



COUNCIL POLICY C-ES06

Dark Sky Outdoor Lighting

Prepared By: Environmental Services
 Effective Date: October 8, 2013
 References: Procedures C-ES06-P1
 Function: Infrastructure Management

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PURPOSE

The purpose of this policy is to ensure that all new outdoor lighting installations and luminary replacements on County-managed lands and on private lands in Parkland County are Dark Sky-compliant.

POLICY STATEMENT

Parkland County Council recognizes that light pollution is the result of artificial light, radiating upward and outward, which decreases visibility at night and wastes energy. Light pollution has been shown to disrupt wildlife, ecological balance, and has been linked to negative consequences in human health. As a result, Parkland County is a Dark Sky-friendly community that employs energy efficient Dark Sky-compliant exterior lighting technologies for all new and retrofitted open space illumination on private and County managed lands.

DEFINITIONS

1. "County-managed lands" refers to lands owned, leased, or managed by Parkland County.
2. "Cutoff Optics" refers to luminaries that do not emit more than 2.5% of total light produced above the horizontal plane.
3. "Full Cutoff Optics" refers to luminaries that do not allow any light dispersion above the horizontal plane, and whose lamp (bulb) is recessed fully within the housing of the fixture itself.
4. "Horizontal Plane" the apparent intersection where the earth meets the sky, also referred to as the apparent horizon.
5. "Industrial Dark Sky Street Lighting Compliance Requirements," in industrial and commercial areas, Dark Sky compliant refers to luminaries that have the following characteristics:
 - a. One of the following designations:
 - i. "Dark Sky Certification" granted by the International Dark Sky Association (IDA)
 - ii. "Full Cutoff Optics" - as designated by the manufacturer.
 - b. Installation: Fixtures shall be oriented as to direct all possible light below the horizon.
 - c. That the light source be of the Light Emitting Diode (LED) Type or of the High Pressure Sodium Type (HPS).

6. "Private Lands" refers to privately-held land located within Parkland County's boundaries.
7. "Private Lighting Dark Sky Compliance Requirements" In privately owned industrial, commercial, institutional, and residential lands Dark Sky compliant refers to luminaries that have the following characteristics:
 - a. One of the following designations:
 - i. "Dark Sky Certification" granted by the International Dark Sky Association (IDA)
 - ii. "Full Cutoff Optics" as designated by the manufacturer
 - iii. "Cutoff Optics" as designated by the manufacturer.
 - b. Installation: Fixtures shall be oriented as to direct all possible light below the horizon.
8. "Residential Street Lighting Dark Sky Compliance Requirements" In residential areas Dark Sky compliant refers to luminaries that have the following characteristics:
 - a. One of the following designations:
 - i. "Dark Sky Certification" granted by the International Dark Sky Association (IDA)
 - ii. "Full Cutoff Optics" as designated by the manufacturer.
 - b. Installation: Fixtures shall be oriented as to direct all possible light below the horizon.
 - c. That the light source be of the Light Emitting Diode (LED) Type or of the High Pressure Sodium Type (HPS).

SCOPE

1. This policy applies to all new exterior illumination installations on private and County-managed lands approved by Parkland County after January 1, 2014, including new street lighting installations.
2. This policy applies to all exterior lighting luminary replacements undertaken on private and County-managed lands after January 1, 2014.

MANAGEMENT RESPONSIBILITIES

The General Manager of Infrastructure Services is responsible for the overall implementation of this Policy. Planning and Development Services and Engineering Services are responsible for ensuring that all new applications for development and renovations comply with this Policy. Facilities Services is responsible for ensuring that all new outdoor lighting installations at Parkland County facilities comply with this Policy. Environmental Services is responsible for reviewing and monitoring this policy.

STANDARDS

1. For roadways located within industrial and commercial areas, arterial, collector and local non-residential roadways: all luminaries providing street lighting shall meet the "Industrial Dark Sky Street Lighting Compliance Requirements" as described in this policy.
2. For roadways located within residential areas: all luminaries providing street lighting shall meet the "Residential Street Lighting Dark Sky Compliance Requirements" as described in this policy.
3. For roadways intersecting highways: all luminaries providing street lighting shall meet the "Industrial Dark Sky Street Lighting Policy Requirements" as described in in this policy, unless otherwise specified by Alberta Transportation.
4. All new lighting installations and luminary replacements undertaken on private lands shall meet the "Private Lighting Dark Sky Compliance Requirements" as described in this policy.

5. All new lighting installations and luminary replacements undertaken on County managed lands (excluding street lighting) shall meet the “Private Lighting Dark Sky Compliance Requirements” as described in this policy.
6. Any luminary lawfully installed prior to the adoption of this policy shall be grandfathered. In the case that a grandfathered luminary is to be removed, repaired or replaced for any reason, Infrastructure Services shall see that the luminary comply with this policy.

EXCEPTIONS

1. Businesses and farms may be granted an exemption from this policy under the following special conditions:
 - a. A demonstrated need for lighting as a result of night time operations: for the purpose of ensuring personnel and equipment safety
 - b. A demonstrated need for lighting as a result of a security issue: i.e to operate security cameras
 - c. A report outlining the need for additional lighting prepared by a certified lighting engineer
2. For developments that occur in phases, the type of street lighting installed in phase 1 shall also be consistently installed in all other phases of the development.