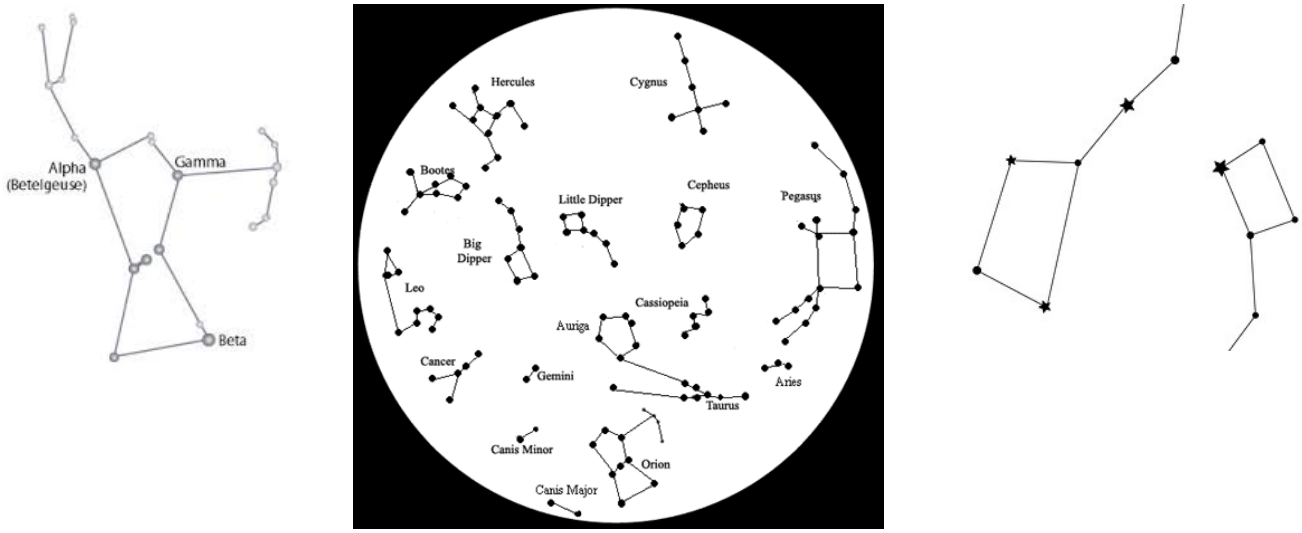
Department of Community Services
Land Use Planning Division
http://www.multco.us/landuse

1600 SE 190th Avenue, Portland Oregon 97233-5910 • PH. (503) 988-3043 • Fax (503) 988-3389

STAFF REPORT TO THE PLANNING COMMISSION
FOR THE
HEARING ON JUNE 6, 2016

PROPOSED DARK SKY LIGHTING REQUIREMENTS

CASE FILE: PC-2013-3056



SECTION 1. INTRODUCTION TO THE DARK SKY CONCEPT

A dark sky is one of the many qualities that set rural areas apart from urban and suburban communities. Outdoor lighting ordinances with the primary goal of reducing glow in the night sky are commonly referred to as "dark sky" ordinances. In 2010, USA Today estimated that 300 U.S. counties, cities and towns had adopted dark sky legislation, with popularity for such solutions gaining support from a wide range of stakeholders including conservationists, builders, planners and the military.

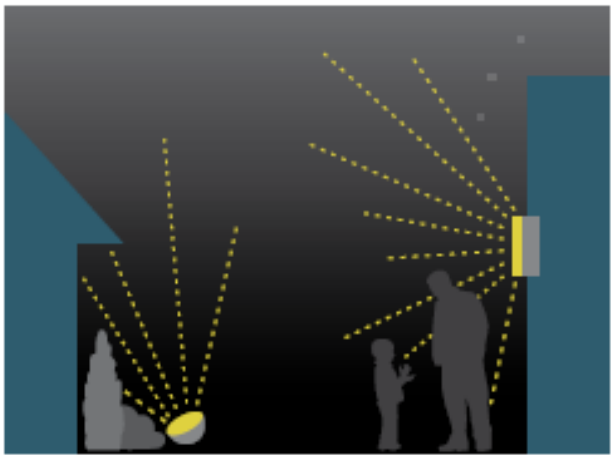
Existing County land use codes only require dark sky lighting in specific geographical areas. In October 2013, the Dark Sky regulatory concept was first introduced to the Planning Commission, which directed staff to research more aggressive measures to address light pollution. The proposed code language offers a more holistic approach by applying dark sky requirements to all zoning districts in unincorporated Multnomah County. Previous Planning Commission Work Sessions on this project were held October 7, 2013; June 2, 2014; December 1, 2014 and March 7, 2016.

Staff Contact: Adam Barber

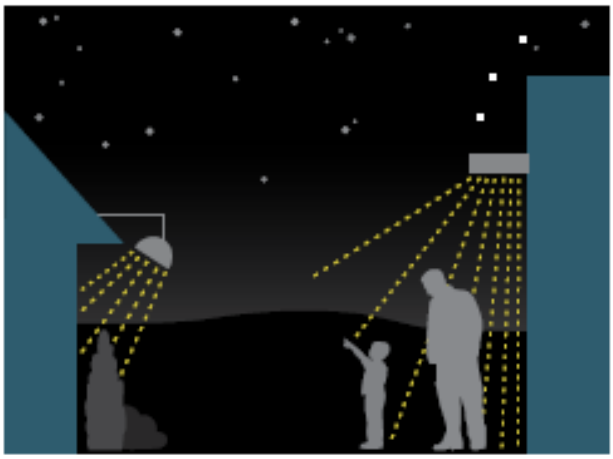
SECTION 2. DARK SKY ORDINANCE - WHY DO IT?

Preservation of the Night Sky

Light pollution was first raised as an issue in the 1970s by astronomers who began to notice a degradation of the night sky. Growth and light pollution from excessive outdoor lighting is diminishing the view of the stars in and around developed areas and many jurisdictions have adopted anti-light pollution laws. Light pollution from a community can travel over 100 miles from the source and the application of the Dark Sky concept can provide surprisingly widespread benefits. While excessive light may cause a nuisance to others, it also wastes electricity, results in unnecessary emissions of greenhouse gases, decreases the quality of ambient lighting and safety, and can have negative effects on the health of humans and wildlife. The Dark Sky concept promotes a thoughtful approach to outdoor lighting design.



