



**Planning Commission  
Memorandum**

**Community & Economic Development Department**

3900 Main Street, Riverside, CA 92522 | Phone: (951) 826-5371 | [RiversideCA.gov](http://RiversideCA.gov)

**Planning Division**

**PLANNING COMMISSION HEARING DATE: MAY 31, 2018  
AGENDA ITEM NO. 2**

**SUMMARY**

<b>Case Numbers</b>	P18-0290
<b>Request</b>	Consideration of a comprehensive update to Chapter 19.556 – Lighting of the Zoning Code (Title 19). Proposed amendments include, but are not limited to: 1) re-organization and update to bring the existing Code into compliance with State laws and technological advancements; 2) new or modified definitions related to lighting; 3) creation of lighting zones; 4) new design and development standards; 5) new procedures for reviewing lighting plans; and 6) establishing prohibited types of lighting.
<b>Applicant</b>	City of Riverside, Community & Economic Development Dept.
<b>Project Location</b>	Citywide
<b>Ward</b>	Citywide
<b>Staff Planner</b>	Christina Bartscher, AICP, Associate Planner; 951-826-2393; <a href="mailto:cbartscher@riversideca.gov">cbartscher@riversideca.gov</a>

**RECOMMENDATIONS**

Staff recommends that the Planning Commission recommend the following to the City Council:

1. Accept the Negative Declaration prepared for the project as complying with the California Environmental Quality Act (CEQA);
2. Find that, based on the Negative Declaration that has been prepared for the project, the project will not have a significant negative effect on the environment.
3. Approve Planning Case P18-0290 (Zoning Code Amendment), as shown in Exhibit 3 of the Planning Commission staff report.

**AUTHORITY**

Pursuant to City Charter Article VIII, Section 806, and Riverside Municipal Code (RMC) Section 19.050.030, the Planning Commission is responsible for reviewing and making a recommendation

to the City Council on the proposed Zoning Code Amendment. Should the Commission choose to deny the project, the proposal will only move forward to the City Council if appealed.

## PROPOSAL

The City's Community & Economic Development Department is proposing a Riverside Municipal Code (RMC) amendment to Title 19 (Zoning Code), which updates development regulations pertaining to outdoor lighting. Specifically, the amendment will be a comprehensive update to RMC Chapter 19.556 – Outdoor Lighting. The revisions will:

- 1) Bringing the existing Code into compliance with current State laws and lighting technologies;
- 2) Provide clarity related to existing lighting definitions, and add new definitions, including those associated with newer technologies;
- 3) Establishes lighting zones in which different levels of maximum light intensity would be allowed;
- 4) Implements new development standards for all lighting projects, including new construction and renovations;
- 5) Creates new procedures for staff to review lighting plans; and
- 6) Establishes a list of lighting types that are prohibited.

## BACKGROUND

The proposed amendments to the existing Zoning Code's outdoor lighting standards were initiated to address three objectives, including: (a) compliance with current California Code of Regulations Title 24 Part 6, Building Energy Efficiency Standards and Title 24 Part 11, CALGreen sustainability standards; (b) compliance with a settlement agreement with Friends of the Hills, which requires the City to adopt a "dark sky ordinance"; and (c) consistency with an effort by Riverside Public Utility (RPU) to convert all public street lights in the City from high-pressure sodium streets (HPS) to more efficient LED street lights.

### **Energy Efficiency Standards:**

California Title 24 Part 6 – Building Energy Efficiency Standards is designed to ensure energy efficiency in buildings and associated sites. Among other things, the Energy Standards establish requirements for outdoor lighting design and installation, whether attached to buildings, poles, structures or self-supporting, including in hardscape areas; lighting for building entrances, sales and non-sales canopies; lighting for all outdoor sales; and lighting for building facades.

The Energy Standards set outdoor lighting "power allowances" for each project based on lighting zone and project type. The standards allow enough lighting power to provide appropriate lighting consistent with ambient conditions in each lighting zone, based on project type thereby preventing excessive lighting. These standards are based on recommended practices of the Illuminating Engineering Society and the American National Standards Institute.

