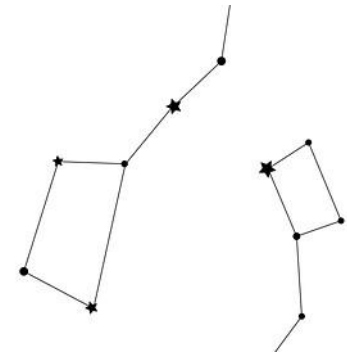
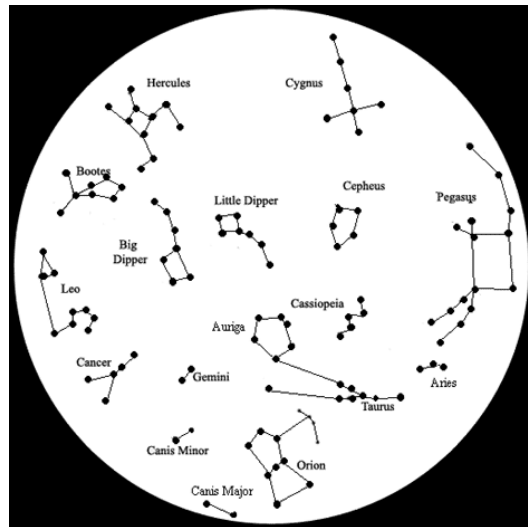
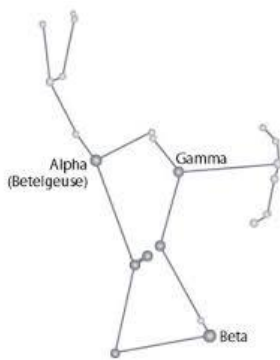


**STAFF REPORT TO THE PLANNING COMMISSION  
FOR THE  
WORKSESSION ON MARCH 7, 2016  
PROPOSED DARK SKY LIGHTING REQUIREMENTS  
CASE FILE: PC-2013-3056**



**SECTION 1. INTRODUCTION TO THE DARK SKY CONCEPT**

In October 2013, the ‘Dark Sky’ regulatory concept was first introduced to the Planning Commission who directed staff to research more aggressive measures to address light pollution. Outdoor lighting ordinances are commonly referred to as Dark Sky ordinances in reference to the primary goal of reducing glow in the night sky. In 2010, the USA Today estimated 300 U.S. counties; cities and towns had adopted dark sky legislation with popularity for such solutions gaining support from a wide range of players including conversationalists, builders, planners and the military<sup>1</sup>.

A dark sky is one of the many qualities that set rural areas apart from urban and suburban communities. Existing County land use codes only require Dark Sky type lighting in specific geographical areas. The proposed code language offers a more holistic approach by applying the 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 and December 1, 2014.