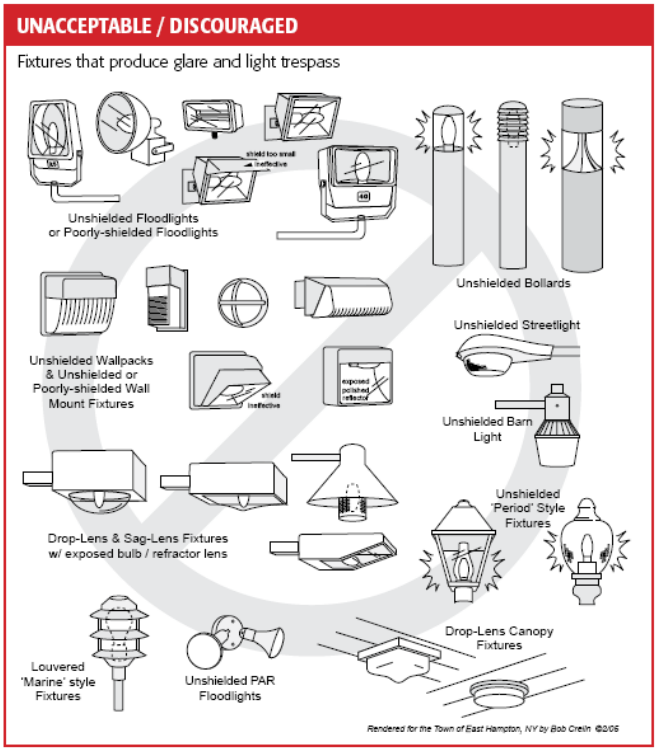
Unshielded fixtures create glare and waste light.

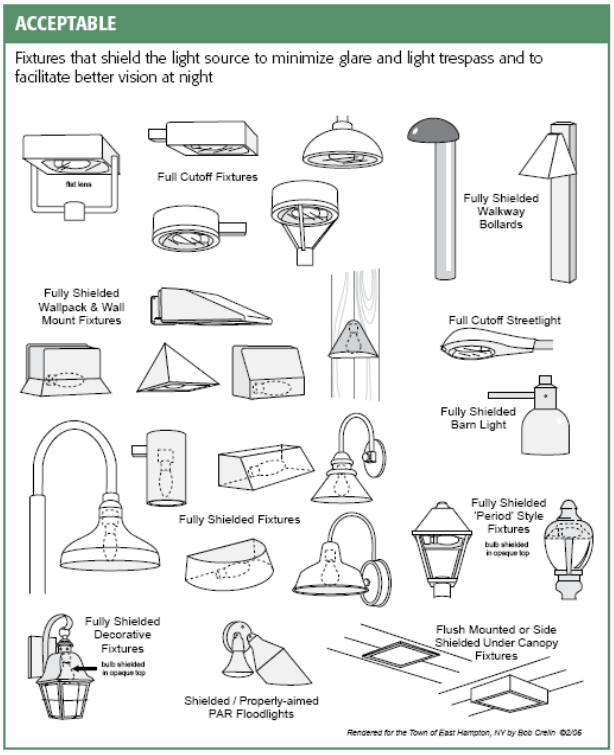


Use fully shielded fixtures, direct lights downward and not above the horizontal plane of the fixture.

Better Lighting Means Better Neighbors

Outdoor lighting, when appropriately directed, can improve visibility and safety while minimizing energy use, operating costs, and glare. In contrast, improperly aimed lights can shine onto nearby properties creating conflict with neighbors, drivers, and pedestrians. A general rule of thumb is if the bulb is visible from a distance, it's contributing to glare and sky glow. With Dark Sky lighting, only the intended area is illuminated.





Impacts on Human Health

Excessive light at night negatively impacts many areas of human health. Bright points of light from poorly designed lighting can produce a condition known as “disability glare,” which temporarily impairs vision and can cause us to avert our eyes from the veil of light being scattered across our retinas.

The 24–hour day/night cycle, known as the circadian clock, affects physiologic processes in almost all organisms. Studies show disruption of these rhythms can result in insomnia, depression and cardiovascular disease. In June 2009, the American Medical Association adopted resolutions that support reducing light pollution and glare and advocate for use of fully shielded outdoor lighting because of the negative health effects caused by light pollution.

Impacts on Wildlife



Studies suggest that artificial night lighting has negative effects on a wide range of wildlife, including amphibians, birds, mammals, insects and even plants. Light pollution disorients migratory birds, disrupts mating behavior of frogs and interferes with predator/prey relationships. Since the eyes of nocturnal animals have evolved for foraging in low-light conditions, small changes in illumination can alter their relationship with prey species. Light fixation is also a bird hazard that kills thousands of birds in urban areas every year.

Safety

Brighter light does not necessarily mean safety. Bright, glaring lights that illuminate nighttime events or locations can actually decrease the security of the sites. Excessively bright lighting can create a sharp contrast between light and darkness, making the area outside the light nearly impossible to see. Most property crime is still committed during the day, or inside lit buildings. A safe environment involves shielding lighting for roadways, parking lots, homes, businesses and landscapes, increasing visibility and decreasing distractions, such as glare.



International Dark-Sky Association - Glare can create public health hazards, including those associated with unsafe driving conditions





Improperly shielded lighting reduces visibility and creates glare. The image on the right shows how residents can improve the visibility of their stairs, entrances and walkways by using properly shielded, downward directed outdoor lighting.





Economic Case for a Lighting Ordinance

According to the International Dark Sky Association, inappropriate outdoor lighting in the US results in wasted energy amounting to over three Billion dollars a year. This equates to 21 million tons of carbon dioxide which would need to be offset by planting 875 million trees annually[i]. Unshielded fixtures typically waste about 30% of their energy. When lighting is used only where needed, money that would otherwise be spent on the electric bill can instead be spent on other things, which is good for property owners and good for the economy.

SECTION 3. WHAT ARE OTHER JURISDICTIONS DOING?

