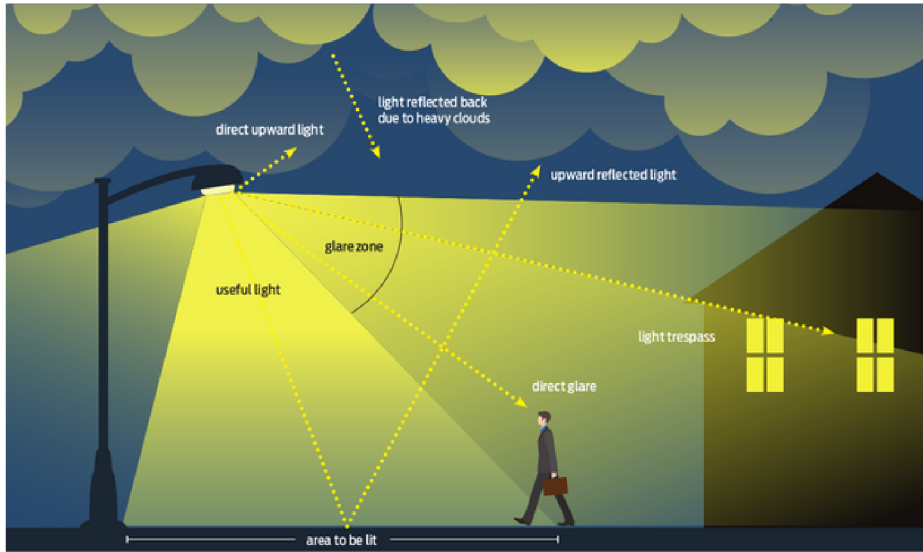


# LIGHT TO PROTECT THE NIGHT

Homeowners can create dark skies with the right lights!

Environmental Management & Resources Committee



Most of us have a fairly good understanding of common types of environmental issues like air and water pollution. However, light pollution may be a new term to many. Artificial light has adverse effects on humans, animals, and plant life. This problem stems from poorly designed light fixtures, which brighten all areas, instead of focusing on the desired ground area.

Light pollution is defined as the unwanted change of natural light levels in the environment due to effects of man-made light sources. Human activities are directly or indirectly responsible for this form of pollution.

According to the Sierra Club, birds and animals can be confused by artificial lighting, leading them away from familiar foraging areas and disrupting their breeding cycles. And the photosynthetic cycles of deciduous trees (those that shed their leaves in the fall) have been shown to be disrupted due to the preponderance of artificial nighttime lights. Another environmental impact of excessive use of artificial light is, of course, energy waste. The International Dark-Sky Association computes that unnecessary nighttime lighting wastes upwards of \$1.5 billion in electricity costs around the world each year while accounting for the release of more than 12 million tons of carbon dioxide, the leading greenhouse gas, into the atmosphere.

Luckily, unlike other forms of pollution, light pollution is reversible and you can make a difference!

## Negative Impacts of Light Pollution

A growing body of evidence links the brightening night sky directly to measurable negative impacts including:

- Increasing energy consumption
- Disrupting the ecosystem and wildlife
- Harming human health
- Effecting crime and safety

### Brighter Does Not Mean Safer

Outdoor lighting is intended to enhance safety and security at night, but too much lighting can actually have the opposite effect. A dark sky does not necessarily mean a dark ground. Smart lighting that directs light where it is needed creates a balance between safety and starlight.

It's important to take into consideration which areas of your property need lighting, whether for esthetics or security. The goal is to only light the areas necessary, and when necessary. Please check the lighting around your property at night sometime. If your lighting fixture is causing light to shine onto neighboring properties, the lights should be redirected so that light does not "trespass." This includes solar light fixtures.

<b>LIGHT TO PROTECT THE NIGHT</b>				
<b>USEFUL</b>		<b>ALL LIGHT SHOULD HAVE A CLEAR PURPOSE</b>	Before installing or replacing a light, determine if light is needed. Consider how the use of light will impact the area, including wildlife and the environment. Consider using reflective paints or self-luminous markers for signs, curbs, and steps to reduce the need for permanently installed outdoor lighting.	
<b>TARGETED</b>		<b>LIGHT SHOULD BE DIRECTED ONLY TO WHERE NEEDED</b>	Use shielding and careful aiming to target the direction of the light beam so that it points downward and does not spill beyond where it is needed.	
<b>LOW LIGHT LEVELS</b>		<b>LIGHT SHOULD BE NO BRIGHTER THAN NECESSARY</b>	Use the lowest light level required. Be mindful of surface conditions as some surfaces may reflect more light into the night sky than intended.	
<b>CONTROLLED</b>		<b>LIGHT SHOULD BE USED ONLY WHEN IT IS USEFUL</b>	Use controls such as timers or motion detectors to ensure that light is available when it is needed, dimmed when possible, and turned off when not needed.	
<b>COLOR</b>		<b>USE WARMER COLOR LIGHTS WHERE POSSIBLE</b>	Limit the amount of shorter wavelength (blue-violet) light to the least amount needed.	

ALCA Rules & Regulations specify that all outdoor lighting needs to be limited to building access areas and use of low-level landscape illumination. Lighting fixtures must be shielded to prevent intrusion of light and glare onto neighboring properties and roads. New lighting plans need to be approved by the Compliance Officer prior to installation. A no-fee permit is required for new building and additional or replaced lighting on existing properties.

- The use of High Intensity Discharge (HID) area lighting or similar yard lighting is prohibited.
- All lamps shall be frosted or coated, except for some shielded fixture types
- Lighting for paths and drives shall be by low-wattage, low-mount border fixtures
- Constant lighting past 12:30 a.m. is prohibited except for dusk to dawn lighting where shielded and directed completely downward onto the ground.