What does the Dark Sky Overlay Zone mean for you?

Public Information Session ★ Thursday, October 24, 2019
Ventura County Planning Division ★ Ruchita Kadakia, Project Planner
Why did we Prepare this Ordinance?

- Community-generated project
- Benefits to the community
  - Views of night skies,
  - Maintain the existing rural ambience in Ojai
- Proximity to Los Padres National Forest

Benefits of Dark Skies

- 50% waste
- 10% glare
- 40% productive
Adoption Date: 
November 1, 2018

Sources: Esri, HERE, Garmin, USGS, Intermap, Increment P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community
Amendments to the Zoning Ordinance

◊ Added Definitions

◊ Technical terminology (lumens, Kelvin, foot-candles)
◊ Lighting components (Luminaire, Fully- and Partially-shielded lighting)

◊ Standards for the Dark Sky Overlay Zone

◊ The ordinance addresses the following two areas:

A. Dark Hours

B. Lighting Intensity, Color, Shielding and Direction
Existing Lighting (Sec. 8109-4.7.2)

◊ Effective one year after ordinance adoption (November 1, 2019)
  ◇ Direct lights downward, if possible; and
  ◇ Turn non-essential lights off during dark hours

◊ Special requirements apply to existing lighting in Commercial and Industrial zones for commercial and industrial uses 3 years after ordinance adoption (from November 1, 2021)
What is Essential Lighting?

◊ Lighting that is used for safety purposes and for circulation:
  ◊ Security lighting
  ◊ Illuminates walkways and driveways
  ◊ Illuminates a building entrance

◊ Allowed to remain on at all times, for both new and existing lighting
Exemptions (Sec. 8109-4.7.5)

- Lighting for Temporary Purposes:
  - Temporary construction lighting
  - Temporary emergency lighting
  - Temporary/intermittent outdoor nighttime lighting for agricultural uses, which are usual or customary
  - Temporary lighting by permit (film permits, etc.) or by use (outdoor events)

- Lighting for Signage

- Seasonal or Festive lighting

- Lighting outside of Planning Division authority:
  - Lighting for Wireless Communication Facilities (as required by Federal Aviation Administration)
  - Lighting required to comply with preemptive state or federal law

- Lights which are 60 lumens or less (including solar lights)

- Lighting on public / private streets
Prohibited Lighting (Sec. 8109-4.7.3)

- Perimeter lot lighting, except those used for safety/security
- Blinking, flashing, rotating, strobe lights
Components of the Overlay Zone (Sec. 8109-4.7.4)

1. Dark Hours
2. Shielded fixtures, directed downward
3. Lighting Color
4. Lumens (Lighting Intensity)
5. Security Lighting
6. Light Trespass Limits
7. Outdoor Recreational Facilities Lighting
8. Service Station Lighting
9. Maximum Allowable Height
10. Night lighting for enclosed Agricultural Operations

**DARK HOURS:**

From 10:00 p.m., or when people are no longer present, or close of business, whichever is latest, until sunrise
Components of the Overlay Zone

2. Shielded luminaires, directed downward
   ◊ All new outdoor lights shall be **fully-shielded** and directed downward
   ◊ Porch lights and under-eave lights may be **partially-shielded**
Fully-Shielded Luminaires

A luminaire constructed and installed in such a manner that **ALL** light emitted by the fixture is projected below the horizontal plane through the fixture’s lowest light-emitting part.
Components of the Overlay Zone

3. **Lighting Color**
   
   ◊ Max. 3,000 K

   \[ K = \text{Kelvin, a unit of measure to describe the hue of a light source (warmness or coolness)} \]

   ◊ *Exception* – Security Lighting for security cameras may have a cooler color temperature

   (i.e. higher than 3,000 K, to the minimum necessary)
KELVIN
(CORRELATED COLOR TEMPERATURE)

CORRELATED COLOR TEMPERATURE (CCT)