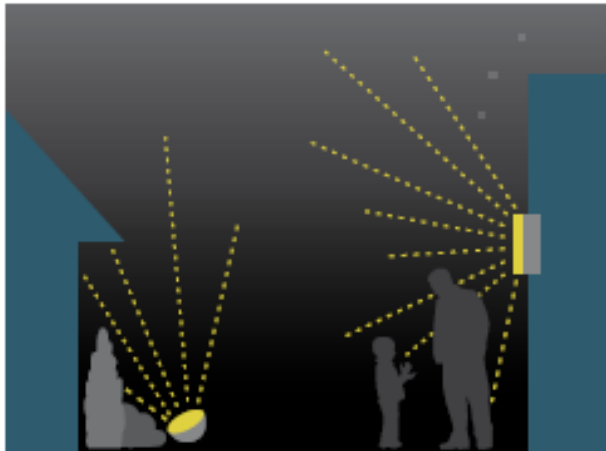
*Staff Contact: Adam Barber*

## SECTION 2. DARK SKY ORDINANCE - WHY DO IT?

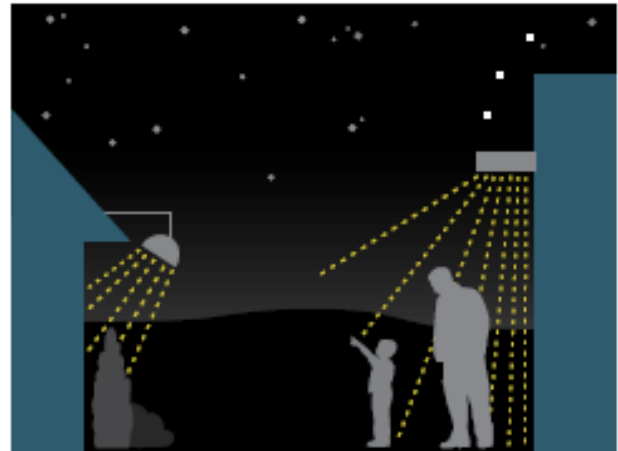
### Preservation of the Night Sky

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, and can have negative effects on humans and wildlife.

The Dark Sky concept promotes the thoughtful approach to outdoor lighting design. Research has shown links between light pollution and negative impacts on human health, adverse behavioral changes in insect and animal populations, and a decrease of both quality of ambient lighting and safety in the nighttime environment.



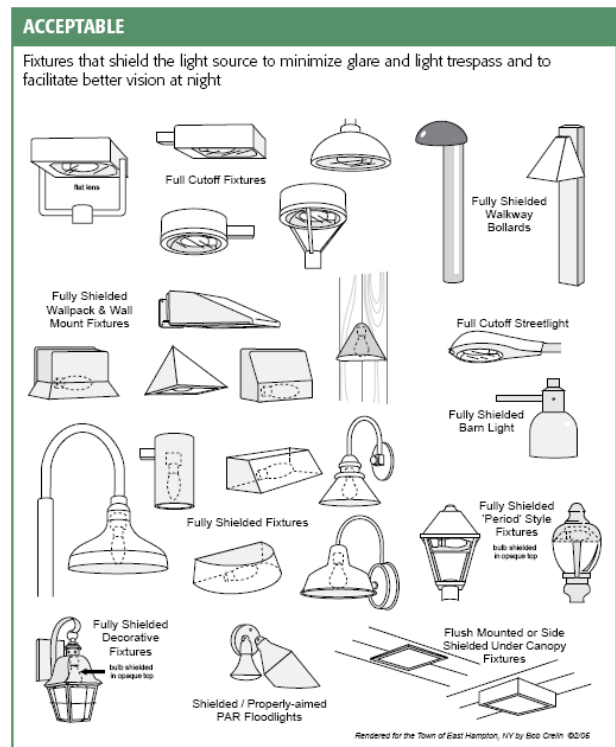
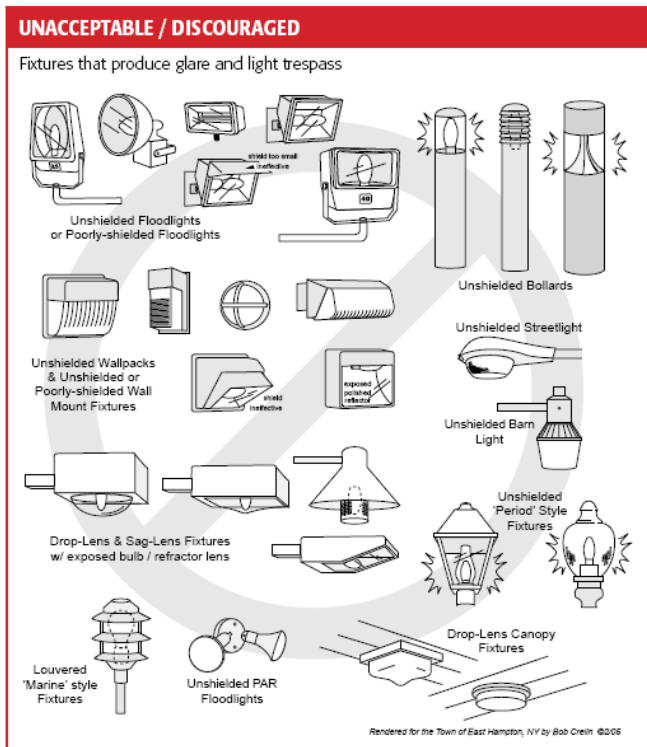
Unshielded fixtures create glare and waste light.