Table 1 highlights Dark Sky lighting thresholds used by other jurisdictions in Oregon, in the Northwest, across the US and internationally. This is not intended to be an exhaustive list and represents a random sampling of ten approaches which fall into the following general categories:

- **All lights installed after a certain date must be dark sky compliant.** This approach is not ideal. Installation of an exterior light fixture does not always involve a permit and staff will not always have a way to verify date of installation.

- **All lights installed <u>or replaced</u> after a certain date must be dark sky compliant.** This is a more aggressive approach by including replacement lighting. This model is problematic for the same reason listed in the previous threshold, particularly for replacement lighting.

- **All existing lights on a property need to be made dark sky compliant by a certain date.** This is the most aggressive approach but is not possible in Oregon due to retroactive law restrictions which are discussed further in Section 4.

Table 1. Selection of dark sky lighting applicability thresholds used by other jurisdictions.

	Jurisdiction or Group	Threshold for when dark sky fixtures must be used
1	Joint International Dark-Sky Association – Illuminating Engineering Society Model Lighting Ordinance (June, 2011)	…all outdoor lighting installed after the date of effect of this Ordinance shall comply with these requirements. This includes, but is not limited to, new lighting, replacement lighting, or any other lighting whether attached to structures, poles, the earth, or any other location, including installed by any third party.
2	Ashland, Oregon 	<u>Outdoor Lighting</u>. Section 18.4.4.050 establishes standards for outdoor lighting, and applies to all new outdoor lighting installed or replaced after *[effective date]*.
3	Dundee, Oregon 	These Standards shall apply to all new single family residential, multifamily residential, commercial, industrial and public outdoor lighting. Nothing in these Standards shall apply to any residence existing at the time of adoption of these Standards… …When an existing fixture (excluding replacement bulbs) is replaced in any multi-family residential, commercial, industrial or public development, the replacement fixture shall meet the requirements of these Standards… …If a nonconforming use or structure has been abandoned for more than twelve months, or if the nonconforming use of the structure changes, all outdoor lighting on the property must be brought into compliance before reoccupation or reuse.
4	Island County, Washington	The following Outdoor Lighting Standards shall apply in all zones… Lighting fixtures must be shielded, hooded and oriented towards the ground so

		that direct rays are not visible past the property boundaries and do not shine into the night sky… …Existing Lighting Fixtures installed prior to the effective date of this Chapter are exempt for a period of three years from the date of enactment of this Chapter, unless: (i) The Fixture became inoperative except for bulb replacement; or (ii) The Fixture can be retrofitted at the time of bulb replacement to come into compliance with this Code.
5	Napa County, California 	All exterior lighting shall be shielded or recessed such that the light source is not visible from off-site.
6	Ketchum, Idaho 	**1.3 Scope -** All exterior lighting installed after the effective date of this Ordinance in any and all zoning districts in the City of Ketchum shall be in conformance with the requirements established by this Ordinance and any other applicable ordinances. All existing lighting installed prior to the effective date of this Ordinance in any and all zoning districts in the City of Ketchum shall be addressed as follows: a. All existing lighting located on a subject property that is part of an application for a City of Ketchum Planning Department Design Review, Conditional Use, or Subdivision Permit, or Building Permit is required to be brought into conformance with this Ordinance. Conformity shall occur prior to issuance of Certificate of Occupancy, Final Inspection, or Final Plat Recordation, when applicable. For other permits, the applicant shall have a maximum of thirty (30) days from date of permit issuance to bring the lighting into conformance. b. All existing exterior commercial lighting that is not in conformance with this Ordinance shall be brought into conformance with this Ordinance within twelve (12) months from the date of adoption of this Ordinance, by June 30, 2000. c. All existing lighting that does not meet the requirement of Zoning Ordinance Number 208, Section XXIV, Subsection 24.5, which states that "any parking, yard, or building illumination in [any] zoning [district] shall be so directed as to protect adjacent properties from glare and direct lighting" is required to be brought into conformance with this Section of Zoning Ordinance Number 208. d. All existing exterior residential lighting, not affected by (a) and (c) above, that does not comply with this Ordinance is required to be brought into conformance with this Ordinance within two years from the date of adoption of this Ordinance, by June 30, 2001. e. In the event of a discrepancy in applicable ordinances, the most restrictive shall apply.

7	Coconino County, Arizona 	<u>Non-Single Family Residential Lighting</u> Whenever a person plans to install outdoor lighting, an outdoor lighting permit must be applied for and granted. <u>Single Family Residential Lighting</u> Lighting on single family residential sites will be reviewed on-site, and compliance with this Code verified before issuance of the Certificate of Occupancy. A lighting permit separate from the building permit is not required.
8	Taos Valley, New Mexico 	The lighting permit is required by any owner or owner's authorization representative prior to the initiation of any exterior lighting activities….. Fixtures existing prior to the effective date of this ordinance must now come into compliance with the provisions of this ordinance.
9	Goochland County, Virginia 	The following standards shall apply to outdoor light fixtures installed after the effective date of this Division…
10	Lombardy Region, Northern Italy 	From the date of coming into effect of the r.l. 17/00, all the new installations of outdoor lighting, both public and private, which concern the whole regional territory, including those still in design or in contract procedure, must be realized according to the present anti-light-pollution criteria and reduced energy consumption.

SECTION 4. PROPOSED CODE AMENDMENTS

Oregon law preempts the county from adopting retroactive ordinances which impose new standards upon uses that exist on the date that new regulations are adopted. For example, the county does not have the authority to require all existing exterior lighting in Multnomah County to come into compliance by a certain date. However, the county does have the authority to require Dark Sky compliance for all new and existing lighting associated with a proposed development application. The proposed trigger for dark sky lighting within this section was crafted with these legal sideboards in mind.

One project goal is for the county lighting review to utilize a basic non-discretionary (over the counter) process used for building plan review. Therefore it is critical that the dark sky regulations be clear and

objective rather than discretionary. The process envisioned for review would require an applicant to mark on the site plan the location of all existing and proposed outdoor lighting. This would be required information just like property lines, building and driveway locations, etc. and would be listed on the County's building permit checklist. Photographs or lighting details may also be required for both existing and proposed light fixtures, depending on the proposal details. Staff would evaluate this information when reviewing a proposal to decide which new and existing exterior lighting fixtures would need to be dark sky compliant. Bringing existing fixtures into compliance will not always require purchasing a new fixture; simply creating a shield out of opaque materials such as aluminum or copper sheeting can effectively direct light downward in some cases.

