



Los Angeles County  
Department of Regional Planning

*Planning for the Challenges Ahead*



Richard J. Bruckner  
Director

October 27, 2011

TO: Pat Modugno, Chair  
Curt Pedersen, Vice Chair  
Esther L. Valadez, Commissioner  
David W. Louie, Commissioner  
Harold V. Helsley, Commissioner  
Curt Pedersen, Commissioner

FROM: *KBD* Karen Simmons, Supervising Regional Planner  
Ordinance Studies Section

**SUBJECT: PROJECT NO. R2011-00425-(1-5)  
CASE NO. RADVT201100006/ENV CASE NO. T201100135  
AMENDMENT TO TITLE 22 (ZONING ORDINANCE) REGARDING  
PROPOSED RURAL OUTDOOR LIGHTING DISTRICT ORDINANCE**

**Agenda of November 9, 2011 Agenda Item No. 6**

**INTRODUCTION**

The Regional Planning Commission heard Project Number R2011-00425, the Rural Outdoor Lighting District Ordinance on September 21, 2011. At the close of the public hearing, the Commission continued the public hearing for 45 days. The public hearing was continued to provide additional time for outreach in the Third Supervisorial District and provide follow-up on questions including:

- Provide further definition of the rural area located in the southwestern portion of the County (South Diamond Bar), the current uses in that area, and notify the property owners about the project;
- Contact the Coastal Commission regarding areas proposed to be modified from State Lighting Zone 3 to State Lighting Zone 2 that are within the Malibu Coastal Zone;
- Add shielding requirement to motion sensor lighting and research manually operated motion sensors;
- Define effective date, opposed to "effective date of the Ordinance";
- Areas of Pepperdine will need to be modified from State Lighting Zone 2 (Rural) to State Lighting Zone 3 (Urban) and show as a different color on the Areas to be Modified Map;
- Further define what is "beneficial" for the Director of Public Works to require street lighting;

- Provide options on how residents can make their nonconforming lighting comply with the Ordinance;
- Redefine the term “abandoned use” so that businesses and residential uses that have been unable to lease their spaces due to the economy are not considered abandoned;
- Move the Nonconforming Lighting Section forward to the Applicability Section, so it's clear that existing outdoor lighting needs to be in conformance with the Ordinance;
- Concern expressed over the cost to facilities conforming within the Ordinance within three years, as required by the Nonconforming Lighting Section of the Ordinance. Do outreach to those that would actually be paying for the new lighting, including major property owners, project managers and developers; and
- The Rural Outdoor Lighting Ordinance should also emphasize energy savings and the “public good” of complying with the Ordinance.

This report builds on the staff report that was distributed to the Commission for the September 21, 2011 public hearing. If you require an additional copy of the September 21, 2011 report please contact the Ordinance Studies Section.

### **Updates**

#### **Rural Area within East Service Area**

The rural area within the East Service Area is bounded by the 57 Freeway to the west, the City of Diamond Bar to the north, San Bernardino County to the east, and Orange County to the south. The area is referred to as South Diamond Bar. There are 21 parcels within this area, with five property owners; all property owners were individually notified of the proposed project. Most of the area is within the Tonner Canyon – Chino Hills Significant Ecological Area. The area includes the Firestone Boy Scout Reservation and parcels included in the proposed AERA Energy Development Project. Staff met with representatives from AERA Energy to discuss any concerns they might have about the proposed Ordinance. AERA had no concerns with the proposed Ordinance, but want to be notified of any future revisions to the Ordinance.

In addition, on further review of this area, there is a conflict between what the Department is considering Rural and the State's Lighting Zone. A small portion along the northern portion of the area will need to be modified from the State's Lighting Zone 3 (Urban) to Lighting Zone 2 (Rural). This area was added to the List of Outdoor Lighting Zones as Item No. 45 and added to the Modification Map.

#### **California Coastal Commission**

Staff forwarded a letter to the California Coastal Commission with notification of the project on September 27, 2011. No comments have been received from the Commission.

#### **Pepperdine University**

Pepperdine University is currently planning future development on their campus. These areas of future development have been removed from the Rural Outdoor Lighting District. However, part of the University is classified as rural within the State's Lighting Zones. Along with the other requests to the Energy Commission, staff will propose modifying this

area from Lighting Zone 2 (Rural) to Lighting Zone 3 (Urban). This area was added to the List of Outdoor Lighting Zones as Item No. 47 and added to the Modification Map in blue.