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. 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 friendly 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 produces a condition known as “disability glare”. Disability glare is so intense it causes 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.

### 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 results in wasted energy amounting to over one billion dollars a year. 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 or replaced after a certain date must be dark sky compliant.** This is a more aggressive approach by now 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) 	<p>...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.</p>
2	Ashland, Oregon 	<p><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].</p>
3	Dundee, Oregon 	<p>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...</p> <p>...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...</p> <p>...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.</p>
4	Island County, Washington 	<p>The following Outdoor Lighting Standards shall apply in all zones...</p> <p>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...</p> <p>...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.</p>

5	<p>Napa County, California</p> 	<p>All exterior lighting shall be shielded or recessed such that the light source is not visible from off-site.</p>
6	<p>Ketchum, Idaho</p> 	<p><b>1.3 Scope</b> - 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:</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>e. In the event of a discrepancy in applicable ordinances, the most restrictive shall apply.</p>
7	<p>Coconino County, Arizona</p> 	<p><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.</p> <p><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.</p>
8	<p>Taos Valley, New Mexico</p>	<p>The lighting permit is required by any owner or owner's authorization representative prior to the initiation of any exterior lighting activities..... Fixtures</p>

		<p>existing prior to the effective date of this ordinance must now come into compliance with the provisions of this ordinance.</p>
<p>9</p>	<p>Goochland County, Virginia  <i>(Area of origin for county staff Adam Barber)</i></p> 	<p>The following standards shall apply to outdoor light fixtures installed after the effective date of this Division...</p>
<p>10</p>	<p>Lombardy Region, Northern Italy</p> 	<p>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.</p>

**SECTION 4. PROPOSED CODE AMENDMENTS**

Oregon State 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 require purchasing a new fixture and simply creating a shield out of opaque materials such as aluminum or copper sheeting can effectively direct light downward.

## **SECTION 4.1 – DEFINITIONS**

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)

MCC 33.0005 DEFINITIONS; 34.0005 DEFINITIONS; 35.0005 DEFINITIONS; 36.0005  
DEFINITIONS; 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 - REFERENCE WITHIN ZONING DISTRICTS TO NEW DARK SKY CODE SECTION**

*Staff note: The proposed Dark Sky concept begins by adding a regulatory trigger within each of the zoning districts referencing the new Dark Sky lighting code section. Although County Code Chapter 33 (West Hills) is used as an example below to illustrate the location and structure of the proposed amendments; these changes will also be applied to other plan areas regulated by County Code including Chapters 34, 35, 36 and 11.15. Chapter 11.15 changes will be limited to unincorporated zoning districts still regulated by Multnomah County (CFU Districts, EFU, RR, RC, UF-20, LR-10, LR-7, LR-5).*

*For the Exclusive Farm Use (EFU), Multiple Use Agriculture – 20 (MUA-20), Rural Residential (RR), Rural Center and Commercial /Industrial districts (BRC, OR, OCI, PH-RC, RC, SRC), and various urban zoning designations, the existing code sections dealing with the dimensional requirements (setbacks, minimum front lot line length, building height) will be renamed to ‘Dimensional Requirements and Development Standards’. This rename will make Chapters 11.15, 33, 34 and 35 consistent with Chapter 36 in style. The following shows an example of the change to Chapter 33’s EFU district:*

MCC 33.2660 DIMENSIONAL REQUIREMENTS AND DEVELOPMENT STANDARDS

\* \* \*

*Staff note: The following code language will be added at the end of the section as a trigger requiring compliance with the new Dark Sky standards in MCC 33.0570:*