Staff note: The following formatting styles are used for the proposed code language:

Regular Text = Existing code language to remain
Double Underline = Proposed new language
~~Strikethrough~~ = Language proposed for removal

* * * = Portion of existing code removed (skipping to another code section to reduce report length)

SECTION 4.1 – DEFINITIONS

MCC 33.0005 DEFINITIONS;
MCC 34.0005 DEFINITIONS;
MCC 35.0005 DEFINITIONS;
MCC 36.0005 DEFINITIONS;
MCC 11.15.0010 Definitions

Exterior Lighting – means artificial outdoor illumination as well as artificial outdoor illuminating devices or fixtures, whether permanent or temporary, including, but not limited to, illumination and illuminating devices or fixtures emanating from or attached to: the exterior of buildings, including under canopies and overhangs; structures, such as poles, fences or decks; the interior or exterior of open-air structures or buildings, such as gazebos, pergolas, and breezeways; and the ground, a tree or other natural feature.

SECTION 4.2- DARK SKY PURPOSE STATEMENT, EXEMPTIONS & DEVELOPMENT STANDARDS

MCC 33.0570 Dark Sky Lighting Standards;
MCC 34.0570 Dark Sky Lighting Standards;
MCC 35.0570 Dark Sky Lighting Standards;
MCC 36.0570 Dark Sky Lighting Standards;
MCC 11.15.9205 Dark Sky Lighting Standards;

(A) The purpose of the Dark Sky Lighting Standards in this section is to protect and promote public health, safety and welfare by preserving the use of exterior lighting for security and the nighttime use and enjoyment of property while minimizing the obtrusive aspects of exterior lighting uses that degrade the nighttime visual environment and negatively impact wildlife and human health.

(B) The following exterior lighting is exempt from the requirements of paragraph (C) of this section:

(1) Lighting lawfully installed prior to the effective date of this ordinance, provided that the building enlargement threshold in paragraph (C) of this section is not exceeded.

(2) Lighting used for safe pedestrian passage, installed at ground level (such as along walkways and stairs), provided that individual lights produce no more than 30 lumens.

Staff note – Staff recommends lumens as the unit of measure for the Dark Sky ordinance. Lumens measure light output as opposed to watts, for example, which measure how much energy a bulb (a.k.a lamp) uses. Lumen output is commonly reported on bulb marketing and product materials and appears to be the most common metric used for LED bulbs, which are becoming increasingly popular for their low energy use.

An on-line review of low voltage pathway lighting (both solar and wired) suggests common lumens per light ranged from 8 to 50. Many of the solar pathway lights, for example, rated under10 lumens per light but product reviews on-line occasionally reflected complaints that this was not enough illumination. Staff is recommending a 30 lumen exemption cap.







Although some models of wired pathway lighting offered hundreds of lumens per light, these tended to be targeted more for commercial and municipal applications or were associated with product photos showing a fairly bright light which would likely contribute to sky glow if unshielded.

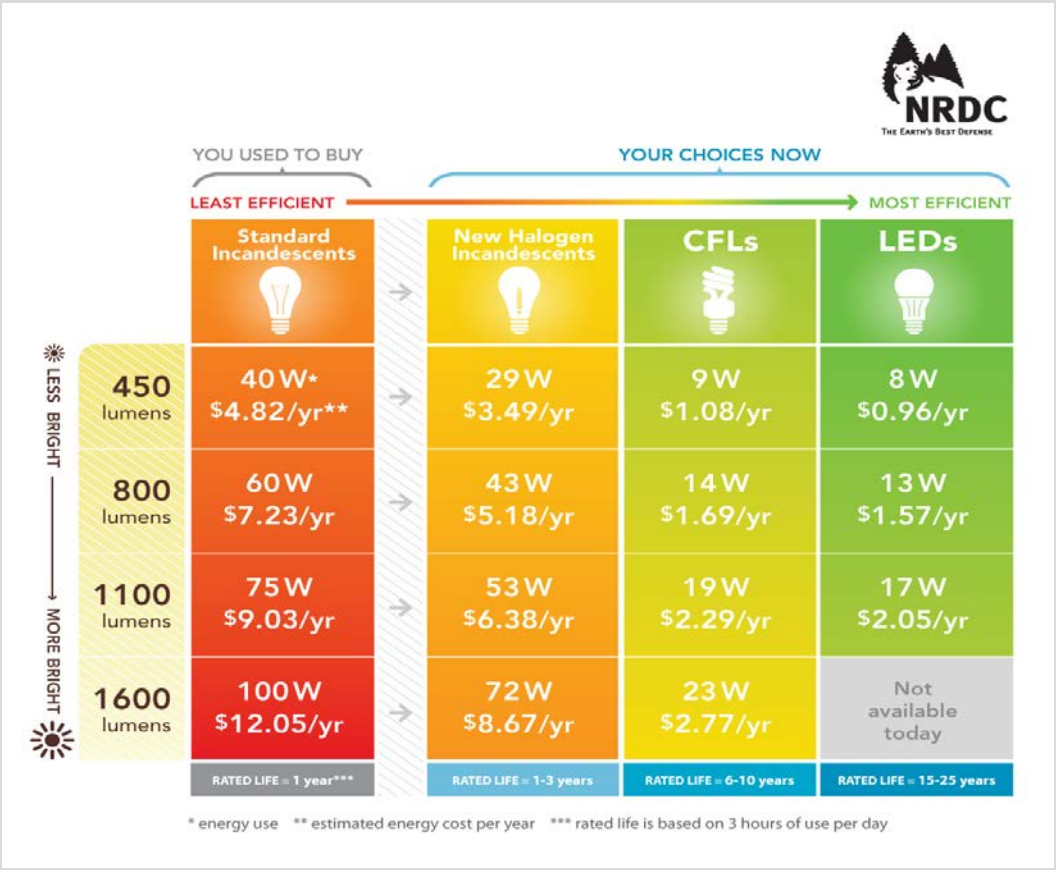
(3) Lighting that shines for not more than 90 nights in any calendar year provided that individual lights produce no more than 70 lumens.

