



Conservation Committee

Agenda

Thursday, August 3, 2023

7:00 P.M.

VIRTUAL MEETING

Due to renovations at Village Hall, the traditional meeting space is facing conflicts with other Village business. With the Village Board's action on Monday, July 3, volunteer committees have been allowed the opportunity to convene virtually. To join, you may download the program by clicking this link www.microsoft.com/en-us/microsoft-teams/download-app if clicking the link below does not launch the meeting.

[Click here to join the meeting](#)

Meeting ID: 262 701 328 540

Passcode: pnGxVk

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[+1 213-279-1824,,970189004#](tel:+12132791824970189004) United States, Los Angeles

1. Call to order
2. Consider approval of the July 6 meeting minutes
3. Concerns from the Community
4. Discussion and recommendation on Streetlight Replacement/Dark Skies memo drafted by committee member Chuck Hagner
5. Upcoming Events
6. Adjournment

DATED at Shorewood, Wisconsin this 28th day of July, 2023.

VILLAGE OF SHOREWOOD

Toya Harrell

Village Clerk

Should you have any questions or comments regarding any items on this agenda, please contact the Village Manager's Office at 847-2705. It is possible that members of and possibly a quorum of members of other governmental bodies of the municipality may be in attendance at the above stated meeting to gather information; no action will be taken by any governmental body at the above stated meeting other than the governmental body specifically referred to above in this notice. Upon reasonable notice, efforts will be made to accommodate the needs of all individuals.



Conservation Committee Minutes July 6, 2023 7:00 PM

1. Call to order

The meeting was called to order at 7:01 PM

Members present: Co-Chairs Erin Povak and Linda Frank, Joey Sprague, Marissa Meyer, Joshua Liberatore, Henry Tomasiewicz, Matt McGovern, Elisabeth Witt, Maggie Pipek, and Adelais Burkholder. After call to order: Charles Hagner (joined at 7:06pm), Meenal Atre (joined at 7:07pm).

Others present: Calvin Fitzgerald, Assistant Village Manager Chris Anderson.

Not present: Diego Murphy, currently one vacancy.

2. Consider approval of the meeting minutes

Mr. Tomasiewicz moved to approve the minutes, seconded by Mr. Liberatore and the motion carried 9-0.

3. Concerns from the Community

Ms. Povak discussed signs in the community that are available at Shorewood Press: Stop spraying Shorewood. Member of the community was moved to stop spraying pesticides on his yard. Ms. Frank clarified that a positive tone on these signs is important, not to be critical of those that do.

4. Staff Liaison Updates

AVM Anderson reported that the Village has been successfully matched to a graduate student in Urban and Regional Planning (undergrad in Civil Engineering) for the electrification of the police fleet feasibility study. He also informed the committee that due to construction in Village Hall starting Monday, July 10 and high demand for Village meeting space, there may be impacts to the meeting location, but should that occur, there would be ample notice to the group.

5. Review subcommittee document/breakout sessions in groups

Ms. Povak opened the discussion on getting into subcommittee groups to begin the conversations of streamlining. The groups split up to have their individual discussions about their goals relative to the 2023 initiatives. Groups are: Energy Efficiency and Sustainable Development, Biodiversity, and Waste Reduction and Resource Recovery. The Conservation Committee is also discussing a revised mission statement.

6. No Mow May Discussion: Perspective from Code Compliance/Associate Building Inspector

AVM Anderson discussed the Code Compliance inspector's reports of how notice procedures have gone post No Mow May since there has been an overwhelming amount of effort to provide notices to lawns out of compliance beyond the temporary suspension

of the code. Ms. Sprague discussed that the ultimate goal is to have native plants and flowers and No Mow May was meant to be a gateway activity. For future No Mow May campaigns, make sure that it is known when the suspension in enforcement ends. Ms. Sprague asked if the VMM articles strategy for providing good, better, best strategies on pollinator support. Ms. Pipek asked if acceptance of your grass being a mix of weeds, native grasses, etc. A workshop in the works to provide support and resources to offer instruction on pocket gardens of native plants that are effective on providing seeds for birds, pollen for bees, etc. Ms. Atre proposed if folks are thinking of participating next year, to provide them a free packet of clover seeds from a gardening store, for example.