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

*Staff note: For all Commercial Forest Use zones (CFU, CFU-1, CFU-2, CFU-3, CFU-4 and CFU-5)*



listed within Chapters 33, 35, 36 and 11.15; the above trigger language would be added to the intro of the existing code section titled DEVELOPMENT STANDARDS FOR DWELLINGS AND STRUCTURES as follows:

§ 33.2261 DEVELOPMENT STANDARDS FOR DWELLINGS AND STRUCTURES  
All dwellings and structures shall comply with the approval criteria in (B) through (E) below except as provided in (A). All exterior lighting shall comply with MCC 33.0570:

\* \* \*

(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);~~

*Staff note: The stricken language above is a housekeeping correction. This language refers to a section of code which has been removed and is now implemented by local fire districts.*

\* \* \*

#### Commercial Forest Use Districts

\* \* \*

##### 11.15.2058 Dimensional Requirements and Development Standards

\* \* \*

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

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#### Exclusive Farm Use District

\* \* \*

##### 11.15.2016 Dimensional Requirements and Development Standards

\* \* \*

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

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#### Rural Residential

\* \* \*

##### 11.15.2218 Dimensional Requirements and Development Standards

\* \* \*

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

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Rural Center

\* \* \*

11.15.2258 Dimensional Requirements and Development Standards

\* \* \*

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

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Urban Future UF-20

11.15.2932 Dimensional Requirements and Development Standards

\* \* \*

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

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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.

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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.

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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 4.3 - DARK SKY PURPOSE STATEMENT, EXEMPTIONS & DEVELOPMENT STANDARDS**

*Staff note: Chapter 33.0570 is used as an example below. The changes will also be added to Chapters 34, 35 and 36. Additionally, staff is proposing adding these standards to Chapter 11.15, in newly created section 11.15.9205.*

#### MCC 33.0570 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 that shines for not more than 90 nights in any calendar year provided that individual lights are less than 10 watts and 70 lumens.

(3) 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 practices is subject to the requirements of this Section. For purposes of this exemption, "discrete farming practices" does not include farm stand use.

(4) 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 State Forest Practices Act), except that permanent lighting on buildings, structures or poles associated with forest practices is subject to the requirements of this Section.

(5) 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 (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.

(6) 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.

(7) 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.

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

(9) Traffic control devices in compliance with the Manual on Uniform Traffic Control Devices.

(10) 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.

(11) 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:

*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.) is fully shielded with opaque materials and directed downwards. Fully shielded shall mean 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 is directed 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 4.4 – AMENDING COUNTY SIGNS PROVISIONS**

*Staff note: We have received a community generated request 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. The concern has been explained that internally illuminated signs have an urban appearance and are neither appropriate nor necessary in the rural areas.*



**Examples of an internally illuminated signs.**

*This project presents an opportunity to not only remove the internally illuminated sign allowance 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.**

*The following amendments below are shown within 33 and will also be applied to the Signs regulations within Chapters 34, 35, 36 and 11.15.*

## **SIGNS**

\* \* \*

### **§ 33.7425 PROHIBITED SIGNS**

The following signs are prohibited and shall be removed:

(A) Strobe lights and signs containing strobe lights which are visible beyond the property lines;

(B) Internally illuminated signs;

(C)(B) Signs placed on or painted on a motor vehicle or trailer and parked with the primary purpose of providing a sign not otherwise allowed for by this Code;

~~(D)(C)~~ Abandoned signs;

~~(E)(D)~~ Balloon signs; and

~~(F)(E)~~ Signs in the right-of-way in whole or in part, except signs legally erected for informational purposes by or on behalf of a government agency.

\* \* \*

§ 33.7450 SIGNS GENERALLY IN THE EFU, CFU-1, CFU-2, CFU-5, MUA-20, RR, AND BRC ZONES

For all uses and sites in the above listed zones, the following types, numbers, sizes and features of signs are allowed. All allowed signs must also be in conformance with the sign development regulations of MCC 33.7460 through 33.7500.