Staff note – The International Dark Sky Association Model Code recommends exempting temporary seasonal lighting as long as individual lamps produce less than 70 lumens. For context, a small individual Christmas tree bulb on a string typically generates 3-4 lumens whereas a large Christmas tree bulb generates 20-30 lumens. A 60 watt incandescent household bulb typically generates 800 lumens.









(4) Lighting which shines for not more than 60 nights in any calendar year associated with discrete farming practices as defined in ORS 30.930 and agricultural use as defined in OAR 603-095-0010, *except* that permanent lighting on buildings, structures or poles associated with farm practices and agricultural use is subject to the requirements of this section. For purposes of this exemption, "discrete farming practices" does not include farm stand or agri-tourism events or activities.

(5) Lighting which shines for not more than 60 nights in any calendar year associated with discrete forest practices as defined by ORS chapter 527 (The Oregon Forest Practices Act),

except that permanent lighting on buildings, structures or poles associated with forest practices is subject to the requirements of this Section.

(6) Lighting which shines for not more than 60 nights in any calendar year associated with theatrical, television, and performance areas. For purposes of this exemption, theatrical, television, and performance activities do not include farm stand or agri-tourism events or activities.

Staff note – Temporary lighting for theatrical, television and performance areas is a recommended exemption within the International Dark Sky Association Model Code. An on-line review of lighting designed for movie sets suggests common set lighting cannot easily be retrofitted to be dark sky compliant and still meet the illumination needs of the industry. Additionally, the exemption is only available for lighting not exceeding 60 nights and therefore will not become a permanent contributor.







(7) Lighting in support of work necessary to protect, repair, maintain, or replace existing structures, utility facilities, service connections, roadways, driveways, accessory uses and exterior improvements in response to emergencies pursuant to the provisions of MCC 33.0535 [34.0535, 35.0535, 36.0535, 11.15.2282] (Responses to an Emergency/Disaster Event), provided that after the emergency has passed, all lighting to remain is subject to the requirements of this section.

(8) Lighting used by a public agency in service of a temporary public need, when such lighting cannot both serve the public need and comply with the standards in paragraph (C) of this section.

(9) Lighting required by a federal, state, or local law or rule, when such lighting cannot comply with both the law or rule and the standards in paragraph (C) of this section.

(10) Lighting used in support of public agency search and rescue and recovery operations.

(11) Traffic control devices in compliance with the Manual on Uniform Traffic Control Devices, when such lighting cannot both serve the public need and comply with the standards in paragraph (C) of this section.

(12) Lighting necessary to meet federal, state or local historic preservation standards when such lighting cannot both meet historic preservation standards and comply with the standards in paragraph (C) of this section.

(13) Underwater lighting.

(C) The following standards apply to all new exterior lighting supporting a new, modified, altered, expanded, or replaced use approved through a development permit and to all existing exterior lighting on property that is the subject of development permit approval for enlargement of a building by more than 400 square feet of ground coverage:

Staff note –This threshold ties regulation of new and existing lighting to issuance of a development permit which will establish a date for county records that lighting was either installed or updated. The term 'development' is defined in MCC XX.0005 as "any act requiring a permit stipulated by Multnomah County Ordinances as a prerequisite to the use or improvement of any land, including a building, land use, occupancy, sewer connection or other similar permit, and any associated grading or removal of vegetation."

(1) The light source (bulbs, lamps, etc.) must be fully shielded with opaque materials and directed downwards. "Fully shielded" means no light is emitted above the horizontal plane located at the lowest point of the fixture's shielding. Shielding must be permanently attached.

(2) The lighting must be contained within the boundaries of the Lot of Record on which it is located. To satisfy this standard, shielding in addition to the shielding required in paragraph (C)(1) of this section may be required.

SECTION 4.3 - REFERENCE WITHIN ZONING DISTRICTS TO NEW DARK SKY CODE SECTION

(Chapter 33 Amendments)

(CFU-1)
MCC 33.2061 DEVELOPMENT STANDARDS FOR DWELLINGS AND STRUCTURES

All dwellings and structures shall comply with the approval criteria in (B) through ~~(E)~~ (D) below except as provided in (A). All exterior lighting shall comply with MCC 33.0570:

* * *

(A)(2)(c) Replacement or restoration of a dwelling that is not located within the footprint of the original dwelling but it is located where at least a portion of the replacement dwelling is within 100 feet of the original dwelling: Shall meet the development

standards of MCC 33.2061(C) ~~and the applicable driveway/road requirements of 33.2261(E)~~;

Staff note: The stricken language above is a housekeeping correction unrelated to the Dark Sky provisions. This language refers to a section of code which has been removed and is now implemented by local fire districts. This change will be made to other sections of code as well.

(CFU-2)
MCC 33.2261 DEVELOPMENT STANDARDS FOR DWELLINGS AND STRUCTURES

All dwellings and structures shall comply with the approval criteria in (B) through ~~(E)~~ (D) below except as provided in (A). All exterior lighting shall comply with MCC 33.0570:

* * *

(A)(2)(c) Replacement or restoration of a dwelling that is not located within the footprint of the original dwelling but it is located where at least a portion of the replacement dwelling is within 100 feet of the original dwelling: Shall meet the development standards of MCC 33.2261(C) ~~and the applicable driveway/road requirements of 33.2261(E)~~;

(CFU-5)
MCC 33.2461 DEVELOPMENT STANDARDS FOR DWELLINGS AND STRUCTURES

All dwellings and structures shall comply with the approval criteria in (B) through ~~(E)~~ (D) below except as provided in (A). All exterior lighting shall comply with MCC 33.0570:

* * *

(A)(2)(c) Replacement or restoration of a dwelling that is not located within the footprint of the original dwelling but it is located where at least a portion of the replacement dwelling is within 100 feet of the original dwelling: Shall meet the development standards of MCC 33.2461(C) ~~and the applicable driveway/road requirements of 33.2261(E)~~;

(EFU)
MCC 33.2660 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(G) All exterior lighting shall comply with MCC 33.0570.

(MUA-20)

MCC 33.2855 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(G) All exterior lighting shall comply with MCC 33.0570.

(RR)
MCC 33.3155 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(F) All exterior lighting shall comply with MCC 33.0570.

(BRC)
MCC 33.3355 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(I) All exterior lighting shall comply with MCC 33.0570.

(Chapter 34 Amendments)

(EFU)
MCC 34.2660 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(G) All exterior lighting shall comply with MCC 34.0570.

