1,000 a day.

The measure restricts outdoor lighting in an effort to keep endangered birds — and Maui has some of the world's rarest — from crashing into spotlighted buildings. But Bill 21, signed into law last week, is ruffling feathers because its provisions also could keep flagpoles, church steeples, swimming pools and even luaus in the dark. "People have told me they've seen birds falling on the ground in town, up country, all over the place," said the bill's author, Kelly Takaya King, who chairs the Maui County Council's Climate Action, Resilience and Environment Committee.

Follow Climate & environment

Follow

Maui is a veritable Eden for species such as the wedge-tailed shearwater, white-tailed tropicbird, brown booby, myna, kiwiku and nene — the state bird and the world's rarest goose.

The island also is home to some 170,000 people, however, and the new law is pitting the avian paradise against the human one. The ordinance imposes a near-total ban on upward-shining outdoor lighting and limits short-wavelength blue-light content. Similar laws are in effect in many jurisdictions nationwide to protect various local interests, including the night skies in Arizona and the wilderness in New Hampshire. Maui has a more complicated set of priorities.

The outdoor light restrictions effectively prohibit nighttime hula dances and luau performances — local cultural signatures. Indoor alternatives are impractical. "Customers do not want to be in a ballroom or enclosed facility — they can go to Detroit and do that," wrote Debbie Weil-Manuma, the president of a local tourism company, in a letter of opposition.

At the same time, Maui is grappling with an invasive species arriving in flocks of up to 35,000 a day: tourists. Local officials are considering caps on hotel and vacation rentals.

Birds can be disoriented by artificial light, sometimes confusing it for moonlight, and end up slamming into a building's windows or circling until exhausted. In a single night in May 2017, 398 migrating birds — including warblers, grosbeaks and ovenbirds — flew into the floodlights of an office tower in Galveston, Tex. Only three survived. This danger is why the Empire State Building in New York City, the former John Hancock Center in Chicago and other landmark skyscrapers now go dark overnight during peak bird migration periods.

One tall building. One dark and stormy night. 395 dead birds.

Yet, most mass bird fatalities occur in urban centers with tall buildings in high density. Maui is rural, and its kalana, or county office building, is only nine stories tall.

Jack Curran, a New Jersey lighting consultant who evaluated the science behind the bill, said the council "clearly didn't do their homework." The bill also requires that lighted surfaces be nonreflective, with a matte surface if painted. As the island is coated in compliant black paint, Curran joked, "Maui will wind up looking like Halloween." Even support for the regulation is fractured. "This bill does provide good benefits," said Jordan Molina, Maui's public works director, "but it doesn't have to do so recklessly." The new law, he added, will make his office the "blue-light police."

Although the U.S. Fish and Wildlife Service did not oppose the bill, it recommended creating a habitat conservation plan unless the county could devise a foolproof lighting policy.

According to public records, the council relied on a single, non-peer-reviewed study funded by an Arizona company, C&W Energy Solutions, that lobbied for the bill. (The county's attorneys issued a memorandum in July

warning of the “potentially serious conflict of interest,” which the council ignored.) And King’s efforts were propelled in part by conservation groups’ lawsuit alleging that a luxury resort’s lights disoriented at least 15 endangered petrels between 2008 and 2021, resulting in at least one petrel’s death. (By contrast, the Maui Forest Bird Recovery Project has focused on the continuing “depredation by feral cats,” which number in the thousands on the island.)

Still at issue are the measure’s conflicting exemptions. For example, lights at public golf courses, tennis courts and schools’ athletics events are allowed, but not lights at hotel-owned golf courses or tennis courts.

Conventional string lights are permitted for holidays and cultural festivals but must be “fully shielded” for all other uses, including weddings. The county fair is also exempt. So are emergency services and emergency road repairs.

The law will inhibit TV and film crews’ night lights, such as those used by “Hawaii Five-O,” “NCIS: Hawaii” and “The White Lotus.” The latter was honored in October by the Maui County Film Office for giving the island national and international recognition.

To guard migratory birds, Philadelphia plans to cut its artificial lighting that can fatally distract flocks

King told local media that compliant lights are widely available online. But when asked recently for online links to such bulbs, her office sent just one — for a bedside night light that can double as an outdoor bug light, although it was unclear whether the bulb meets all of the ordinance’s specifications.

“Appropriate lighting is not available,” King then conceded. “We’re hoping it will be in the next few years. When you pass a lot of these environmental laws, you kind of have to go in steps to get them passed.”

As passed, the bill explicitly removed exemptions for field harvesting, security lighting at beaches run by hotels or condominiums, safety lighting for water features, motion-sensor lighting, and lighting on state or federal property — including Maui’s harbors and even the runway lights at its airports.

