



INTERNATIONAL DARK-SKY ASSOCIATION

International Dark-Sky Association
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August 16, 2021

Amy Fowler, Chair
Salt Lake City Council
PO Box 145476
Salt Lake City, UT 84114-5476

Re: Street Lighting Master Plan

Dear Chair Fowler and Councilmembers:

The International Dark-Sky Association (IDA) is the recognized authority on light pollution and is the leading organization combating light pollution worldwide. We advocate for a future in which the night sky, filled with stars, is celebrated and protected around the world as shared heritage benefitting all living things. Protecting nighttime darkness and promoting quality outdoor lighting practices have distinct benefits for wildlife, human health and wellbeing, energy security, and public safety.

Our vision is encapsulated in Values-Centered Outdoor Lighting (<https://www.darksky.org/our-work/lighting/values-centered-outdoor-lighting/>), a resolution adopted by our Board of Directors in January 2021. These values are in turn described by the Five Principles for Responsible Outdoor Lighting (<https://www.darksky.org/our-work/lighting/lighting-principles/>) jointly promoted by IDA and the Illuminating Engineering Society (IES):

1. All light should have a clear purpose
2. Light should be directed only where needed
3. Light should be no brighter than necessary
4. Light should be used only when it is useful
5. Use warmer color lights whenever possible

IDA supports the draft Street Lighting Master Plan that currently under consideration by the Salt Lake City Council. We find it to be consistent with both Values-Centered Outdoor Lighting and the Five Principles. It contains the best practices that we encourage for all jurisdictions, and if adopted it would set a new standard for street lighting plans for large cities.

In particular, the IDA commends specific policy elements of the plan that give it flexibility while not compromising on core principles. These elements include:

- A flexible approach to allow illumination levels below IES recommendations that encourages dimming strategies based on community engagement and that benefits both dark skies and wildlife (*Principles 3 and 4*).
- Use of zones for maximum permissible Correlated Color Temperature (CCT) values that limit 3000 kelvin (K) lighting to commercial zones; sets 2700 K as the maximum

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for residential zones without commercial elements; and establishes 2200 K as a maximum in open space and the industrial zones, which happen to be near sensitive natural resources in and near the city (*Principle 5*).

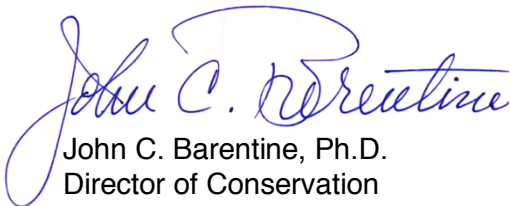
- Inclusion of policy goals to minimize impacts on wildlife and to balance energy efficiency with human and environmental health needs (*Principle 1*).
- A commitment to shielding decorative street lighting to eliminate uplight (*Principles 1 and 2*).
- Specific commitment to reduce the obtrusive effects of light at night, including light trespass onto private property, light pollution affecting the region, and glare that reduces visibility and nighttime safety and comfort (*Principle 2*).

Municipal lighting systems represent a large component of the light pollution generated by cities in the United States. This plan, when implemented, will reduce light pollution from Salt Lake City and make it a leader in this field.

We have experience with the successful LED streetlight conversion of Tucson, Arizona, that measurably decreased the city's light emissions (see <https://www.sciencedirect.com/science/article/abs/pii/S0022407317308178>). Appropriate technology and lighting design approaches are available to upgrade street lighting systems, reduce energy consumption, and limit the adverse impacts of excessive artificial light at night. The Salt Lake City plan goes a step further to incorporate 2200 K lighting in some areas, and offers flexibility to choose lower CCTs in residential and commercial areas. This plan would put Salt Lake City at the vanguard of outdoor lighting best practices among world municipalities.

Given the above considerations, we urge the City to adopt the Street Lighting Master Plan.

Yours sincerely,



John C. Barentine, Ph.D.
Director of Conservation

cc: Salt Lake City Council
Hon. Erin Mendenhall, Mayor