The premises of the Energy Standards is based on (1) the human eye can naturally adjust to darker conditions; and (2) the human eye is prevented from adjusting to darker conditions when a bright light constricts the retina. Because most development projects today are designed with more

lighting than is needed, the human eye is unable to see into the darkness beyond the project's bright light, which leads to the addition of more light to see farther. Additionally, one over-bright project leads to another, as an adjacent property needs to add more lighting to compensate for the "night blindness" created by the first project, which ultimately leads to over-bright areas and significant amount of wasted energy. To reverse the trend of over-bright construction, the Energy Standards will limit the amount of light power that can be used for each project. The amount of power allowance is dependent on project type, and which "Lighting Zone" the project is located.

The Energy Commission has established outdoor power allowances and development standards for five different "Lighting Zones" (ranging from 0 through 4). Lighting Zone 0 (zero) has the lowest power allowance, with increasing power allowed in Lighting Zones 1, 2, 3, and 4. The Energy Commission sets default Lighting Zones with boundaries based on the U.S. Census Bureau's urban and rural areas, as well as boundaries of wilderness and park areas.

The City of Riverside is completely contained within an urban boundary, per the U.S. Census. Therefore, the entire City defaults to Lighting Zone 3, which permits medium to high lighting power allowances, with additional restrictions for government designated parks, recreation areas, and wildlife preserves. However, local jurisdictions may deviate from the default zones, provided the changes are submitted to the Energy Commission. The City's proposed amendments seek to establish lighting zones that better relate to local conditions and desired aesthetics, such as preserving the natural dark sky.

#### **Preserving the Dark Sky:**

In 2008 the City of Riverside and *Friends of the Hills* entered into a settlement agreement, which required the City to amend General Plan 2025 and parts of the Municipal Code. Among other items, the agreement obligates the City to amend Title 19 to add "night-time sky" regulations, which would reduce light pollution, and include lighting restrictions recommended by the Mount Palomar Observatory.

While the City's proposed amendments address Title 24 Building Energy Efficiency Standards, they also seek to fulfill the 2008 agreement with the Friends of the Hills. The proposed amendments therefore sets forth standards to ensure lighting is adequate for safety, security and commerce; while preserving the naturally dark night sky through the mitigation of artificial sky glow, and preventing glare and light trespass.

#### **Riverside Public Utilities Street Lighting Conversion:**

Riverside Public Utility (RPU) oversees the street lighting system within the City. On September 6, 2016, the City Council approved a Citywide Light Emitting Diode (LED) Conversion Program, which will convert all public streetlights from high-pressure sodium streets (HPS) lights to more efficient LED streetlights. These new lights provide better light quality and safety; energy efficiency and cost savings; and reduce greenhouse gas emissions. While public street lights are not within the purview of the Zoning Code, updates to the Zoning Code (Chapter 19.556 Lighting) was an item identified in the Scope of Work for the Citywide LED Conversion project. This is in part because LED lighting and mitigating over-bright development reduces energy consumption and thereby reduces the amount of energy RPU needs to produce or purchase. The proposed amendments and staff report have been drafted and reviewed with the assistance of James Benya, PE of Benya Burnett Consultancy as part of the contract agreement with RPU.

The proposed amendments to RMC Section 19.556 – Outdoor Lighting integrate LED lighting technologies and benefits, including recommendations from a February of 2016 Council on Science and Public Health report that concluded LED lighting with a "color temperature" of 3000

Kelvin or lower discourages blue light emissions, glare, and other detrimental human and environmental effects.

## DISCUSSION

The following is an overview of the proposed changes to Chapter 19.556 – Outdoor Lighting:

### **Reorganization and Update:**

The proposed amendment is a complete redaction of the existing Chapter, which currently only regulates height restrictions, maximum permitted lighting and shielding requirements. The proposed ordinance seeks to expand the regulations to: create lighting zones that maintain consistent ambient lighting levels, per California Title 24; adopt specific development standards for each lighting zone; updated definitions and terminology to be consistent with changes in technology; establish new or modified lighting plan submittal requirements; and define prohibited lighting types.

### **Lighting Zones:**

Lighting Zones are proposed for the City as follows:

- Lighting Zone 0 (Zero): Includes undeveloped areas of parks, recreation areas, and wildlife preserves. These areas are undeveloped, or intended to be preserved in a natural state, which requires little or no exterior light at night.
- Lighting Zone 1 (One): Includes developed portions of parks, recreation areas, wildlife preserves, and the areas within the Mt. Palomar Observatory. The boundaries of these areas are as depicted in the General Plan. These areas are suitable for low levels of exterior lighting at night.
- Lighting Zone 2 (Two): Includes all areas of the City that are zoned RA-5, RC and RR. These areas are suitable for modest levels of exterior lighting at night.
- Lighting Zone 3 (Three): Includes all areas of the City not contained within Lighting Zones 0, 1 or 2. These areas are suitable for medium to high levels of exterior lighting at night.

