

Lighting Ordinance



A lighting ordinance can ensure safe, aesthetically pleasing, and energy-efficient outdoor lighting that preserves views of the night sky and minimizes harm to species disturbed by artificial lighting.

Problems of Uncontrolled Lighting

Uncontrolled outdoor lighting causes a variety of problems, including:

- Glare;
- Light trespass;
- Wildlife Disruption;
- Energy waste; and
- Skyglow.

Glare

Bright light from unshielded and misaimed light sources can hamper vision, leading to car crashes and other accidents.

Light Trespass

Many people find excessive night lighting to be a nuisance. Light that crosses property lines can cause anything from mild inconvenience to bitter disputes between neighbors.

Wildlife Disruption

Artificial light, by mimicking sunlight during naturally dark hours, can disrupt the behavior of wildlife and plants. For example, a [2017 study](#) found that artificial lighting reduced nocturnal pollinator activity, which is essential for healthy ecosystems, by 62%.¹

Energy Waste

Lighting fixtures that use inefficient technology, are poorly targeted, or operate at unnecessary times waste energy. The [International Dark-Sky Association](#) estimates that 15 million tons of carbon dioxide are emitted in the United States each year to power residential outdoor lighting, and that at least 30% of this light is wasted by unshielded or poorly aimed fixtures.

Skyglow

Uncontrolled night lighting diminishes and obscures views of the natural night sky. At the turn of the 20th

century, most people could see a starry night sky from where they lived. A century later, 80% of the world's population (including 99% in Europe and the United States) lives under skyglow—the diffuse light seen over population centers—according to a [2016 atlas](#) of night sky brightness.²

Ordinances Can Minimize Problems

Municipalities can use lighting ordinances to ensure safe, aesthetically pleasing, and energy-efficient lighting that preserves views of the night sky and minimizes harm to species disturbed by artificial lighting. Ordinances can accomplish this by mandating or encouraging the use of shielded light fixtures, intelligent timing controls, improved technology (such as [LED lighting](#)), and other methods. Without a strong lighting ordinance and the ability (and willingness) to enforce it, a municipality cannot control and correct outdoor lighting problems.

Lighting ordinances do not necessarily hinder development; rather, they enhance development by preventing poor lighting practices.

Resources for Developing Ordinances

Pennsylvania Outdoor Lighting Council

The [Pennsylvania Outdoor Lighting Council](#) (POLC) is the authority on lighting issues in Pennsylvania. POLC offers a comprehensive collection of lighting-related resources, including:

- A [guide](#) for municipal officials, planners, code officers, and citizens to advocate for, create, adopt, and enforce an effective lightning ordinance in Pennsylvania. It outlines the necessary steps in the ordinance development process and includes detailed information about specific codes, provisions, and more.

¹ Knop, Zoller, Ryser, et al. "Artificial Light as a New Threat to Pollination," *Nature* 548 (2017).

² Falchi, Cinzano, Duriscoe, et al. "World Atlas of Artificial Night Sky Brightness," *Science Advances* 2.6 (2016).

- Three [model lighting ordinances](#) (zoning, subdivision and land development, and a stand-alone ordinance). POLC updates the models regularly to reflect advances in methodology and lighting technology.

For more information, see the POLC website at <http://www.polcouncil.org/>

International Dark Sky Association

The [International Dark Sky Association](#) (IDA) is a recognized international authority on lighting issues, specifically light pollution. It offers a somewhat shorter [guide](#) to enacting a lighting ordinance, as well its own [model ordinance](#).

For more information, see the IDA website at <http://www.darksky.org/>

Lighting Ordinances in Pennsylvania

Dozens of municipalities across Pennsylvania have adopted lighting ordinances. Below are links to ordinances for several of these municipalities. The ordinances are also listed as “Featured Library Items” in the online edition of this guide.

- [London Grove Township](#)
- [North Coventry Township](#)
- [Wallace Township](#)
- [Westtown Township](#)
- [West Whiteland Township](#)

The website [eCode 360](#) contains hundreds of local government ordinances from across the country. If a municipality has posted ordinances there, any lighting ordinance is likely to be included.

Resources at ConservationTools.org

To find experts and other resources, see the right column of the on-line edition at <http://conservationtools.org/guides/10>

Submit Comments

Help improve the next edition of this guide. Email your suggestions to the Pennsylvania Land Trust Association at aloza@conserveland.org. Thank you.

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