#### Shielding and Shading Existing Outdoor Lighting

Residents can shield or shade their existing outdoor lights so they don't shine into neighboring properties or up into the sky. This is a less expensive way to comply with the Ordinance, opposed to having to replace the fixtures. Staff has prepared a handout "Guidelines for Good Outdoor Lighting Practices" that provides sources for shields and shades.

#### Emphasize Energy Savings

Although a purpose of the proposed Ordinance is to conserve energy and resources, this issue was not stressed in the previous staff report or presentation. Retrofitting lighting is replacing parts of a lighting fixture or lighting system with parts that make it use energy more efficiently. A lighting upgrade is any plan that reduces the lighting system's energy use. Energy savings realized over time can be significant enough to not only pay for the new equipment, but produce a return on the investment.

While manufacturers and professional lighting designers have computer software that calculates the economic benefits of an upgrade, it pays to understand the principles. Utility companies bill their customers in a variety of ways, including an energy consumption charge, demand charge, power factor charge, fuel adjustment charge and other charges. The easiest way to determine utility savings is to understand energy consumption.

Energy Consumption (kWh) = Input Watts (kW) x Time (hours operated in a given year)

To reduce energy consumption we can either reduce the input wattage or reduce the hours of operation. Input wattage can be reduced by replacing lamps and ballasts with more-energy-efficient counterparts or outright removal of lamps and ballasts. The hours of operation can be reduced using sophisticated controls and other methods.

#### **Example**

Let's look at two purely fictitious lighting systems, A and B. Lighting System A is the existing system and Lighting System B is a proposed retrofit system which simply includes more-energy-efficient lamps and ballasts. They produce comparable light output.

	<b>Lighting System A</b>	<b>Lighting System B</b>
Input Watts/Fixture	175	100
Hours of Operation/Year	3,000	3,000
Energy Consumption/Year (Wh)	525,000 Wh	300,000 Wh
÷1,000 to get kWh	525 kWh	300 kWh
Energy Savings/Year (kWh)		225 kWh
Utility Cost/kWh	\$ 0.10	\$ 0.10
Energy Savings/Year (\$)		\$22.50

Number of Fixtures Retrofitted	100	<u>100</u>
Total Energy Savings/Year (\$)		\$2,250.00

We save \$22.50 per year by replacing the lamps and ballasts in this fixture. For the 100 fixtures, we save \$2,250 per year. Note that additional energy savings can be calculated from the air conditioning system, which now works less hard because less heat is produced by the lighting system. We could have installed occupancy sensors or some other controls that would reduce the hours of operation. If we installed new controls in this case and reduced the operating hours from 3,000 per year to 2,300 per year, we would produce an additional \$700.00 in energy savings, or a total of \$2,950 per year.

A simple version of this description of energy savings was added to the "Guidelines for Good Outdoor Lighting Practices" handout.

#### Amendments to Modifications to Lighting Zones Map

Since the last public hearing on September 21, 2011, four modifications have been made to the Modifications to Lighting Zone Map. As previously discussed in this report, South Diamond Bar was added as Item No. 45 and Pepperdine University was added as Item No. 47. In addition, representatives from unincorporated Westhills requested that area be included in the Rural Outdoor Lighting District, that area was added as Item No. 46. Also, Mt. Calabasas was recently incorporated, that area was removed from the description of Item No. 44.

#### **Modifications to Draft Ordinance**

##### Abandoned Use

The proposed draft ordinance applies to new lighting, major additions, replacement lighting and resumption of use after abandonment. Abandoned use was defined in the first draft of the ordinance as "*If the principal use of the property has not been in use by the owner or tenant for a period of six months, excluding temporary or short-term interruptions for the purpose of remodeling or maintaining the facility, the use shall be deemed abandoned.*" This definition was proposed as it's consistent with the Model Lighting Ordinance and other jurisdictions. However, the Commission raised concerns over this definition. In this economy retail and residential units can remain vacant for six months or longer because of the owner being unable to lease the space. A more general definition should be provided.