### **Development Standards:**

In addition to the standards established by the Energy Commission, the proposed changes apply additional development standards to protect the night sky from light pollution. These development standards are tailored to the individual lighting zones. Maximum lumens, mounting heights, and allowable light trespass are established for each lighting zone designation.

### **Definitions:**

Technological advancements in the lighting industry, and energy cost savings, have boosted the conversion of high-pressure sodium bulbs to light emitting diodes (LED). The definition section has been updated to reflect the changes in technology and associated terminology.

### **Lighting Plan Review:**

The proposed amendment changes the process for lighting plan submittals. In accordance with Title 24 Energy Efficiency Standards, lighting plans need to be accompanied by a signed certification documentation to ensure compliance.

### **Prohibited Lighting:**

A section has been proposed to clarify types of lighting that are prohibited. This is necessary to address lighting types that can pose a danger to the public, or be a nuisance for nearby properties. The changes include the prohibition of dynamic or moving lights, aerial laser lighting, and luminaires in excess of 50,000 lumens.

## **ENVIRONMENTAL REVIEW**

Planning Division Staff has determined that this project is will not have a significant negative effect on the environment, and a draft Negative Declaration (ND) has been prepared. This determination was made after conducting an initial study, which concluded that the proposed project consists of amendments to the lighting standards intended to reduce inappropriate or excessive use of artificial light thereby reducing overall effects of light pollution.

## **PUBLIC NOTICE AND COMMENTS**

Pursuant to CEQA, a 20-day minimum review and comment period was provided for the Draft Negative Declaration (ND). The draft ND comment period was posted on May 4, 2018, and will end at 5:00 PM on May 25, 2018. A Notice of Intent was mailed to various Federal, State, regional, and local government agencies and other interested parties. The Notice of Intent was also published as a 1/8<sup>th</sup> page ad in the Press Enterprise. All comments received on the draft ND will be provided to the Commission for consideration.

## **APPEAL INFORMATION**

Actions by the City Planning Commission, including any environmental finding, may be appealed to the City Council within ten calendar days after the decision. Appeal filing and processing information may be obtained from the Planning Department Public Information Section, 3rd Floor, City Hall.

## **EXHIBITS LIST**

1. Staff Findings
2. Existing Lighting Ordinance
3. Proposed Lighting Ordinance Text Amendments
4. 2008 Settlement Agreement with the Friends of the Hills
5. Report of the Council on Science and Public Health
6. CEQA Document (Initial Study and Negative Declaration)

---

Prepared by: Christina Bartscher, Associate Planner

Reviewed by: Jay Eastman, Principal Planner

Approved by: Rafael Guzman, Community & Economic Development Director



*EXHIBIT 1 – STAFF FINDINGS*

**Case Numbers:**        **P18-0290** (Zoning Code Text Amendments)

***Zoning Code Amendment Findings Pursuant to Section 19.810.040***

- a. The proposed Zoning Code Text Amendments are generally consistent with the goals, policies, and objectives of the General Plan because this proposal will be consistent with the. As a result of the proposed amendments, Title 19 will be revised to add "night-time sky" regulations to address light pollution consistent with the General Plan Policies OS-2.5, PF-6.3, PF-6.4 and PF-6.5.
- b. The proposal Zoning Code Text and Map Amendments will not directly adversely affect surrounding properties because the proposed amendment provides better protection to surrounding properties, by placing restrictions on the types of lighting and the reduction of glare and light pollution. In compliance with the California Environmental Quality Act (CEQA), a Draft Negative Declaration has been prepared to analyze potential environmental impacts as a result of the project. The Negative Declaration concluded that the project could not have a significant effect on the environment.
- c. The proposal promotes public health, safety, and general welfare; it serves the goals and purposes of the Zoning Code; and the proposed Zoning Code Text Amendments will incorporate recommendations from a report by the Council on Science and Public Health, which are intended to reduce impacts on humans and the environment.