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Douglas County residents value and appreciate the ability to enjoy views of dark night skies. Outdoor lighting from residences, business, parks, streets, and many other sources can create light pollution (wasted light) and degrade the darkness of the night sky. For this reason, the 2040 Douglas County Comprehensive Master Plan (2040 CMP) encourages the use of lighting fixtures and techniques that minimize light pollution and protect views of the night sky. County staff reports to the Board of County Commissioners will include assessments of how applications for new development are consistent with the 2040 CMP.

This guide is intended to be a resource for new and existing neighborhoods to promote and protect dark skies at the community level. Exterior residential lighting standards or best practices may be integrated into private property covenants that are enforced by a special district or homeowners association. This will allow for review and enforcement at a neighborhood level as opposed to a one-size-fits-all approach for lighting.

Homeowners associations may encourage their residents to audit current exterior lighting. The International Dark-Sky Association (IDA) provides excellent information on how to voluntarily reduce light pollution and trespass while still providing enough light to live, work, and see. Below are some best practices from IDA's web pages at www.darksky.org/our-work/lighting/.

To minimize the effects of light pollution, lighting should:

- Only be on when needed
- Only light the area that needs it
- Be no brighter than necessary
- Minimize blue light emissions
- Be fully shielded (pointing downward)

A good place to start is by asking the following questions while evaluating or reviewing outdoor lighting. (For an overview on lighting, see IDA's Lighting Basics web page.)

- Does the area really need to be lit? If so, for what purpose? At what brightness?
- Do any of the fixtures emit light above 90 degrees?
- Is light trespass (light falling where it is not intended, wanted, or needed) an issue?
- Is glare (excessive brightness that causes visual discomfort or difficulty seeing) an issue?

Depending on the answers above, the following may apply:

- Don't light an area if it's not needed.
- Turn off the lights when not in use.
- To save energy costs, don't use excessive amounts of illumination.
- Use timers, dimmers, and motion sensors whenever possible.
- Use only "full cut-off" or "fully shielded" lighting fixtures. That means no light above the 90-degree angle. Fully shielded lighting can be purchased and some existing fixtures may be retrofitted.
- Use energy-efficient lighting sources and fixtures.
- Only use lighting sources with correlated color temperature (CCT) no higher than 3000K. Most lighting products provide this information on package labels.

These recommendations can improve the quality of outdoor lighting by minimizing glare, light trespass, skyglow and energy waste, while improving the efficiency and ambiance of outdoor lighting.

Exterior Residential Lighting Guidelines

Homeowners associations or special districts could employ exterior lighting design guidelines through covenants reviewed by an architectural review committee to protect dark skies. Below are sample design guidelines to control exterior lighting.

Sample HOA Design Guidelines for Exterior Lighting

The homeowners association (HOA) has standard rules for the type of lighting fixtures homeowners can install on the exterior of the house. These include the requirement that the light source must be shielded.

External lights shall be shielded or hooded and must be located and constructed so that they do not create a nuisance or hazard. The lighting footprint must project downward and cannot project beyond the property boundaries. Fixture locations must be shown on the elevation plans. No fixture may be placed more than a maximum height of 10 feet above the adjacent walking surface. Catalog sheets or photographs depicting the proposed fixture are required for review and approval prior to installation.

Acceptable exterior lighting may include the following:

- **Concealed Light Source:** The light bulb shall not be visible from the sides of the light fixture. The opacity of the fixture shall be reviewed on a case-by-case basis.
- **Floodlights:** A canopy-type floodlight cover, of an approved color, that shields the light source is acceptable provided the light is directed straight down.
- **Motion Detectors:** If lights are to be on the sides or rear of a structure, motion detectors must be used. The automatic light durational setting must not exceed five minutes and the sensitivity to movement must be properly adjusted so as not to create an annoyance.

Any fixture that fails to meet the above specifications must be replaced prior to final inspection.

At any time, the HOA may evaluate unduly bright lights that create a nuisance to adjacent owners or lighting complaints received. Safety considerations will be balanced against aesthetic/nuisance considerations in applying these restrictions.