(A) Free Standing Signs:

- (1) Allowable Area – Free standing signs are allowed .25 square feet of sign face area per linear foot of site frontage, up to a maximum of 40 square feet.
- (2) Number – One free standing sign is allowed per site frontage.
- (3) Height – The maximum height of a free standing sign is 16 feet.
- (4) Extension into the Right-Of-Way – Free standing signs may not extend into the right-of-way.

(B) Signs Attached to Buildings:

- (1) Total Allowable Area – The total allowable area for all permanent signs attached to the building is determined as follows:

Eighteen square feet of sign face area is allowed, or .25 square feet of sign face area per linear foot of the occupant's primary building frontage, whichever is more.

- (2) Individual Sign Face Area – The maximum size of an individual sign within the total allowable area limit is 50 square feet.
- (3) Types of Signs – Fascia, marquee, awning and painted wall signs are allowed. Projecting roof top and flush pitched roof signs are not allowed.
- (4) Number of Signs – There is no limit on the number of signs if within the total allowable area limit.
- (5) Extension into the Right-Of-Way – Signs attached to buildings may not extend into the right-of-way.

(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.

\* \* \*

#### § 33.7455 BILLBOARD REGULATIONS

Billboards are allowed in unincorporated Multnomah County as described in MCC 33.7400 *et. seq.*

\* \* \*

#### (D) Development Standards

- (1) When a billboard is erected, its maximum height shall be determined by available relocation permits. A permit may be used for the height of the prior billboard or for a lesser height. However, in no case may a billboard be erected which is above the allowable height of the zone where located, or 50 feet, whichever is lower.
- (2) All height measurements are measured from the top of the sign to the grade below the middle of the sign. Height measurements do not include temporary cutouts.
- (3) No billboard shall have an area less than 288 square feet nor more than 672 square feet, except that cutout extensions may be temporarily added to any billboard from time to time in order to conform to an advertiser's specifications.
- (4) Billboards shall be maintained in safe condition and all maintenance and reconstruction as may be necessary shall be in conformance with applicable County building regulations.
- (5) No billboard shall be located on a roof.
- (6) No billboard shall be located so that any portion of it extends over a property line and/or a public right-of-way.
- (7) Billboards located within 45 feet of an intersection shall comply with Section 8.14 of the Administrative Rules and Regulations under MCC 15.229 (A) (14).
- (8) No single billboard structure shall support more than two painted billboards or four poster faces.

- (9) No billboard shall contain moving parts or flashing or intermittent lights.
- (10) No permit shall be required to change the message on a billboard or to add or remove a cutout.
- (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.
- (12) Access to solar radiation for an existing solar energy collector shall be protected from encroachment by placement of a billboard.
- (13) No billboard shall be located in a landscape area as required by design review on an approved site plan.
- (14) V-shaped faces shall be allowed if located on a single billboard structure and the angle is less than 90 degrees.
- (15) In addition to the *Sign Free Areas* listed above, relocated billboards must be positioned with care and consideration of the preservation of panoramic views of the rivers, the mountains and downtown Portland.

(E) Variances – No variances are allowed pursuant to the provisions of MCC 33.7455.

\* \* \*

§ 33.7490 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:	<u>Indirectly illuminated</u> <del>or</del> <u>Internal downward onto the sign face</u>
Flashing Lights:	Not Allowed
Electronic Message Centers:	Not Allowed



\* \* \*

§ 33.7505 SIGN RELATED DEFINITIONS AND FIGURES

(A) *Abandoned Sign* – A sign structure not containing a sign for 120 continuous days or a sign not in use for 120 continuous days.

(B) *Awning Sign* – A sign incorporated into or attached to an awning.

(C) *Balloon Sign* – An inflatable temporary sign anchored by some means to a structure or developed parcel.

