

OCEANSIDE COMMUNITY LIGHTING STANDARDS

FOR PUBLIC AND PRIVATE PROPERTY

Introduction

Lighting affects our quality of life by reducing the visibility of night skies, and by negatively impacting wildlife. Many members of the Oceanside community cherish the dark night skies that allow stargazing that cannot be done in more populated areas. The Oceanside Rocks are a National Wildlife Refuge for a number of species of seabirds that are negatively impacted by light.

In accordance with the Oceanside Community Plan of 2018, section 4.7, and the Community plan review Section 11.2.a, Oceansiders seek to reduce the intrusion of harsh lighting. In 2010, the ONA submitted a draft lighting ordinance to Tillamook County for adoption in Oceanside zones under which excessive and intrusive lighting would be curbed. The initiative was prompted in part by a report from The Seabird Aware Project (see Appendix A), which illuminated concerns about the harmful effects of night light on seabirds, thousands of which inhabit the nearby Three Arch Rocks Wildlife Refuge. Similarly, the U.S. Fish & Wildlife Service noted the risks to wildlife associated with night lighting and requested cooperation from local communities to suppress it. The county took no action on the proposed ordinance.

ONA continues to support lighting regulation as one of its highest priorities and in this Plan reaffirms its application for the county to adopt that ordinance or alternatively to augment the current Oceanside ROS “Standards” to include outdoor lighting standards that will prohibit or curtail unshielded or intrusively bright lights in order to prevent light pollution, lighting trespass and skyglow to the greatest extent practicable.

Sections:

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Section 1.0 Purpose

The purpose of these lighting standards is to provide regulations that:

- Preserve and enhance the view of the dark sky.
- Protect wildlife from light pollution.
- promote health, safety, security, and productivity.
- protect natural resources.

The provisions of this chapter are intended to control glare and light trespass. It is the intent of this chapter to provide standards for appropriate lighting practices and systems that will enable people to see essential detail in order that they may undertake their activities at night, facilitate safety and security of persons and property, and curtail the degradation of the nighttime visual environment.

Section 2.0 Definitions

The following terms have the following definitions for purposes of this chapter:

A. “Accent lighting” means any luminaire that emphasizes a particular object or draws attention to a particular area for aesthetic purposes.

B. “Cut-off angle” (of a luminaire) means the angle, measured from the lowest point between a vertical line from the center of the lamp extended to the ground and the first line of sight at which the bare source is not visible.

C. “Fixture” (also called a “luminaire”) means a complete lighting unit including the lamps, together with the parts required to distribute the light, to position and protect the lamps, and to connect the lamps to the power supply.

D. “Foot-candle” means a measure of illuminance or a measure of how bright a light appears to the eye. One foot-candle is equal to one lumen per square foot. As an example, a typical sixty-watt incandescent lamp (eight hundred forty lumens) produces an illuminance of 0.1 foot-candles at a distance of about twenty-five feet.

E. “Lamp” means the light-producing source installed in the socket portion of a luminaire.

F. “Light pollution” means general sky glow caused by the scattering of artificial light in the atmosphere and resulting in decreased ability to see the natural night sky.

G. “Light trespass” means any light emitted by an indoor or outdoor luminaire that shines directly beyond the property on which the luminaire is installed, or indirectly shines beyond the

property on which the luminaire is installed at a brightness (illuminance) that exceeds 0.1 foot-candles at the property line.



H. Luminaire. See definition for “fixture” (subsection C of this section).

I. “Outdoor lighting fixture” means a luminaire outside of an enclosed building or structure or any luminaire directed such that it primarily illuminates outdoor areas.

J. “Shielding” means that no light rays are emitted by a fixture above the horizontal plane running through the lowest point of the fixture.

K. “Spotlight” means any lamp that incorporates a reflector or a refractor to concentrate the light output into a directed beam in a particular direction.

Section 3.0 Applicability

A. All outdoor lighting fixtures installed on private, public or commercial property shall comply with these standards. ~~Indoor lighting that creates a light trespass shall also comply with these standards.~~

Types of outdoor lighting to which this chapter applies include, but are not limited to, lighting for:

1. Buildings and structures including, but not limited to, overhangs and canopies.
2. Parking lot lighting.

3. Landscape lighting.
4. Lighting on docks and piers.
5. Street lighting.

Section 4.0 Exemptions

The following are exempt from the provisions of this chapter:

- A. Traffic control signals and devices.
- B. Street lights installed prior to the effective date of the ordinance codified in this chapter; provided, that when a street light fixture becomes inoperable, any replacement street light fixture shall be subject to the provisions of this chapter.
- C. Temporary emergency lighting (i.e., fire, police, repair workers) or warning lights.
- D. Moving vehicle lights.
- E. Navigation lights (i.e., radio/television towers, docks, piers, buoys) or any other lights where state or federal statute requires lighting that cannot comply with this chapter. In such situations, lighting shall be shielded to the maximum extent possible, and lumens shall be minimized to the maximum extent possible, while still complying with state or federal statute.
- F. Public sports and recreational facilities.
- G. Seasonal decorations do not have to be shielded; provided, that they do not have a brightness of more than 0.1 foot-candles at the property line on which they are installed.
- H. Outdoor lighting approved by the Oceanside Neighborhood Association for temporary or periodic events (e.g., fairs, nighttime construction).

