

HB452_Green Towson Alliance_Hoffman_FAV.pdf

Uploaded by: Kirsten Hoffman

Position: FAV



March 21, 2025

**HB452 Outdoor Lighting - Guidance and Use of State Funds
Education, Energy and the Environment Committee
Hearing March 25, 2025
FAVORABLE**

Dear Chair Feldman, Vice Chair Kagan, and honorable members of the Committee,

The Green Towson Alliance writes in support of HB452. This bill will require the Maryland Green Building Council to develop guidance for certain state-purchased permanent outdoor lighting fixtures, in order to reduce light pollution and color temperature. This guidance will be in accordance with recommendations from the American Medical Association, which recommends lighting that is fully shielded and downward directed, with a color temperature no greater than 3,000 Kelvins.¹

The American Medical Association has issued numerous reports documenting the harmful effects of artificial night lighting, especially bright, light-emitting diode (LED) lighting. Excessive night light deprives us of the awe-inspiring experience of looking up and seeing the majestic, star-filled night sky. It also causes the suppression of melatonin production, which is linked to depressed immune function, diabetes, cancer, and other health issues.

At a time when insect, bird, and other wildlife populations are plummeting globally, light pollution causes additional pressure and mortality. Bright lights attract and disorient the 60% of animals that are nocturnal, such as fireflies, moths, bats, and sea turtle hatchlings, all of whom have evolved with natural nocturnal light. Millions of birds die per year when artificial night light attracts them to buildings during nocturnal migration, increasing fatal collisions. Neotropical migrant species like our beloved Baltimore Oriole are at risk.

We ask for a favorable report on HB452 as an important step toward limiting the harmful impacts of light pollution to people and wildlife in our state.

Respectfully,
Adreon Hubbard
Green Towson Alliance
1207 Overbrook Rd Idlewylde, MD

Kirsten Hoffman
Green Towson Alliance Legislative Chair
701 W Joppa Rd, Towson, MD

The Green Towson Alliance unites Towson area environmentalists to create a greener, healthier and more beautiful community through collaboration and activism.

¹ *AMA J Ethics*. 2024;26(10):E804-810. Doi: 10.1001/amajethics.2024.804.

HB 452_Sierra Club_FAV_EEE_03252025.pdf

Uploaded by: Michael Wilpers

Position: FAV



SIERRA CLUB

MARYLAND CHAPTER

P.O. Box 278
Riverdale, MD 20738

Committee: Education, Energy, and Environment (Senate)
Testimony: HB 452 “Outdoor Lighting - Guidance and Use of State Funds”
Position: Favorable
Hearing Date: March 25, 2025

The Maryland Chapter of the Sierra Club urges a favorable report on HB 452. The bill expands the scope of a 2011 law requiring state-funded outdoor lighting fixtures that maximize energy conservation and minimize light pollution at state buildings and state facilities. It expands the existing provisions to state-funded outdoor lighting at parks and trails. The bill also requires the Maryland Green Building Council to update or develop guidance for the purchase of outdoor lighting fixtures in consideration of recommendations regarding light pollution and color temperature published by the American Medical Association.

The bill also limits the color temperature of state-funded outdoor lighting to 3,000 Kelvin, consistent with 2016 American Medical Association (AMA) guidance.¹ 3,000K is considered “warm white” and is less disruptive to the health and behaviors of nocturnal wildlife, including fireflies, and night pollinators. A study by Hood College in Frederick County found that fireflies drastically reduced their light-blinking behavior when exposed to just one tenth the light of a streetlamp using cooler colors, threatening their ability to mate, control mosquitoes, and pollinate flowers.² The Bethany Beach Firefly is now rated “highly state rare” by the Department of Natural Resources and is found only in Wicomico County, partly due to light pollution.³ The bill also requires the Department of the Environment (MDE), in consultation with other agencies, to develop outdoor lighting standards that consider energy consumption, the environment, and public health and safety.

The benefit of this legislation is that it expands efforts to address the harmful effects of artificial lighting at night. As discussed in a January 2023 article in the journal *Science*,⁴ excessive artificial lighting at night can have a detrimental impact on the welfare of animals and humans alike.