(MUA-20)
MCC 34.2855 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(G) All exterior lighting shall comply with MCC 34.0570.

(RR)
MCC 34.3155 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(F) All exterior lighting shall comply with MCC 34.0570.

(RC)
MCC 34.3355 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(F) All exterior lighting shall comply with MCC 34.0570.

(Chapter 35 Amendments)

(CFU-3)
MCC 35.2061 DEVELOPMENT STANDARDS FOR DWELLINGS AND STRUCTURES

All dwellings and structures shall comply with the approval criteria in (B) through ~~(E)~~ (D) below except as provided in (A). All exterior lighting shall comply with MCC 35.0570:

* * *

(A)(2)(c) Replacement or restoration of a dwelling that is not located within the footprint of the original dwelling but it is located where at least a portion of the replacement dwelling is within 100 feet of the original dwelling: Shall meet the development standards of MCC 35.2061(C) ~~and the applicable driveway/road requirements of 33.2061(E)~~;

(CFU-4)
MCC 35.2261 DEVELOPMENT STANDARDS FOR DWELLINGS AND STRUCTURES

All dwellings and structures shall comply with the approval criteria in (B) through ~~(E)~~ (D) below except as provided in (A). All exterior lighting shall comply with MCC 35.0570:

* * *

(A)(2)(c) Replacement or restoration of a dwelling that is not located within the footprint of the original dwelling but it is located where at least a portion of the replacement dwelling is within 100 feet of the original dwelling: Shall meet the development standards of MCC 35.2261(C) ~~and the applicable driveway/road requirements of 33.2261(E)~~;

(EFU)
MCC 35.2660 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(G) All exterior lighting shall comply with MCC 35.0570.

(MUA-20)
MCC 35.2855 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(G) All exterior lighting shall comply with MCC 35.0570.

(RR)
MCC 35.3155 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(F) All exterior lighting shall comply with MCC 35.0570.

(SRC)
MCC 35.3355 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(J) All exterior lighting shall comply with MCC 35.0570.

(Chapter 36 Amendments)

(CFU)
MCC 36.2061 DEVELOPMENT STANDARDS FOR DWELLINGS AND STRUCTURES

All dwellings and structures shall comply with the approval criteria in (B) through ~~(E)~~ (D) below except as provided in (A). All exterior lighting shall comply with MCC 36.0570:

* * *

(A)(2)(c) Replacement or restoration of a dwelling that is not located within the footprint of the original dwelling but it is located where at least a portion of the replacement dwelling is within 100 feet of the original dwelling: Shall meet the development standards of MCC 36.2061(C) ~~and the applicable driveway/road requirements of 33.2061(E)~~;

(EFU)
MCC 36.2660 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

(I) All exterior lighting shall comply with MCC 36.0570.

(MUA-20)
MCC 36.2855 DIMENSIONAL STANDARDS AND DEVELOPMENT REQUIREMENTS

(J) All exterior lighting shall comply with MCC 36.0570.

(RR)
MCC 36.3155 DIMENSIONAL STANDARDS AND DEVELOPMENT REQUIREMENTS

(I) All exterior lighting shall comply with MCC 36.0570.

(PH-RC)
MCC 36.3355 DIMENSIONAL STANDARDS AND DEVELOPMENT REQUIREMENTS

(I) All exterior lighting shall comply with MCC 36.0570.

(OR)
MCC 36.3455 DIMENSIONAL STANDARDS AND DEVELOPMENT REQUIREMENTS

(I) All exterior lighting shall comply with MCC 36.0570.

(OCI)
MCC 36.3550 DIMENSIONAL STANDARDS AND DEVELOPMENT REQUIREMENTS

(I) All exterior lighting shall comply with MCC 36.0570.

(Chapter 11.15 Amendments)

Exclusive Farm Use District

* * *

11.15.2016 Dimensional Requirements and Development Standards

* * *

(F) All exterior lighting shall comply with MCC 11.15.9205.

Commercial Forest Use Districts

* * *

11.15.2058 Dimensional Requirements and Development Standards

* * *

(I) All exterior lighting shall comply with MCC 11.15.9205.

Multiple Use Agriculture (MUA-20)

* * *

11.15.2138 Dimensional Requirements and Development Standards

* * *

(F) All exterior lighting shall comply with MCC 11.15.9205.

Multiple Use Forest

* * *

11.15.2178 Dimensional Requirements and Development Standards

* * *

(F) All exterior lighting shall comply with MCC 11.15.9205.

Rural Residential

* * *

11.15.2218 Dimensional Requirements and Development Standards

* * *

(F) All exterior lighting shall comply with MCC 11.15.9205.

Rural Center

* * *

11.15.2258 Dimensional Requirements and Development Standards

* * *

(F) All exterior lighting shall comply with MCC 11.15.9205.

Urban Future UF-20

11.15.2392 Dimensional Requirements and Development Standards

* * *

(F) All exterior lighting shall comply with MCC 11.15.9205.

Urban Future UF-10

11.15.2412 Dimensional Requirements and Development Standards

* * *

(E) All exterior lighting shall comply with MCC 11.15.9205.

Urban Low Density Residential District (LR-10)

* * *

11.15.2572 Dimensional Requirements and Development Standards

* * *

(G) All exterior lighting shall comply with MCC 11.15.9205.

Urban Low Density Residential District (LR-7)

* * *

11.15.2616 Dimensional Requirements and Development Standards

* * *

(I) All exterior lighting shall comply with MCC 11.15.9205.