Council member Shane Sinenci supported the ultimate provisions. “Our unique biodiversity is what makes us appealing to both visitors and to residents alike,” the Maui News quoted him as saying before the final vote. “We are often underestimating the value of a healthy ecosystem and all the benefits that comes with it.”

The law takes effect in July for new lighting and requires existing lighting to be in compliance by 2026.

DAVID HENKIN

Location:

Submitted At: 3:26pm 08-30-25

Please find attached Earthjustice’s testimony in opposition to Bill 109, which we are submitting on behalf of Conservation Council for Hawai’i and the American Bird Conservancy.

From: [David Henkin](#)
To: [thomas.cook@mauicounty.us](#); [yukilei.sugimura@mauicounty.us](#); [keani.rawlins@mauicounty.us](#); [alice.lee@mauicounty.us](#); [tasha.kama@mauicounty.us](#); [gabe.johnson@mauicounty.us](#); [tamara.paltin@mauicounty.us](#); [shane.sinenci@mauicounty.us](#); [nohe.uu-hodgins@mauicounty.us](#)
Cc: [Mahesh Cleveland](#)
Subject: Additional Testimony re: Bill 109 - February 22, 2022 Letter from DOFAW
Date: Tuesday, September 2, 2025 10:30:00 AM
Attachments: [2022-2-24 DOFAW letter.pdf](#)

Members of the WAI Committee,

Please find attached for the committee's consideration the letter that DOFAW sent to Maui County DPW in 2022 recommending that streetlights in Maui County have a correlated color temperature (CCT) of 2200 Kelvin or less, or a blue light content of less than 2%. This is contrary to the provisions of Bill 109, which would eliminate the low-blue-light requirement and would allow a CCT of up to 3000 Kelvin.

Aloha,

David Henkin
(*pronouns he/him*)
Attorney
Earthjustice
Admitted to Practice in HI

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DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

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

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
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

February 24, 2022

Rowena M. Dagdag-Andaya, Director
County of Maui Department of Public Works
Engineering Division
200 South High Street
Room No. 410
Wailuku, Maui, HI 96793

Dear Ms. Dagdag-Andaya,

Subject: Request for consultation for proposed streetlight replacement at various locations; DPW Project No. 22-44

The Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) has received the subject request for consultation. As General Electric has ceased the production of high-pressure sodium (HPS) light fixtures, the Department of Public Works (DPW) proposes to replace those lights when they are broken or burnt-out with new light-emitting diode (LED) fixtures. DPW seeks concurrence that the replacement of the HPS lights with LED lights is exempt from the preparation of an environmental assessment (EA), pursuant to Chapter 343, Hawai'i Revised Statutes (HRS). Pursuant to §11-200.1-15, Hawai'i Administrative Rules, exemptions from the preparation of an EA are provided for certain categories of projects that will individually and cumulatively probably have minimal or no significant effects.

DOFAW appreciates the intent to replace broken streetlights in compliance with lighting standards identified in §201-8.5, HRS. However, we have documented incidences of protected seabirds being downed at LED streetlights reported to have been rated at 4,000 Kelvin or less. The Division of Aquatic Resources is additionally concerned with the impacts of lighting on the nesting success of both ESA endangered hawksbill and threatened green sea turtles on Maui. We therefore recommend that those replacement LED lights being installed under an exemption from preparation of EA be designed or filtered so as to have a correlated color temperature of 2200 Kelvin or less, or a blue light content of less than 2%. Blue light content refers the ratio of the amount of energy emitted by the outdoor light fixture between 400 and 500 nm, divided by the amount of energy between 400 and 700 nm. LED lights with these specifications have been found to have fewer impacts on protected wildlife, including seabirds and turtles, and are consistent, for example, with lighting ordinances on the island of Hawai'i.

If you have any questions, please contact Paul Radley, Protected Species Habitat Conservation Planning Coordinator at (808) 295-1123 or paul.m.radley@hawaii.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "DGS", is positioned above the printed name.

DAVID G. SMITH
Administrator



Hawai'i Audubon Society

850 Richards St., Suite 505, Honolulu, HI 96813-4709
office@hiaudubon.org <https://hiaudubon.org>

Hawai'i Audubon Society Opposes Bill 109 (2025) Amending Chapter 20.35, Maui County Code, Relating to Outdoor Lighting (WAI-11)

Dear Chair Cook, Vice-Chair Sugimura, and Committee Members,

On behalf of the Hawai'i Audubon Society, I extend our heartfelt gratitude for Maui's leadership on addressing harmful outdoor light pollution. In 2023, Maui set a high but reasonable bar. That existing ordinance: **protects endangered wildlife** including seabirds and sea turtles disoriented by bright or blue-rich lighting near the coast; **supports cultural, astronomical, and tourism value** by preserving dark night skies, which are integral to navigation traditions and the island's appeal; **encourages energy conservation**, more wildlife-aware lighting design, and challenges manufacturers to produce fixtures with measurable spectral specifications.