Warm White
- 2700-3000K
- Most similar to incandescents
- Inviting, relaxing

3000K

Bright White
- 3500-4100K
- Energetic, lively
- Good for kitchens workspaces

6500K
Components of the Overlay Zone

4. **Lighting Intensity (Lumens)**
   - Max. 850 lumens, except:
     - Security lighting (2,600 lumens max.); and
     - Outdoor recreational lighting
   - Lighting under 60 lumens (including solar lights) is exempt
<table>
<thead>
<tr>
<th>BULB</th>
<th>450 lumens</th>
<th>800 lumens</th>
<th>1100 lumens</th>
<th>1600 lumens</th>
<th>2600 lumens</th>
<th>5800 lumens</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED</td>
<td>6W</td>
<td>9-10W</td>
<td>13W</td>
<td>16-18W</td>
<td>24W</td>
<td>45W</td>
</tr>
<tr>
<td>CFL</td>
<td>8-9W</td>
<td>13-14W</td>
<td>18-19W</td>
<td>23W</td>
<td>40W</td>
<td>85W</td>
</tr>
<tr>
<td>Regular Incandescent</td>
<td>40W</td>
<td>60W</td>
<td>75W</td>
<td>100W</td>
<td>150W</td>
<td>300W</td>
</tr>
<tr>
<td>Halogen</td>
<td>29W</td>
<td>43W</td>
<td>53W</td>
<td>72W</td>
<td>150W</td>
<td>300W</td>
</tr>
</tbody>
</table>
Components of the Overlay Zone

5. Security Lighting

- Max. 2,600 lumens
- Use motion sensors between 850 and 2,600 lumens
- May exceed 3,000 Kelvin, as required by security camera system

**Existing** Security Lighting with any Kelvin or lumen levels may remain on during dark hours, even if no motion sensor is installed
Components of the Overlay Zone

6. Light Trespass Limits

◊ Light that falls beyond the property it is located on

*(Measured in foot-candles)*
# Light Trespass Limits

<table>
<thead>
<tr>
<th>Zone Types</th>
<th>Light Trespass Limits</th>
<th>(measured at property line emitting the light source)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Open Space (AE, OS, TP)</td>
<td>0.1 foot-candles</td>
<td></td>
</tr>
<tr>
<td>Rural &amp; Single-family/ Two-family Residential (RA, RE, RO, R1, R2)</td>
<td>0.1 foot-candles</td>
<td></td>
</tr>
<tr>
<td>Urban/Multi-family Residential (RPD)</td>
<td>0.2 foot-candles</td>
<td></td>
</tr>
<tr>
<td>Commercial and Industrial (C-O, C-1, CPD, M-1, M-2, M-3)</td>
<td>0.25 foot-candles, or as per approved permit (PD or CUP)</td>
<td></td>
</tr>
</tbody>
</table>

One foot-candle = light cast on a surface by a candle source one-foot in height, from a distance of one foot.
Components of the Overlay Zone

8. **Service Station Lighting**
   - Canopy lighting shall be fully-shielded and use flat lenses
   - No additional lighting allowed on columns
Components of the Overlay Zone

9. Maximum Height Allowance
   ◊ Attached to -
     ◊ Structures = 15 feet max.
     ◊ Fences = no higher than height of fence
   ◊ Freestanding –
     ◊ For walkways, driveways, or hardscaping – 2 feet max.
     ◊ All other freestanding – 20 feet max., unless specified by permit
Applicability
Commercial and Industrial Uses in Commercial & Industrial Zones

**EFFECTIVE NOVEMBER 1, 2019**

- **Essential lighting** to be directed downward, if possible
- **Existing non-essential** outdoor lighting:
  - Direct lights downward, if possible; and
  - Turn lights off during dark hours (when people are no longer present, or the business is closed, or after 10 p.m., whichever is latest)
Commercial and Industrial Uses in Commercial & Industrial Zones

**EFFECTIVE NOVEMBER 1, 2021**

- **Permitted Facilities** will be conditioned to comply with lighting standards within a reasonable time period after November 1, 2021, on approval of a minor or major modification of the underlying discretionary permit.

- **All outdoor luminaires (including essential lighting)** must conform with adopted standards.

- **Property owners can apply for extension:**
  - Planning Director approved
  - Demonstrate good cause (significant financial or other hardship)
Is my parcel in the Dark Sky Overlay Zone?

Check County View (GIS Viewer)
gis.ventura.org/countyview/

✧ Look for your parcel (by parcel number or address); for a “/DKS” suffix at the end of the zone for your parcel; OR

✧ Turn on “Ojai Valley Dark Sky” Layer added under Land Use/Zoning/Overlay Zones
Understanding the Ordinance


- Public Information Brochures

- Story Map

- Frequently Asked Questions

Online interactive GIS Story Map

Easy to understand brochures, explaining applicability, standards and lighting terminology
Image of the Milky Way from the Ventura River bottom
(provided by Lindsay Thomson, an Oak View resident)
Questions?

Contact: Ruchita Kadakia, Project Planner ★ Ruchita.Kadakia@ventura.org

https://www.vcrma.org/ojai-valley-dark-sky-ordinance