Urban Low Density Residential District (LR-5)

* * *

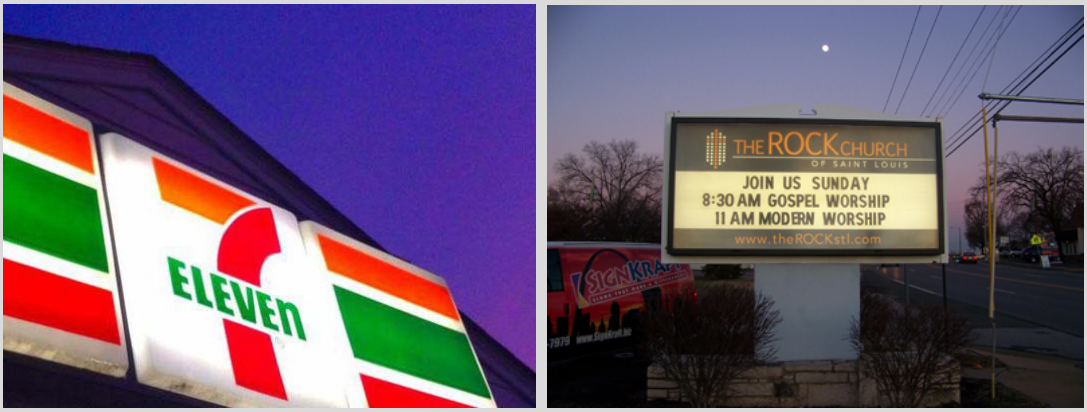
11.15.2634 Dimensional Requirements and Development Standards

* * *

(I) All exterior lighting shall comply with MCC 11.15.9205.

SECTION 4.4 – AMENDING COUNTY SIGN PROVISIONS

Staff note: A few residents of Sauvie Island have requested that current provisions allowing internally illuminated signs be removed from county code to better protect views of night skies and also help preserve the rural character of Sauvie Island. The concern has been explained that internally illuminated signs have an urban appearance and are neither appropriate nor necessary in the rural parts of the county.



Examples of internally illuminated signs.

This project presents an opportunity to not only remove the internally illuminated sign allowance from most zoning districts but also require indirect illumination to be directed downward onto the sign face to protect the night sky as shown in the two photos below.



Examples of downward directed sign illumination.

SIGNS

§ 33.7450 SIGNS GENERALLY IN THE EFU, CFU-1, CFU-2, CFU-5, MUA-20, RR, AND BRC ZONES;
§ 34.7450 SIGNS GENERALLY IN THE EFU, MUA-20, RR, AND RC ZONES;
§ 35.7450 SIGNS GENERALLY IN THE EFU, CFU-3, CFU-4, MUA-20, RR, AND SRC ZONES;
§ 36.7450 SIGNS GENERALLY IN THE EFU, CFU, MUA-20, RR, PH-RC, OCI AND OR ZONES;

* * *

(C) Sign Features

Permanent signs may have the following features:

(1) Signs may be indirectly ~~or internally~~ illuminated downward onto the sign face.

(2) Electronic message centers are not allowed.

(3) Flashing signs are not allowed.

(4) Rotating signs are not allowed.

(5) Moving parts are not allowed.

(6) Internally illuminated signs are not allowed, except in BRC, RC, SRC, PH-RC, OCI and OR Zones.

* * *

§ 11.15.7932 SIGNS GENERALLY IN THE GC, EC, LM, GM, HM, C-2, M-4, M-3, M-2 AND M-1 ZONES

* * *

C. Sign Features

Permanent signs may have the following features:

1. Signs may be indirectly~~, internally or directly~~ illuminated downward onto the sign face.
2. Electronic message centers are not allowed.
3. ~~Fifteen percent of the face of all sign types may be flashing.~~ Flashing signs are not allowed.
4. Rotating signs are not allowed.
5. Moving parts are not allowed.

* * *

Staff Contact: Adam Barber

§ 11.15.7934 Signs Generally in LC, NC, SC, C-4, and C-3 Zones

* * *

C. Sign Features

Permanent signs may have the following features:

A. Signs may be indirectly~~, internally or directly~~ illuminated downward onto the sign face.
B. Electronic message centers are not allowed. ~~may not be greater than 24 square feet in area.~~
C. Flashing signs are not allowed.
D. Rotating signs are not allowed.
E. Moving parts are not allowed.

* * *

11.15.7936 Signs Generally in the TLC, TNC, TGC, TO, AND TLM Zones

C. Sign Features

Permanent signs may have the following features.

1. Signs may be indirectly ~~or internally~~ illuminated downward onto the sign face.
2. Electronic message centers are not allowed ~~with a maximum of 15 square feet~~.
3. Flashing signs are not allowed.
4. Rotating signs are not allowed.
5. Moving parts are not allowed.

* * *

11.15.7938 Signs Generally in the BPO Zone and for ~~Ofice~~ Office and Commercial Uses in the MR-4, MR-3, HR-2, HR-1, A-2, A-1-B, TMR, and THR Zones and for Uses Permitted Under Prescribed Conditions in the LC, NC, GC, EC and SC Zones

* * *

C. Sign Features

Permanent signs may have the following features:

1. Signs may be indirectly~~, internally or directly~~ illuminated downward onto the sign face.
2. Electronic message centers are not allowed ~~with a maximum size of 15 square feet~~.
3. Flashing signs are not allowed.
4. Rotating signs are not allowed.
5. Moving parts are not allowed.

* * *

11.15.7940 Signs Generally in the MR-4, MR-3, HR-2, HR-1, A-2, A-1-B, TMR and THR Zones

* * *

C. Sign Features

Permanent signs may have the following features:

1. Signs may be indirectly ~~or internally~~ illuminated downward onto the sign face.
2. Electronic message centers are not allowed.
3. Flashing signs are not allowed.
4. Rotating signs are not allowed.
5. Moving parts are not allowed.

* * *

11.15.7942 Signs Generally in the EFU, CFU, MUA-20, MUF, RR, RC, SR, UF-20 and UF-10 ZONES and for Community Service Uses and Conditional Uses in the LR-40, LR-30, LR-20, LR-10, LR-7.5, LR-7, LR-5, R-40, R-30, R-20, R-10, R-7, R-4, and TLR-5 Zones

* * *

C. Sign Features

Permanent signs may have the following features:

1. Signs may be indirectly ~~or internally~~ illuminated downward onto the sign face.
2. Electronic message centers are not allowed.
3. Flashing signs are not allowed.
4. Rotating signs are not allowed.
5. Moving parts are not allowed.

* * *

§ 33.7455 BILLBOARD REGULATIONS
§ 34.7455 BILLBOARD REGULATIONS
§ 35.7455 BILLBOARD REGULATIONS
§ 36.7455 BILLBOARD REGULATIONS
§ 11.15.7952 BILLBOARD REGULATIONS

Billboards are allowed in unincorporated Multnomah County as described in MCC *§*.7400 *(§.7920) et. seq*.