I and many of our members have seen firsthand the egregious impacts that light pollution has on our wildlife on every electrified island in the State. For this reason, we **oppose bill 109 as currently written** because several changes would significantly weaken protections for Maui's endangered wildlife and treasured dark skies.

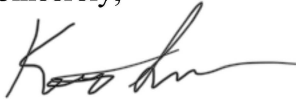
- **Roadway lighting exemption:** By removing road and highway lighting from the requirement to limit blue light to 2%, the bill creates a major source of skyglow and disorientation risk for seabirds and sea turtles. The $\leq 2\%$ blue 2022 standard, was a landmark step in aligning Maui with best practices for wildlife-friendly lighting.
- **Ocean lighting safeguard:** The current ordinance wisely requires shielding to ensure *no light shines over the ocean*. The proposed amendment softens this to fixtures "not aimed at the ocean." This change risks increased coastal light trespass, undermining years of conservation gains.
- **Weakened enforcement:** By shifting rulemaking from "must adopt" to "may adopt," the proposal reduces the County's ability to ensure consistent, transparent, and enforceable standards. Predictable compliance is essential both for residents and for the businesses investing in compliant fixtures.
- **Loss of nighttime curfews:** Repealing the lamp-type usage table eliminates the long-standing requirement for many lights to be extinguished overnight, a proven dark-sky and energy-saving measure.

Maui has been recognized for leadership in protecting endangered seabirds, sea turtles, and night skies. The current ordinance reflects thoughtful compromises among safety, culture, and conservation. Weakening these safeguards would jeopardize both our wildlife and our reputation as a world leader in dark-sky protection.

We urge the Committee to **retain the strong protections adopted in 2022**, especially the $\leq 2\%$ blue light limit for all fixtures (including roadways) and the prohibition on coastal light spill. At minimum, please consider amendments to preserve these critical safeguards.

Thank you for your consideration, and for your continued commitment to protecting Maui's natural and cultural heritage.

Sincerely,

A handwritten signature in black ink, appearing to read "Keith Swindle", with a long horizontal flourish extending to the right.

Keith Swindle
Executive Director
Hawai'i Audubon Society



TESTIMONY IN OPPOSITION TO BILL 109 (2025)
AMENDING CHAPTER 20.35, MAUI COUNTY CODE,
RELATING TO OUTDOOR LIGHTING (WAI-11)

Water and Infrastructure Committee Meeting
September 2, 2025
9:00 a.m.

Good morning, Chair Cook, Vice-Chair Sugimura, and members of the Committee:

My name is David Lane Henkin, and I am an attorney with Earthjustice.¹ I submit this testimony on behalf of Conservation Council for Hawai'i and the American Bird Conservancy *in strong opposition to Bill 109 and the proposed CD1*, which would amend Maui County's lighting ordinance to strip critical protections for Hawai'i's imperiled native seabirds.

Three years ago, the Maui County Council adopted Ordinance 5434, which updated the County's lighting ordinance to reflect the latest science on how best to minimize harm from artificial lighting, which attracts Hawaiian petrels, Band-rumped Storm-petrels, and Newell's shearwaters, resulting in fallout and death. Each of those seabird species is listed as endangered or threatened under both the federal Endangered Species Act and Hawai'i state law. Ordinance 5434 recognized that, to protect our native seabirds, it is vital to reduce short wavelength light in all outdoor lighting fixtures, including streetlights.

With no justification, Bill 109 proposes to exempt streetlights—major sources of bright, artificial light—from Ordinance 5434's low-blue-light requirements, which were designed to implement the Council's stated intent "to protect native Hawaiian wildlife as much as possible from interference of onshore sources of artificial light." Ordinance 5434, § 1.

Seabird-Friendly Streetlights Are Available

There is no reason to adopt Bill 109's proposal to exempt "[l]ighting used for the illumination of highways and roadways" from § 20.35.060(D)'s mandate to reduce blue-light content, which harms our native seabirds. Proposed § 20.35.070(B).

Seabird-friendly streetlights that comply with the County's existing requirements are available on the market. In 2011, Hawai'i Island adopted the same low-blue-light requirement as Maui County, including for its streetlights, which use filtered LED fixtures.² There are also non-

¹ I am registered as a lobbyist.