For over two decades, our state has recognized the need to address light pollution. In 2001, former Treasurer Nancy Kopp championed a joint resolution to establish the Task Force to Study Lighting Efficiency and Light Pollution in Maryland which issued an important report in 2002.⁵ Chapter 353 of 2011 established the current policy of requiring efficient/shielded

¹ 2016 “American Medical Association adopts guidance to reduce harm from high intensity street lights,” <https://www.ama-assn.org/press-center/press-releases/ama-adopts-guidance-reduce-harm-high-intensity-street-lights>

² Costin, K.J., and Boulton, A.M., “A Field Experiment on the Effect of Introduced Light Pollution on Fireflies (Coleoptera: Lampyridae) in the Piedmont Region of Maryland,” *The Coleopterists Bulletin*, vol. 70, no.1, (2016), <http://www.bioone.org/doi/10.1649/072.070.0110>.

³ *Ocean City Today*, 7-14-2023, Where are all of Maryland's fireflies? | Lifestyle | oceancitytoday.com

⁴ *Science*, January 19, 2023, vol. 379, no. 6629, “Light Pollution is Skyrocketing,” <https://www.science.org/doi/10.1126/science.adf4952>

⁵ March 2002 Report of the Task Force to Study Lighting Efficiency & Light Pollution in Maryland, Founded in 1892, the Sierra Club is America’s oldest and largest grassroots environmental organization. The Maryland Chapter has over 70,000 members and supporters, and the Sierra Club nationwide has over 800,000 members and nearly four million supporters.

fixtures for new/replacement outdoor lighting at state buildings and state facilities. In 2014 the Maryland Department of General Services and the Green Purchasing Committee (established by Chapter 594 of 2010) published specifications for the purchase of environmentally friendly lighting.^{6,7}

By regulating outdoor lighting to modern scientific environmental, safety and efficiency standards, HB 452 helps our state government to continue to lead by example in efforts to address harms caused by light pollution.

For these reasons, we urge a favorable report on HB 452.

Al Carr
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Chapter Director
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<https://msa.maryland.gov/megafile/msa/speccol/sc5300/sc5339/000113/000000/000008/unrestricted/20030006e.pdf>

⁶ Maryland Green Purchasing Committee Approved Specification – Lighting Products
<https://dgs.maryland.gov/Documents/GreenPurchasing/Specs/LightingProductsSpecification.pdf>

⁷ Maryland Department of General Services lighting resource page on Green Purchasing
<https://dgs.maryland.gov/Pages/GreenPurchasing/Resources/Lighting.aspx>

Senate - HB 452 - Favorable - Del Guyton.pdf

Uploaded by: Michele Guyton

Position: FAV

MICHELE GUYTON
Legislative District 42B
Baltimore County

Environment and Transportation
Committee



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THE MARYLAND HOUSE OF DELEGATES
ANNAPOLIS, MARYLAND 21401

March 25, 2025

Favorable
House Bill 452 - Outdoor Lighting - Standards and Use of State Funds

Dear Feldman and members of the Education, Energy, and the Environment COmmittee,

I am pleased to present **House Bill 452 - Outdoor Lighting - Standards and Use of State Funds**, which would require the Maryland Green Building Council to develop standards and update their specifications for outdoor lighting with consideration of the latest information on light pollution including color temperature recommendations of the American Medical Association.

With this legislation, state funds would not be allowed to be used to install or replace permanent outdoor luminaires for the lighting of any state building, facility, park, trail, or highway unless the luminaire is designed to maximize energy conservation, and minimize light pollution, glare, and light trespass. The luminaires installed must have a correlated light temperature that is less than or equal to 3,000 kelvin, which is the global recommendation from Dark Sky International. House Bill 452 addresses light pollution in the state of Maryland and its contribution to higher energy consumption, disruption of sleep patterns in humans, wildlife disruption, and limitations on nighttime military training.

Passage of House Bill 452 is consistent with the goals of Maryland's Climate Pollution Reduction Plan by reducing the electricity consumption of lighting fixtures across Maryland.

I urge the committee to give a **favorable report** for **House Bill 452 - Outdoor Lighting - Standards and Use of State Funds**.

Sincerely,

A handwritten signature in cursive script that reads "Delegate Michele Guyton".

Delegate Michele Guyton

Senate - HB 452 - Favorable - Del Guyton.pdf

Uploaded by: Michele Guyton

Position: FAV

MICHELE GUYTON
Legislative District 42B
Baltimore County

Environment and Transportation
Committee



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THE MARYLAND HOUSE OF DELEGATES
ANNAPOLIS, MARYLAND 21401

March 25, 2025

Favorable
House Bill 452 - Outdoor Lighting - Standards and Use of State Funds

Dear Chair Feldman, Vice Chair Kagan, and Members of the Education, Energy, and the Environment Committee,

I am pleased to present **House Bill 452 - Outdoor Lighting - Standards and Use of State Funds**, which would require the Maryland Green Building Council to develop standards and update their specifications for outdoor lighting using the latest recommendation with consideration of the latest information on light pollution and the recommendations of the American Medical Association.