Section 5.0 General standards

The following general standards shall apply to all nonexempt outdoor lighting fixtures and accent lighting:

- A. All light trespass is prohibited.
- B. Outdoor and indoor lighting fixtures and accent lighting must be shielded and aimed downward and shall be installed at the minimum height necessary. Examples of acceptable and unacceptable light pollution control shielding are shown in Figures 1 through 4 in Appendix B.

The shield must mask the direct horizontal surface of the light source. The light must be aimed to ensure that the illumination is only pointing downward onto the ground surface, with no escaping direct light permitted to contribute to light pollution by shining upward into the sky.

C. All outdoor lighting fixtures and accent lighting shall be designed, installed, located and maintained such that light trespass is nonexistent (see Appendix B, Figure 3).

D. Outdoor lighting fixtures and accent lighting shall not directly illuminate the beach, ocean or public waterways, unless it is a navigational light subject to state or federal regulations.

E. Accent lighting shall be directed downward onto the illuminated object or area and not toward the sky or onto adjacent properties (see Figure 4). Direct light emissions of such accent lighting shall not be visible above the roof line or beyond the building, structure, or object edge.

F. Spotlighting on landscaping and foliage shall be limited to one hundred fifty watts incandescent (two thousand two hundred twenty lumens output).

~~G. All lighting fixtures must use the most energy efficient lighting technology available at the time of installation.~~

~~H. All Outdoor lighting fixtures must be motion actuated wherever possible. However, this does not exempt them from the rules of light trespass.~~

Section 6.0 Prohibited

A. The following fixtures (luminaires) are prohibited for exterior lighting:

1. Searchlights for any purpose other than temporary emergency lighting or as allowed by a special event license.
2. Laser lights or any similar high-intensity light for outdoor use or entertainment, when projected above the horizontal plane.
3. Quartz lamps.
4. Mercury vapor lamps.
5. Sodium vapor lamps.

Section 7.0 Submittals

All building permit applications that include the installation of outdoor lighting fixtures shall demonstrate compliance with the requirements of this chapter by indicating the location and type of lighting used on the site plan submitted with the building permit application.

Section 8.0 Reserved for future use

Appendix A. Coastal Light Pollution and Wildlife

Coastal light pollution (caused by artificial lighting) has a negative impact on many seabirds, including some species that are already experiencing population declines on the Northern Oregon Coast. In the dark of night, seabirds use their keen senses and light from the moon and stars to navigate, find food, tend their nests, and avoid predators. Mariners and scientists have observed that bright lights from vessels or land can attract and disorient seabirds, causing injury or death - especially on moonless or foggy nights.

Drawn to or distracted by lights, seabirds can fly onto decks or land where they may be trapped, injured, or killed. Bright lights can illuminate nesting colonies on rocky coasts and islands, causing problems tending nests, abandonment of eggs or chicks, and increased predation by gulls or owls. Lights can distract birds from feeding, navigating, and other vital activities.

Seabirds are often active at night, which allows them to avoid natural avian predators. Seabirds of the Procellariiforms order, which includes shearwaters, petrels and albatross, are especially reliant on nocturnal cover during their breeding and nesting season, when evasion of predators such as gulls and raptors is essential. Fledgling birds can be lured to artificial lighting as they attempt their first flights out to sea. If grounded, they are unlikely to become airborne again and often succumb to starvation and predation. Even fledglings that are not grounded may experience detrimental effects as they become distracted by artificial light sources and circle them for many hours reluctant to fly out into the open darkness. This activity carries with it energetic costs that may also have serious consequences for fledgling survival (BirdLife International, 2012).

Examples of seabirds in the Procellariiforms order include Laysan albatross, Black-footed albatross, Mottled petrel, Pink-footed shearwater, Flesh-footed shearwater, Buller's shearwater, and Short-tailed shearwater. Additional species include the Sooty shearwater, which is suffering severe population declines in the eastern Northern Pacific, and the Fork-tailed storm petrel and Leach's storm-petrel, both of which are designated State of Oregon Conservation Strategy species. *Strategy Species* are defined as having small or declining populations, are at-risk, and/or are of management concern. (Oregon Department of Fish & Wildlife, 2021).