² See Hawai'i County Code § 14-51(a)(9); *see also id.* § 14-55, Table 14-A (specifying that LED fixtures must have "less than 2% blue light content").

filtered streetlight fixtures specifically designed to reduce blue-light-content: the Guideway™ Series LED fixtures from Cree Lighting. Earlier this year, the Maui County Department of Public Works confirmed that the Cree streetlight fixtures “meet the requirements in County Ordinance 5434.” January 21, 2025 DPW Letter (attached). Simply put, there is no reason that Maui County cannot install streetlight fixtures that comply with the existing requirement in § 20.35.060(D) to reduce blue-light content.

The Proposed Requirement of 70%+ Color Rendering Index Is Baseless

There is no justification—and none is offered—for Bill 109’s proposal to require streetlights to “have a color rendering index [(CRI)] no less than 70 percent.” Proposed § 20.35.060(B). For decades, Maui County’s roadways have been illuminated by high pressure sodium (HPS) streetlight fixtures that have a CRI of only around 20%, and HPS streetlights with this CRI percentage remain the dominant streetlight fixture on Maui County roads to this day. The roads on Hawai’i Island likewise are illuminated by streetlight fixtures with a CRI far less than 70%. There is absolutely no evidence that these existing streetlight fixtures are unsafe. Rather, Bill 109’s inclusion of a requirement of 70% or greater CRI seems designed solely to preclude the use of available, low-blue-light compliant streetlight fixtures like those from Cree Lighting, which have a CRI of 50% (which is significantly higher than the approximately 20% CRI of the HPS streetlights currently on Maui County’s roads).

We strongly urge the Committee to kill Bill 109, which would prevent the County from achieving its goal to “protect native Hawaiian wildlife from the destructive impacts of lighting pollution.” Ordinance 5434, § 1.

Thank you for the opportunity to provide this testimony. I will be available at the Committee meeting to answer any questions you may have. I can also be reached via email at dhenkin@earthjustice.org or via telephone at 808-599-2436.

RICHARD T. BISSEN, JR.
Mayor

JOSIAH K. NISHITA
Managing Director

JORDAN MOLINA
Director

PAUL M. BARANY, P.E.
Deputy Director

WADE SHIMABUKURO, P.E.
Development Services Administration

RODRIGO "CHICO" R. RABARA, P.E.
Engineering Division

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DEPARTMENT OF PUBLIC WORKS
COUNTY OF MAUI
200 SOUTH HIGH STREET, ROOM NO. 434
WAILUKU, MAUI, HAWAII 96793
www.maui-county.gov/publicworks

January 21, 2025

Mr. Dave S. Okamura, P.E.
Director, Engineering Division
Hawaiian Electric Company, Ltd – Maui County
P.O. Box 398
Kahului, Maui, HI 96733-6898

SUBJECT: MAUI ELECTRIC REQUEST FOR STREETLIGHT FIXTURE GUIDELINES

Dear Mr. Okamura:

We received your letter, dated December 23, 2024, requesting the Department of Public Works (DPW) guidance on the selection of LED streetlight fixtures for replacement that meet both the requirements of County Ordinance 5434 and Maui County Code 20.35.060(F).

Hawaiian Electric Company, Ltd. – Maui County provided the DPW product information on the Guideway™ Series LED fixtures from Cree Lighting. Upon further review, we have determined that the specific products listed below meet the requirements in County Ordinance 5434 and MCC 20.35.060(F):

70-watt HPS equivalent (roadway)

CREE GWY-S-A-8L-19K5-2M-UL-BZ (or GY)-20KV-7PIN RECEPTACLE
8L 6069 lumens at 19K, type 2 distribution

70-watt HPS equivalent (cul-de-sac)

CREE GWY-S-A-8L-19K5-4M-UL-BZ (or GY)-20KV-7PIN RECEPTACLE

150-watt HPS equivalent (roadway)

CREE GWY-M-A-13L-19K5-3M-UL-BZ (or GY)-20KV-4B-7PIN RECEPTACLE
13L 10,185 lumens at 19k, type 3 distribution

Mr. Dave Okamura, P.E.

SUBJECT: MAUI ELECTRIC REQUEST FOR STREETLIGHT FIXTURE GUIDELINES

January 21, 2025

Page 2

All three fixture types shall come with a 10-year warranty (W10).

Please provide a cost proposal for this work, which includes the procurement and installation of these CREE LED fixtures. The DPW will authorize the purchasing of the lights once a formal contract between the County and Hawaiian Electric has been executed.

If you have any questions, please contact Kurt Watanabe at (808) 463-3120 or via email at kurt.watanabe@co.maui.hi.us.

Sincerely,



JORDAN MOLINA
Director of Public Works

JM/KW (ED25-0037)

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cc: Brian Bilberry, Department of the Corporation Counsel (electronic)
Traffic Section (electronic)