



Ten Principles for Responsible Lighting in Wilderness

Artificial light at night, and spinning mirrors during the day, can cause big problems for both people and nature. It disrupts sleep, increasing the risks of Alzheimer's, disorients pedestrians and drivers, wastes energy, harms animals and hides the beauty of the stars. Light pollution happens when too much light shines when and where it's not needed, affecting wildlife, ecosystems and our health. Unnecessary artificial light strongly affects how residents and visitors experience Wilderness and diminishes its unique character that so many people cherish.

The good news is, we can fix this by making simple changes, like using smarter lighting, pointing lights downward, lighting up the target area only, turning them off when not needed or using motion sensors, and avoiding bird-deterrent mirrors altogether.

By working together, and following 10 simple principles, we can preserve Wilderness' natural character, protect wildlife, improve health and enjoy clear, starry skies once again.

1. Assess the Need for Lighting

Before adding or upgrading lights, ask if they are truly necessary.

2. Use the Least Amount of Light

Keep brightness at the lowest level needed for safety and function.

Businesses should follow the George Municipality's Outdoor Advertising By-Law of 2023, Section 8.

https://www.george.gov.za/wp-content/uploads/2023/04/Outdoor-Advertising-bylaw_Promulgated-110823-1.pdf

3. Control Light Timing

Install timers, dimmers or motion sensors so lights are on only when needed.

4. Minimize Blue Light

Choose warm-colored lights (2200K–2700K) and avoid blue and violet wavelengths, which are more disruptive to wildlife and human sleep patterns.

5. Shield and Direct Light

Choose fully shielded fixtures to point lights downward and prevent spillover into the sky or surrounding areas. Avoid unshielded street lights, security lights, bird deterrent mirrors and neon advertising. Think about the people living uphill and downhill from the light and make sure the light or mirrors don't shine into their homes or outdoor spaces.

6. Limit the Area Lit

Focus light only on the areas that need it and avoid lighting large spaces unnecessarily. Reduce light spread to protect natural areas.

7. Promote Energy Efficiency

Select 'warm light' LEDs that comply with all other principles.

8. Collaborate and Educate

Engage with communities, neighbors, and policymakers to promote awareness about light pollution, and ask affected people whether lights would bother them. Work with stakeholders to adopt guidelines and share best practices.

9. Plan for Flexibility

Design lighting systems that can adapt to different seasons, activities and ecological needs. Smart lighting systems should respond to changing social and environmental conditions.

10. Protect Sensitive Areas

For national parks, wetlands, coastlines and migratory routes, use specialized low-impact lighting or avoid lighting altogether to preserve nature.

By applying these principles, urban planners, designers, and architects can create spaces that are safe, functional, and environmentally friendly while preserving dark skies and ecosystems.