(D) *Banner* – A temporary sign made of fabric or other non-rigid material with no enclosing framework.

(E) *Bench Advertising Sign* – An outdoor advertising sign that is placed on a stationary object that is used primarily for sitting.

(F) *Billboard* – Billboard shall mean a sign face supported by a billboard structure.

(1) A painted billboard shall mean a 14' x 48' billboard.

(2) A poster billboard shall mean a 12' x 24' billboard.

(G) *Billboard Structure* – Billboard structure shall mean the structural framework which supports a billboard.

(H) *Building Frontage* –

(1) *Primary* – Primary building frontages are exterior building walls facing a right-of-way or private roadway, and any other exterior building wall facing a parking lot which contains a public entry to the occupant's premises.

(2) *Secondary* – Secondary building frontages are exterior building walls which are not classified as primary frontages.

(I) *Cutout* – Every type of display in the form of letters, figures, characters or other representations in cutout or irregular form attached to or superimposed upon a billboard.

(J) *Directional Sign* – A permanent sign which is designed and erected solely for the purpose of traffic or pedestrian direction and placed on the property to which the public is directed.

(K) *Electronic Message Center* – Signs whose message or display is presented with patterns of lights that may be changed at intermittent intervals by an electronic process.

(L) *Fascia Sign* – A single faced sign attached flush to a building.

- (M) *Flush Pitched Roof Sign* – A sign attached to a roof with a pitch of one to four or greater and placed parallel to the building wall.
- (N) *Free Standing Sign* – A sign on a frame, pole or other support structure which is not attached to any building.
- (O) *Interstate Highway* – Every state highway that is part of the National System of Interstate and Defense Highways established pursuant to Section 103(d), Title 23, United States Code.
- (P) *Lighting Methods:*
- (1) Direct – Exposed lighting or neon tubes on the sign face.
  - (2) Flashing – Lights which blink on and off randomly or in sequence.
  - (3) Indirect – The light source is separate from the sign face or cabinet and is directed so as to shine on the sign.
  - (4) Internal – The light source is concealed within the sign.
- (Q) *Maintenance* – Normal care needed to keep a sign functional such as cleaning, oiling and changing of light bulbs.
- (R) *Marquee Sign* – A sign incorporated into or attached to a marquee or permanent canopy.
- (S) *Moving Parts* – Features or parts of a sign structure which through mechanical means are intended to move, swing or have some motion.
- (T) *Non-Conforming Sign* – A sign or sign structure lawfully erected and properly maintained that would not be allowed under the sign regulations presently applicable to the site.
- (U) *Painted Wall Decorations* – Painted wall decorations are displays painted directly on a wall and are designed and intended as a decorative or ornamental feature.
- (V) *Painted Wall Sign* – A sign applied to a building wall with paint and which has no sign structure.
- (W) *Permanent Sign* – A sign attached to a building, structure, or the ground in some manner requiring a permit and made of materials intended for more than short-term use.
- (X) *Projecting Sign* – A sign attached to and projecting out from a building face or wall and generally at right angles to the building. Projecting signs include signs projecting totally in the right-of-way, partially in the right-of-way or fully on private property.
- (Y) *Repair* – Fixing or replacement of broken or worn parts Replacement is of comparable materials only. Repairs may be made with the sign in position or with the sign removed.
- (Z) *Right-of-Way* – Any way, street, alley or road dedicated to the use of the public.
- (AA) *Rigid Sign* – A temporary sign, other than a lawn sign, made of rigid materials such as wood, plywood, plastic.

(BB) *Roof Line* – The top edge of a roof or building parapet, whichever is higher, excluding any cupolas, chimneys or other minor projections.

(CC) *Roof Top Sign* – A sign on a roof with a pitch of less than one to four.

(DD) *Rotating Sign* – Sign faces or portions of a sign face which revolve around a central axis.

(EE) *Secondary Building Wall* – Exterior building walls or faces which are oriented toward another lot, not a right-of-way or private roadway.