7. Communication of Native Plant, Compost, and Rain Barrel workshop on July 18 at Hubbard Park

Ms. Povak mentioned the upcoming workshop headed up by Kae DonLeavy from the Shorewood Waters Project.

8. Subcommittee Reports

Mr. Hagner discussed a memo he drafted to speak to the upcoming Streetlight Replacement program. Blue light can disrupt sleep patterns and overall health of people. He is asking the committee to give guidance to the Village Board in the form of a letter asking them to minimize and control blue-rich lights, installing lighting with correlated color temperature of 3,000 Kelvins or lower, and to shield all lighting properly to minimize glare. The memo will come to the committee at the next meeting for a vote.

9. Upcoming Events, Member Topics & Suggestions

None.

10. Adjournment

Ms. Sprague moved to adjourn, seconded by Mr. Tomaszewicz. The motion to adjourn carried 11-0 and the meeting was adjourned at 8:07 PM.

Respectfully submitted by,

Chris Anderson
Assistant Village Manager

July 27, 2023

Ann McCullough McKaig
President
Village of Shorewood
3930 N. Murray Ave.
Shorewood, WI 53211

President McKaig:

In keeping with the Conservation Committee's mission to recommend policies, programs, and projects that help the Village meet its sustainability and conservation goals, the committee strongly urges the Village Board to consider retrofitting or replacing the street light fixtures in the business district for increased Dark Sky compliance, adopting one of the three options that Public Works Superintendent Dan Heyen outlined at the Board meeting on July 3, 2023.¹

On June 19, 2023, the Board approved the use of \$15,000 in ARPA funds to re-lamp the street light fixtures on Capitol Drive and Oakland Avenue with a warm yellow LED bulb. The Conservation Committee applauds this action. The Board also requested costs for retrofitting the light fixtures with shading to achieve better Dark Sky compliance.

Superintendent Heyen reported on July 3 that the current fixtures are 78.8% compliant with Dark Sky requirements, and he described three alternatives to improve the Dark-Sky compliance: (1) adding a skirt to shield the bulb and an upper light assembly to shield the decorative cut-outs at the top, which would provide 99.8% Dark Sky compliance; (2) replacing the light assembly; or (3) replacing the entire fixture, which would achieve 100% Dark Sky compliance. Superintendent Heyen said price quotes had been requested for the three alternatives. The estimates should be available for discussion at the Board meeting on August 7, 2023. It is anticipated that the least costly alternative will easily exceed \$100,000.

The Village's own newly updated commercial zoning code includes a subsection on commercial outdoor lighting (535-24J), the purpose of which is "to provide for adequate and safe lighting; to limit light spillover and glare onto adjacent properties, public streets, and the night sky; and to reduce bird injury and mortality from in-flight collisions with buildings."²

The subsection incorporates bird-friendly guidance from National Audubon, American Bird Conservancy, and the International Dark-Sky Association. Shorewood's code requires the following:

- For light fixtures to be located, aimed, or shielded so as to eliminate not only stray light trespassing across property boundaries but also light directed upward (535-24J[4]b)
- For exterior light fixtures that are not necessary for safety, building entrances, or circulation to be shut off automatically from midnight until 6 am (535-24J[6])
- For the correlated color temperature of any outdoor light source within the commercial and mixed-use districts not to exceed 2,200 Kelvins (535-24J[5])

¹ Village of Shorewood. 2023. "Update on Business District Street Lighting Dark-Sky Compliance," presentation to Village Board by Dan Heyen, Superintendent of Public Works, July 3, 2023, <https://www.villageofshorewood.org/AgendaCenter/ViewFile/Agenda/2057?html=true>

² Village of Shorewood. 2023. Shorewood Commercial Zoning Update, Adopted February 6, 2023. <https://www.villageofshorewood.org/DocumentCenter/View/10535/Commercial-Zoning-Update---ADOPTED-020623---ALL-UPDATES>

Since the Village has mandated these requirements for new commercial construction along Oakland and Capitol, we believe that the Village should hold itself to the same standards with respect to street lighting in the same business district.