With this legislation, state funds would not be allowed to be used to install or replace permanent outdoor luminaires for the lighting of any state building, facility, park, trail, or highway unless the luminaire is designed to maximize energy conservation, and minimize light pollution, glare, and light trespass. The luminaires installed must have a correlated light temperature that is less than or equal to 3,000 kelvin, which is the global recommendation from Dark Sky International. House Bill 452 addresses light pollution in the state of Maryland and its contribution to higher energy consumption, disruption of sleep patterns in humans, wildlife disruption, and limitations on nighttime military training.

Passage of House Bill 452 is consistent with the goals of Maryland's Climate Pollution Reduction Plan by reducing the electricity consumption of lighting fixtures across Maryland.

I urge the committee to give a **favorable report** for **House Bill 452 - Outdoor Lighting - Standards and Use of State Funds**.

Sincerely,

A handwritten signature in cursive script that reads "Delegate Michele Guyton".

Delegate Michele Guyton

HB452_FAV_Xerces_Society_testimony.pdf

Uploaded by: Richard Joyce

Position: FAV

Committee: Education, Energy, and the Environment
Testimony on: House Bill 452 Outdoor Lighting – Guidance and Use of State Funds
Position: Favorable
Hearing Date: 25 March 2025

Dear Chair Feldman, Vice-Chair Kagan, and Members of the Committee:

My name is Richard Joyce, and I write on behalf of the Xerces Society for Invertebrate Conservation to express **support for House Bill 452, Outdoor Lighting—Guidance and Use of State Funds.**

The Xerces Society is a science-based non-profit that protects wildlife through the conservation of invertebrates and their habitats. Insects are crucial parts of healthy ecosystems, with important roles in pollination, nutrient cycling, natural pest control, and the food chain. Light pollution has historically been overlooked as a driver of declines in insect populations, but a growing body of research tells us that the rapid increase of artificial light at night is a cause for concern and action.¹

Maryland has over 30 species of fireflies, including five that are categorized as critically endangered, endangered, or vulnerable on the International Union for Conservation of Nature’s (IUCN) Red List of Threatened Species². Xerces Society biologists have conducted research on several of these species in Wicomico and Worcester counties. One species, the Bethany Beach firefly, was proposed for listing as Threatened under the Endangered Species Act by the US Fish and Wildlife Service in 2024, and light pollution was identified as one of its threats³. As nocturnal animals whose reproduction depends on dark nights, fireflies are emblematic of the many insects we stand to lose if we fail to address light pollution.

The advent of LED lighting has been a boon for energy efficiency, but it has also allowed for the proliferation of outdoor lighting that does not comply with the International Dark Sky Association’s five criteria for responsible outdoor lighting: useful, targeted, low-

¹ Owens, A. C. S., Cochard, P., Durrant, J., Farnworth, B., Perkin, E. K., & Seymoure, B. (2020). Light pollution is a driver of insect declines. *Biological Conservation*, 241, 108259.
<https://doi.org/10.1016/j.biocon.2019.108259>

² Fallon, C., Walker, A., Lewis, S., & Jepsen, S. (2022). *State of the Fireflies of the United States and Canada: Distributions, Threats, and Conservation Recommendations* (p. 64). The Xerces Society for Invertebrate Conservation. https://xerces.org/sites/default/files/publications/21-021_02_web-print.pdf

³ “Endangered and Threatened Wildlife and Plants; Threatened Species Status with Section 4(d) Rule for Bethany Beach Firefly” 89 Fed. Reg. 79857-79880 (proposed 1 Oct. 2024).
<https://www.govinfo.gov/content/pkg/FR-2024-10-01/pdf/2024-22358.pdf#page=1>

level, controlled, and warm-colored. Too often, outdoor lighting installed with good intentions leads to the degradation of valuable wildlife habitat. **The inclusion of parks and trails in the scope of HB 452 will help to curtail light pollution in the state's natural areas.**

Thankfully, light pollution is a problem that can be rapidly reversed, with benefits to wildlife and humans alike. By requiring the Maryland Green Building Council to develop updated guidance on outdoor lighting fixtures and ensuring that state-funded outdoor lighting complies with this guidance, we can provide safe and responsible outdoor lighting while minimizing harms to insects and other wildlife.

The Xerces Society for Invertebrate Conservation urges a favorable report on HB 452.

Respectfully submitted,



Richard Joyce
Endangered Species Conservation Biologist
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