(FF) *Sign* – Materials placed or constructed primarily to convey a message or other display and which can be viewed from a right of-way, private roadway or another property.

(GG) *Sign Face Area* –

(1) The area of sign faces enclosed in frames or cabinets is determined based on the outer dimensions of the frame or cabinet surrounding the sign face (see MCC 33.7505 Figure 3). Sign area does not include foundations, supports, and other essential structures which are not serving as a backdrop or border to the sign. Only one side of a double faced sign is counted.

(2) When a sign is on a base material and attached without a frame, such as a wood board or Plexiglas panel, the dimensions of the base material are to be used unless it is clear that part of the base contains no sign, related display or decoration.

(3) When signs are constructed of individual pieces attached to a building wall, sign area is determined by a perimeter drawn (the greatest height multiplied by the greatest width) around all the pieces (See MCC 33.7505 Figure 4).

(4) For sign structures containing multiple modules oriented in the same direction, the modules together are counted as one sign face (See MCC 33.7505 Figure 5).

(5) The maximum surface area visible at one time of a round or three dimensional sign is counted to determine sign area.

(6) When signs are incorporated into awnings, the entire panel containing the sign is counted as the sign face unless it is clear that part of the panel contains no sign, related display or decoration.

(HH) *Sign Height* – The vertical distance from the natural ground elevation at the midpoint of the sign to the highest point of the sign display surface, including cutouts.

(II) *Sign Structure* – A structure specifically intended for supporting or containing a sign.

(JJ) *Site* – A plot, parcel or area of land owned by or under the lawful control and in the lawful possession of one distinct ownership.

(KK) *Site Frontage* – That portion of a lot on one side of a street between two intersecting streets, accessways, or other rights-of-way (crossing or terminating) measured along the line of the street or

for a dead-end street or accessway, all the property between an intersecting street or other right-of-way and the dead-end of the street or accessway.

(LL) *Structural Alteration* – Modification of the size, shape, or height of a sign structure. Also includes replacement of sign structure materials with other than comparable materials, for example metal parts replacing wood parts.

(MM) *Temporary Sign* – A sign not permanently attached to a building, structure, or the ground.

(NN) *Vision Clearance Area* – Those areas near intersections of roadways and ingress and egress points where a clear field of vision is necessary for public safety.

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**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:

\* \* \*

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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:

\* \* \*

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## 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 1<sup>st</sup> and September 15<sup>th</sup>. Revegetation and soil stabilization must be accomplished no later than October 15<sup>th</sup>.

~~(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.

*Staff note: Staff is not proposing to delete or amend the exterior lighting standard within the Significant Environmental Concern-Significant Scenic Views (SEC-v). These standards seem to be working well and there is value in evaluating lighting impacts as seen from identified viewing areas as currently required in the SEC-v overlay. For example, it could be possible for a development high on a hill to have downward directed lighting which could expose views of the bulb as seen from an identified viewing area at a lower elevation.*

*Additionally, the visibility analysis standards are the core of the SEC-v regulatory program and significant modifications to this section of code was not envisioned as part of the Dark Sky project scope. Staff's intent is to adopt Dark Sky regulations which complement but do not conflict with existing SEC-v lighting standards and staff will re-evaluate this relationship after the Dark Sky provisions have been implemented for a period of time.*

## **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 a great deal of support for the dark sky regulatory concept when meeting with neighborhood associations across the county's entire rural jurisdiction.

The Planning Division would like to move this project to public hearing and asks the Commission for feedback considering the project purpose, desire for easy implementation and effective enforcement.

## **SECTION 6. ATTACHMENTS**

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

<sup>i</sup> [http://usatoday30.usatoday.com/news/nation/environment/2010-12-29-light-pollution\\_N.htm](http://usatoday30.usatoday.com/news/nation/environment/2010-12-29-light-pollution_N.htm) - accessed 2/25/15, 10:48am