Moreover, a 2015 review of the scientific literature suggested that levels of outdoor artificial light at night are a risk factor for breast cancer and that exposure at night suppresses melatonin secretion, increases sleep onset latency, and increases alertness. Chronic exposure can cause circadian misalignment, which may have negative effects on psychological, cardiovascular, and/or metabolic functions.³

This alone provides a compelling rationale for down-shielding and limiting light spillover and glare from street lights, especially considering the large and growing number of Shorewood residents who live along Capitol and Oakland. But artificial nighttime lighting and building glass also pose major risks to wild birds, especially migratory birds, as well as insects and other wildlife. Warm light color, already approved by the Board, together with down-shielding, will minimize these risks, as recommended by the US Fish and Wildlife Service.⁴

Many insects need a dark environment to procreate. Lightning bugs, for example, cannot “see” each other when light pollution is pronounced. Other environmentally beneficial insects are known to be attracted to blue-rich lighting, circling under it until they become exhausted and die.⁵

Most birds migrate at night. As they pass over cities, research and experience shows that they can become disoriented by bright artificial lights and skyglow, and that, in their confusion, they also often fly in circles, leading to exhaustion, and they collide with buildings or windows, leading to mortality. Excessive nighttime lighting can also lead to reflections on glass buildings and other structures that similarly cause confusion, often with fatal consequences.⁶ As the director of conservation and science at New York City Audubon puts it, light lures birds in and glass finishes them off.⁷

To reduce the threat posed to birds by artificial light at night, National Audubon launched Lights Out, a program that aims to persuade building owners and municipalities to turn off excess lighting during spring and autumn, when birds migrate. Down-shielding exterior lighting to eliminate both horizontal glare and light directed upward is one of nine actions recommended by Audubon’s Lights Out Program.⁸

In addition, the American Medical Association’s 2016 guidance for communities on selecting among LED lighting options recommended that all LED lighting should be properly shielded to minimize glare and

³ Cho, YongMin, Seung-Hun Ryu, Byeo Ri Lee, Kyung Hee Kim, Eunil Lee, and Jaewook Choi. 2015. “Effects of Artificial Light at Night on Human Health: A Literature Review of Observational and Experimental Studies Applied to Exposure Assessment.” *Chronobiology International* 32, no. 9: 1294–310. <https://pubmed.ncbi.nlm.nih.gov/26375320/>

⁴ US Fish & Wildlife Service, “Threats to Birds: Collisions—Nighttime Lighting” (web page), <https://www.fws.gov/story/threats-birds-collisions-nighttime-lighting>.

⁵ American Medical Association, “Human and Environmental Effects of Light Emitting Diode (LED) Community Lighting.”

⁶ FLAP (Fatal Light Awareness Program) Canada, “Why Do Birds Hit Buildings?” (web page), <https://flap.org/why-do-birds-hit-buildings/>.

⁷ Barnard, Anne. 2019. “The 9/11 Tribute Lights Are Endangering 160,000 Birds a Year.” *New York Times*, September 9, 2019. <https://www.nytimes.com/2019/09/09/nyregion/911-tribute-birds.html>

⁸ Audubon, “Lights Out: Providing Safe Passage for Nocturnal Migrants” (web page), <https://www.audubon.org/lights-out-program>

detrimental human and environmental effects, and that consideration should be given to utilizing the ability of LED lighting to be dimmed for off-peak time periods.⁹

To summarize: Down-shielding and limiting light spillover and glare from street lights will serve to lessen the harmful effects of exposure to artificial light on human health while also decreasing the threat posed by outdoor light to insects, migratory birds, and other wildlife. Because the Conservation Committee finds these facts to be compelling, we strongly urge the Village to adopt one of the three options that Superintendent Heyen outlined at the Board meeting on July 3, 2023.

Sincerely,

Linda Frank, Co-Chair

Erin Povak, Co-Chair

cc: Shorewood Village Board of Trustees

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⁹ American Medical Association. 2016. "AMA Adopts Guidance to Reduce Harm from High Intensity Street Lights." Press Release, June 14, 2016. <https://www.ama-assn.org/press-center/press-releases/ama-adopts-guidance-reduce-harm-high-intensity-street-lights>