

September 8, 2022

MEMO TO: Members of the Climate Action, Resilience, and Environment Committee

F R O M: Kelly Takaya King, Chair 
Climate Action, Resilience, and Environment Committee

SUBJECT: **BILL 21, CD1, FD1 (2022), SEABIRD AND BIODIVERSITY PROTECTION** (CARE-74)

On August 29, 2022, the Department of the Corporation Counsel submitted a memo to the CARE Committee regarding Bill 21, CD1, FD1 (2022) on outdoor lighting. The memo had four sections:

- I. “Suggested Additional Exemptions.”
- II. “New Construction Projects Will Be Delayed Due to the Unavailability of Compliant Lights.”
- III. “We Recommend a More Widely Accepted Definition of ‘Blue Light.’”
- IV. “The County May Be Sued by Environmental Groups Because Some Studies Show Seabirds Are Most Disoriented by Red and Yellow Light, Not Blue Light.”

This document responds to the assertions in each section.

Section I. “Suggested Additional Exemptions.”

The memo suggested five categories of new exemptions, each of which are addressed below. After receiving input from the community and Administration, substantial exemptions were added to the bill for residential properties, sporting and special events, and emergency services. In addition, the bill was amended to remove the requirement to use only FLED light fixtures. That compromise increased the availability of compliant lighting fixtures. Further exemptions would have a cumulative effect of diminishing the bill’s ability to reach its stated goal of protecting wildlife.

The primary basis for the suggestion to add exemptions is the memo’s assertion that lights compliant with the ordinance would be unavailable. In fact, there are

hundreds of compliant lights from dozens of suppliers that can help businesses and others gradually upgrade their lighting during the grace period over the next three years after the bill becomes effective in January 2023. The bill authorizes the Director of Public Works to compile a list of compliant lights. The State of Florida and Hawaii County have lists that can be used as models.

Maui County could adopt the State of Florida's list of hundreds of compliant lights because Florida has a stricter 0% blue light standard. To get on the Florida list, lighting companies had to submit rigorous LM79 reports that prove their fixture emits no light below 560nm (aka blue light) and they meet Florida's 0% blue light standard. The County can either ask those same companies to provide the same reports, or the County can get the whole list by open records request to Florida.

Maui County could immediately adopt the Hawaii County list of compliant lights because Hawaii County uses the same 2% blue light standard that is in Bill 21. Hawaii County has been meeting the 2% blue light standard for more than 10 years. Hawaii County is eager to collaborate with Maui County to expand the shared list of compliant lights over the next three years of the bill's proposed grace period.

Responses to specific suggested exemptions:

(a) Lighting for swimming pools and water features. Hotel pool lights are often close to the ocean. So, their lights cause a significant risk to native turtles and seabirds. Hotels have the ability to install compliant lights and three years to make the change. Hotel with pools and water features are heavy water users that do not need special treatment.

Compliant pool lights:

[Turtle-Safe Pool and Spa Lights \(bluesquaremfg.com\)](https://bluesquaremfg.com)
[Certified Underwater Lights \(myfwc.com\)](https://myfwc.com)

(b) String lights. The memo recommended "exempting string lights altogether." There is no legal reason to do so. There are widely available, fully shielded string lights that use incandescent or amber bulbs, so there is no need to exempt LED string lights for restaurants or other businesses. Also, compliant string lights create attractive ambience for restaurants and events. They even have inexpensive shields that can be added to existing lights. Finally, there is also a three-year phase in period to replace existing lights with compliant lights.

Fully shielded amber incandescent string lights:

<https://tinyurl.com/2r4d2rnd>

<https://tinyurl.com/2eh2hjns>

Shields to add to existing string lights:

<https://tinyurl.com/ymmd8mhr>

(c) Security lights on timer. There is no reason these lights cannot be on a timer, fully shielded, and compliant with the 2% blue light standard. There are hundreds of compliant bulbs for businesses to use, and they have three years to upgrade.

(d) Lighting for recreational facilities. The memo claimed that night sports would have to shut down on private property. The bill has a broad exemption for sports, recreational facilities, and special events like festivals and the fair on public property and property owned by groups like the YMCA. For property that is not exempt, like hotels and private country clubs, there are compliant lights, and they have three years to upgrade. This is not a legal issue; the memo recommended a policy decision to exempt private country clubs and hotels that do harm to the environment and pollute the night sky for the rest of us.

(e) Concerts and theatrical performances. Special events like concerts and theatrical performances at Department of Education properties, private school properties, nonprofit organization properties, and County parks and facilities are exempt. Similar events at private facilities, like luaus at hotels, must use compliant lighting—and, again, they have three years to comply. Non-compliant lighting at hotels, including for events like concerts and luau pose a significant risk due to their close proximity to the ocean. Events at hotels that are targeted for tourists should not be exempt at the expense of the general public and the environment. Again, the memo inaccurately asserted that events would have to be canceled. Once again, there is a three-year exemption for all existing lighting and compliant lighting exists when they want to upgrade.

Compliant lighting for outdoor events:

[Certified Pole Fixtures \(myfwc.com\)](https://myfwc.com)

[Products | C&W Energy Solutions \(cwenergyusa.com\)](https://cwenergyusa.com)

Section II. “New Construction Projects Will Be Delayed Due to the Unavailability of Compliant Lights.”

The memo stated that adhering to blue-light standards could result in delays similar to what has been experienced in Hawaii County, and they submitted transcripts from two projects to make this point. First, staffing shortages, not availability of lights, most likely cause the delays. The electrical engineer that approved lights for Hawaii County resigned, and the County had not yet found someone to fill the role. According to meeting minutes, Robyn Matsumoto, Acting Building Chief, stated: “Basically, you know, we've changed engineers. We had an electrical engineer licensed back in 2018. We currently don't have one, so the responsibility does fall upon me to verify any testing data.” The memo failed to include this fact in its memo to this committee. Also, at the time of the delay, Hawaii County was not aware of the expansive State of Florida list of compliant lights, but they now are.

Section III. “We Recommend a More Widely Accepted Definition of ‘Blue Light.’”

The memo contradicted what experts have told the Council and Committee repeatedly: the kelvin standard is not a proper measurement of blue light. First, memo referred to the International Dark Sky Association and recommended using its kelvin standard. But the Technical Director of International Dark Sky Association, Pete Strasser, testified to the Committee that the kelvin standard was not the right standard to use. The kelvin standard can be, and has been, manipulated by manufacturers. Additionally, Jay Penniman has decades of experience studying and working to save native seabirds, and he submitted his scientific study that recommends the 2% blue light standard to the Council. Finally, the memo disregarded Hawaii County’s use of the 2% blue light standard for over 10 years. As previously discussed, the Hawaii County and State of Florida lists of compliant lights are resources Maui County can rely on and adopt.

Section IV. “The County May Be Sued by Environmental Groups Because Some Studies Show Seabirds Are Most Disoriented by Red and Yellow Light, Not Blue Light.”

The CARE Committee received testimony and presentations from several scientific experts and leaders of environmental groups, all supporting the 2% blue light standard. There is no indication any of them or the organizations would challenge Bill 21, if enacted, in court. In any case, there has no

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indication—in the memo or elsewhere—that a potential lawsuit against the County would be viable.

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