For consistency, staff verified Public Works' definition of abandonment. Public Works does not define abandonment, but the Building Ordinance refers to dictionary definitions for words within the ordinance that are not defined. Therefore, staff recommends the following definition for abandoned use: "*A property where operations are discontinued and deserted by the property owner without any regard of resuming the use or occupying the structure.*"

##### Applicability

The first draft of the ordinance has the Applicability Section 22.44.530 at the beginning of the ordinance. However, the Nonconforming Lighting Section 22.44.580 that discusses existing lighting that needs to comply is at the end of the ordinance. As this is part of the applicability of the ordinance, nonconforming lighting has been moved forward to be in the Applicability Section.

### Nonconforming Lighting

The first draft of the ordinance requires all outdoor lighting in use on the effective date of the ordinance that does not meet the requirements of the ordinance shall be removed or made to comply within six months if the light causes light trespass and within three years if the light does not cause light trespass. The Commission raised concerns over the cost to property owners of large facilities to replace or upgrade all their outdoor lights.

Staff consulted with several consultants, permit expeditors, and property owners regarding this provision and if it is cost prohibitive. Discussion included permitting projects where the property owner would incur “significant costs” to bring the entire property into compliance could have temporary relief from the Ordinance. The applicant would work with the Director to develop a progress schedule and establishes a time period to be brought into compliance with the Ordinance. However, when this option was further discussed with staff there are additional questions including, what is a “significant cost” and who determines that, this would be a discretionary review by the Director – so what are the findings, what is the procedure, and is there a cost to the applicant?

Staff also consulted with the County’s Internal Services Department (ISD) regarding retrofitting existing outdoor lighting. Their retrofits are based upon energy savings and proper light output based upon Illuminating Engineering Society of North America (IES) standards for outdoor lighting. ISD concurred that replacing outdoor lighting in government facilities will be costly. Funds would need to be identified from some source to pay for the retrofits.

In further discussions with staff, it was decided that nonconforming lighting should only apply to residential and agricultural properties, or any outdoor light that shines onto a residential or agriculture property. The cost to make these fixtures conforming is not costly and will address comments from residents complaining about their neighbors lights shining onto their property.

### Motion Sensors

Added that motion sensor fixtures shall be fully shielded.

### Effective Date of the Ordinance

Within the Ordinance, wherever it states “on the effective date of this Ordinance” will be replaced with the actual effective date of the Ordinance.

### Outreach

Staff presented to the Las Virgenes Homeowner’s Association Federation on October 19, 2011. The Federation is an organization of homeowner’s associations in the Santa Monica Mountains. The Federation was generally pleased with the draft ordinance, but had questions about: requirements for street lighting, if the specifications can be more specific, rather than having the Department of Public Works have the discretion on where to place street lights; enforcement of the Ordinance; maximum height of fixtures; Pepperdine rural and urban areas; lighting for film production, and concern over public facilities sometimes being the worst offenders of light pollution.

### **Public Comments**

Staff has received two additional public comments from the last public hearing. One on the letters was from a Canyon Country resident who forwarded a newspaper article about two neighbors constant fighting that culminated in the shooting death of one and the felony arrest of the other. One of the reasons for the fight between the two of them was one of the neighbors installed floodlights shining into the back yard of the other neighbor's yard.

A second letter was from a member of the Las Virgenes HOA Federation. The resident is in support of the ordinance, but had comments regarding the placement of street lighting, and the type of lamps to be use.

### **STAFF RECOMMENDATION**

Staff recommends that the Regional Planning Commission adopt the attached resolution and forward Project No. R2011-00425-(1-5) to the Board of Supervisors for consideration in a public hearing.

### **SUGGESTED MOTION**

**“I MOVE THAT THE REGIONAL PLANNING COMMISSION ADOPT THE ATTACHED RESOLUTION AND FORWARD PROJECT NO. R2011-00425-(1-5) TO THE BOARD OF SUPERVISORS FOR CONSIDERATION IN A PUBLIC HEARING.”**

Attachments:

- Revised Draft Rural Outdoor Lighting District Ordinance\_tracked
- Revised Draft Rural Outdoor Lighting District Ordinance
- List of Changes to Outdoor Lighting Zones
- Modifications to Lighting Zone Map
- Comment letters
- Guidelines Handout