* * *

(D) Development Standards

* * *

(11) Billboard lights shall be placed so the light is directed downward onto the billboard face and not directed toward a street or adjacent residential unit.

* * *

§ 33.7490 DIRECTIONAL SIGNS

Maximum Sign Face Area:	Six Square Feet
Types of Signs Allowed:	Free Standing, Fascia, Projecting, Painted Wall
Maximum Height:	Free Standing 42 Inches Fascia and Projecting 8 Feet
Extensions into R/W:	Not Allowed
Lighting:	Indirectly illuminated ~~or Internal~~ downward onto the sign face
Flashing Lights:	Not Allowed
Electronic Message Centers:	Not Allowed
Moving or Rotating Parts:	Not Allowed

§ 34.7490 DIRECTIONAL SIGNS
§ 35.7490 DIRECTIONAL SIGNS
§ 36.7490 DIRECTIONAL SIGNS

Directional signs shall comply with the following provisions:

Maximum Sign Face Area:	Six Square Feet
Types of Signs Allowed:	Free Standing, Fascia, Projecting, Painted Wall

Maximum Height:	Free Standing 42 Inches Fascia and Projecting 8 Feet
Extensions into R/W:	Not Allowed
Lighting:	Indirectly illuminated ~~or Internal~~ downward onto the sign face
Flashing Lights:	Not Allowed
Electronic Message Centers:	Not Allowed
Moving or Rotating Parts:	Not Allowed

* * *

§ 11.15.7974 DIRECTIONAL SIGNS

Directional signs shall comply with the following provisions:

Table .7974 Directional Signs	
Maximum Sign Face Area	Six Square Feet
Types of Signs Allowed	Free Standing, Fascia, Projecting, Painted Wall
Maximum Height – Free Standing	42 Inches
Maximum Height – Fascia and Projecting	8 Feet
Extensions into R/W	Not Allowed
Lighting	Indirectly illuminated ~~or Internal~~ downward onto the sign face
Flashing Lights	Not Allowed
Electronic Message Centers	Not Allowed
Moving or Rotating Parts	Not Allowed

SECTION 4.5 – REMOVING DUPLICATIVE EXISTING LIGHTING REQUIREMENTS IN WEST OF SANDY PH-RC, OR, OCI, SEC-H ZONES

Staff note: The following language is proposed to be removed from the PH-RC, OR, OCI base zones and SEC-h overlay zone because exterior lighting requirements for these areas are proposed to be captured in the new Dark Sky lighting standards.

PLEASANT HOME RURAL CENTER, PH-RC

* * *

§ 36.3355 DIMENSIONAL STANDARDS AND DEVELOPMENT REQUIREMENTS.

All development proposed in this district shall comply with the applicable provisions of this section.

* * *

~~(G) New and replacement exterior lighting fixtures shall be of the "cut off" or fully shielded type so that no light is emitted above the horizontal.~~

~~(H)~~ (G) New, replacement, or expansion of existing dwellings shall minimize impacts to existing farm uses on adjacent land (contiguous or across the street) by:

* * *

ORIENT RURAL CENTER RESIDENTIAL, OR

* * *

§ 36.3455 DIMENSIONAL STANDARDS AND DEVELOPMENT REQUIREMENTS.

All development proposed in this district shall comply with the applicable provisions of this section.

* * *

~~(G) New and replacement exterior lighting fixtures shall be of the "cut off" or fully shielded type so that no light is emitted above the horizontal.~~

~~(H)~~ (G) New, replacement, or expansion of existing dwellings shall minimize impacts to existing farm uses on adjacent land (contiguous or across the street) by:

* * *

ORIENT COMMERCIAL-INDUSTRIAL, OCI

* * *

§ 36.3550 DIMENSIONAL STANDARDS AND DEVELOPMENT REQUIREMENTS.

All development proposed in this district shall comply with the applicable provisions of this section.

* * *

~~(G) New and replacement exterior lighting fixtures shall be of the "cut off" or fully shielded type so that no light is emitted above the horizontal.~~

~~(H)~~ (G) New, replacement, or expansion of existing dwellings shall minimize impacts to existing farm uses on adjacent land (contiguous or across the street) by:

* * *

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§ 36.4567 SEC-H CLEAR AND OBJECTIVE STANDARDS.

At the time of submittal, the applicant shall provide the application materials listed in MCC 36.4540(A) and (D). The application shall be reviewed through the Type I procedure and may not be authorized unless the following are met:

(A) The proposed development meets the standards listed in 36.4560(A)(1) through (5);

(B) The proposed development shall meet the applicable storm water and grading and erosion control requirements of MCC Chapter 29. Ground disturbance within 100 feet of a watercourse as defined by MCC 29.351 shall be limited to the period between May 1st and September 15th. Revegetation and soil stabilization must be accomplished no later than October 15th.

~~(C) New and replacement exterior lighting fixtures shall be of the "cut off" or fully shielded type so that no light is emitted above the horizontal plane. The location and illumination area of lighting needed for security of utility facilities shall not be limited by this provision.~~

~~(D)~~ (C) The nuisance plants in 36.4550, Table 1, in addition to the nuisance plants defined in 36.4510, shall not be used as landscape plantings within the SEC-h Overlay Zone.

For development that fails to meet all of the standards listed above, a separate land use application pursuant to MCC 36.4560 may be submitted.

SECTION 5. CONCLUSION

The purpose of the Dark Sky lighting standards is to protect and promote public health, safety and welfare by preserving the use of exterior lighting for security and the nighttime use and enjoyment of property while minimizing the obtrusive aspects of exterior lighting uses that degrade the nighttime visual environment and negatively impact wildlife and human health.

Adoption of a dark sky ordinance also supports the community desire reflected within Dark Sky Policy 3.7 of the 2015 Sauvie Island/Multnomah Channel Rural Area Plan. Staff has heard support for the dark sky regulatory concept when meeting with neighborhood associations across the county's rural jurisdiction. The Planning Division would like to move this project to public hearing with the Board of County Commissioners.

SECTION 6. ATTACHMENTS

ATTACHMENT A – International Dark-Sky Association (IDA) – Information Sheet #24 (Security Lighting: Let's Have Real Security, Not Just Bad Lighting

[i] http://darksky.org/light-pollution/energy-waste/

Staff Contact: Adam Barber