

**“A starry sky undimmed by the glare of civilization is as much a part of the natural experience of the valley as [is] a perfect view of the Grand Teton on a cloudless day.”** TVN, 5/3/12

## **City of Driggs’ Outdoor Lighting Standards**

*The City has determined that light pollution is not the inevitable side-effect of progress, but is instead indicative of wasteful, harmful, and ineffective outdoor lighting. Thus, it has decided to pursue what is known as a dark-sky policy—this is not just about starry nights, but addresses public issues related to visibility and safety, economic vibrancy, property rights, environmental health, and resource efficacy.*

*Accordingly, in early 2011 a citizen lighting committee was appointed to research and draft community-wide lighting standards likely to provide significant public benefits. After a public workshop and hearings, the committee’s recommended ordinance was approved by the Planning Commission, and in September 2012 by the Driggs City Council (Ordinance #333-12), to become effective March 19, 2013. Below is a summary of the regulatory objectives, the lighting problems addressed, and the regulatory solutions provided by the Ordinance.*

### **Regulatory Objectives**

1. Public safety: require visually effective, more-useful light; minimal glare and distraction.
2. Environmental health: avoid circadian impacts of light on humans, wildlife, and vegetation.
3. Property rights: allow for enjoyment and use of private property, free of trespass and sky-glow pollution.
4. Economic development: protect the starry nights and outdoor experiences so attractive to residents (to live and work) and to tourists (to linger and play); for the Teton Valley to become a favorite “dark-sky” destination of astronomers, vacationers, and night dreamers.
5. Resource conservation: facilitate conservation of nonrenewable fuels, air, and water resources associated with electrical generation by encouraging efficient applications of outdoor lighting.
6. Community values: contribute to “outdoor recreation,” “rural character,” “affordable living,” and “wildlife.”

### **Fundamental Lighting Problems**

**Glare.** This is what blinds the eye’s retina as it adapts to the brightest light source, meaning one’s surroundings become darker and less visible. Even worse, the effects of glare become more disabling with age, which is why the elderly often are unable to drive at night. Typically, a light that causes glare is psychologically associated with good lighting, whereas it is just the opposite—glare reduces visibility and the usefulness of the light.

**Excessive intensity.** The effects are similar to glare, as the retina is slow to adjust to a variety of light levels. But even worse, the eye is limited in its ability to resolve objects beyond a determined range of light. Thus, as the retina adjusts to illuminated objects of greater brightness, peripheral objects in the field-of-view (of lesser brightness) will appear darker. And that explains the counter-intuitive inference that additional light can actually be detrimental to public safety.

**Wasted light.** Upward, misdirected, and excessive light add to natural-resource depletion, plus the massive air and water pollution which accompanies coal-fired electrical generation.

**Trespass.** This relates to the imposition and intrusion of unwanted light projected upon private property; my right to use and enjoy my property as I wish—including viewing the stars; averting spillover impacts across property boundaries. Analogous to air and water as public goods, light pollution transcends property lines, and therefore is a legitimate governmental interest.

**Color of light.** The shorter-wave, blue component of daylight explains why the sky is blue. But that blue spectrum at night, increasingly common in fluorescent and LED lights, is proving harmful to human health and contributes disproportionately to sky-glow.

**Upward, skyward light.** Dark skies are a diminishing resource. But their loss is not just about obscured constellations and frustrated astronomers. Skyward light disorients wildlife and inhibits chemical air-cleansing reactions. Sky-glow also severs our connection with a historically powerful source of scientific discovery, human perspective, spiritual inspiration and reflection.

**Circadian effects.** Night lighting disrupts the natural ecology by interrupting normal cycles of daily and seasonal darkness, to the detriment of wildlife, vegetation, and human endocrine function.

## Regulatory Solutions

The remedies for bad *outdoor* lighting are exactly analogous to good *indoor* lighting that we already, instinctively and routinely, practice: direct the light only where it is useful; shade (shield) the bulb to avoid glare; do not waste it; and shun harsh “cool-white” and “daylight” colors. In a nutshell, outdoor light should be used only where needed, when needed, as little as needed, and in “warm” color-tones.

- The ordinance’s regulations are initially applicable only to future-installed fixtures and lamps; but all existing fixtures must conform to all provisions no later than ten years after ordinance adoption.
- Lighting fixtures must direct all light downward and, depending upon the zone, comply with quantitative illumination limits. Flexible exceptions are granted for public-safety, inconsequential, occasional, temporary, sports, and holiday lighting; also where warranted for property security.
- Light trespass across property boundaries is severely limited—but includes a simple height-distance rule, and allows for adjacent-property agreements among neighbors.
- Signs must be downwardly lit, internally lit signs are allowed, and the intensity of both is limited.
- The color spectrum of lamp-light cannot be bluer than that of current halogen lamps, and should approximate that of current incandescent lamps.
- Furthermore, the proposed regulations incorporate simple and sensible adjustments to current lighting practices that are likely to make an immediate difference.
- Curfews are imposed on unnecessary parking-lot illumination after 10 p.m. or an hour after close-of- business, whichever is later; and after 11 p.m. for sign illumination.
- Existing, adjustable floodlights and spotlights must be rotated downward to reduce sky-glow and trespass, and away from roadways to avoid glare. Fixtures that compromise public safety or constitute a public distraction or nuisance are prohibited.
- Existing fixtures must conform when included in a new development project or change of use.
- A Public Lighting Policy has been adopted by the City of Driggs consistent with dark-sky objectives.

## Resources & Credits

---

- To view the full Ordinance, visit the City’s website at [www.driggs.govoffice.com](http://www.driggs.govoffice.com) or click [here](#)
- Extensive background information about dark-sky issues and remedies are posted at the National Park Service website: [www.nature.nps.gov/night/index.cfm](http://www.nature.nps.gov/night/index.cfm). Be sure to investigate the left-side menus listed under “Night Skies.”
- A video presentation of lighting concepts, also describing circadian impacts of “blue” light on human health, is at: [www.youtube.com/watch?v=F3HDNz4eXw4&feature=email](http://www.youtube.com/watch?v=F3HDNz4eXw4&feature=email).
- Special thanks to Carl Jordan, member of the City Outdoor Lighting Committee, for preparing this information.