Reducing coastal light pollution, including removing excessive illumination, reducing light intensity and eliminating unnecessary skyward and seaward light projection, is an important part of supporting vulnerable seabird populations.

Bibliography:

BirdLife International (2012). Light pollution has a negative impact on many seabirds including several globally threatened species. Downloaded from <http://www.birdlife.org> on 12/05/2021

Oregon Department of Fish & Wildlife (2021). Oregon wildlife species. <https://myodfw.com/wildlife-viewing/species/loons-and-grebes> on 5/10/202

Appendix B. Figures of acceptable shielding and direction of outdoor light fixtures.

The following four figures illustrate acceptable and unacceptable outdoor lighting fixtures in the village:

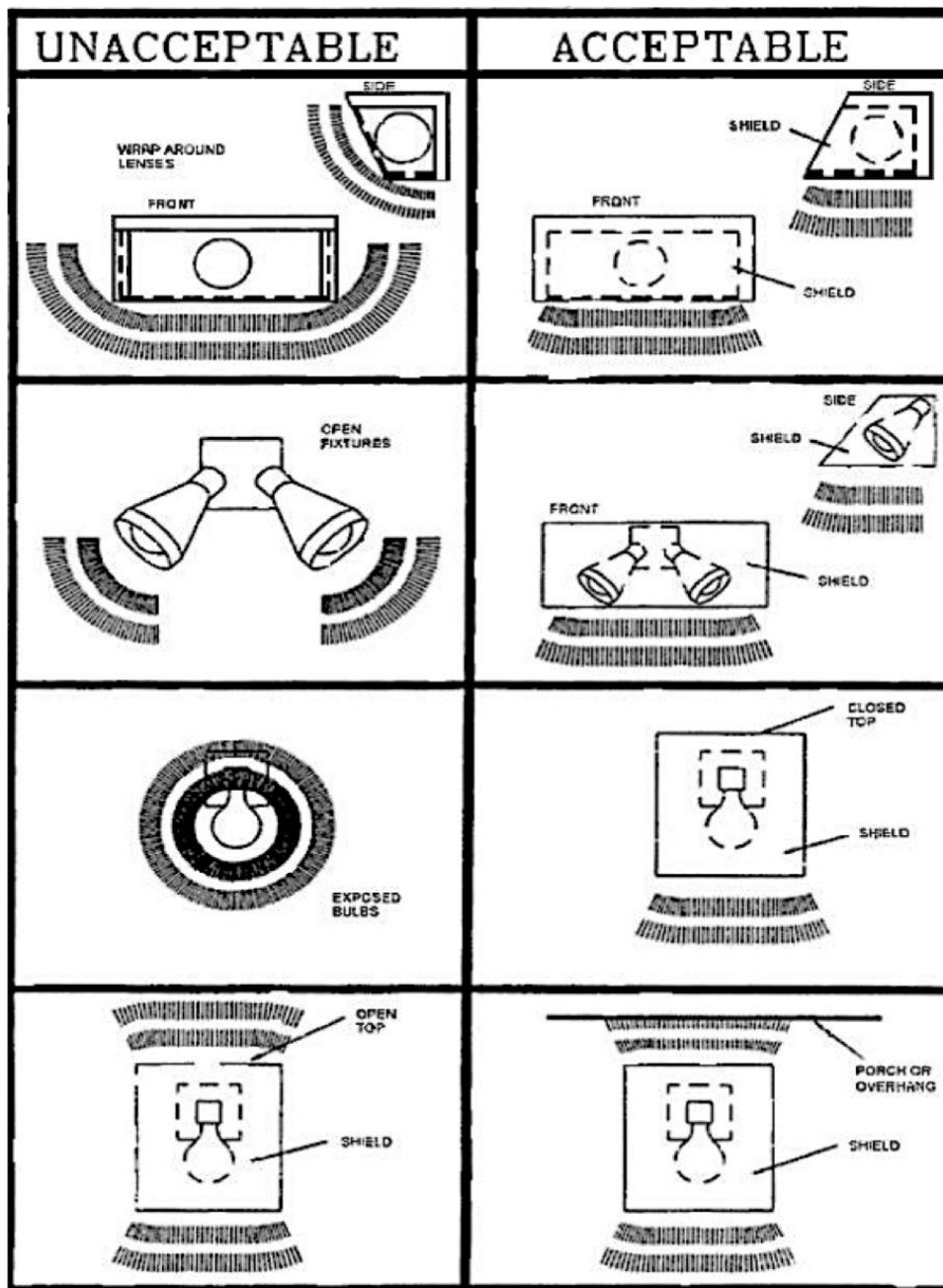


Figure 1: Wall-Mounted Lighting Fixtures

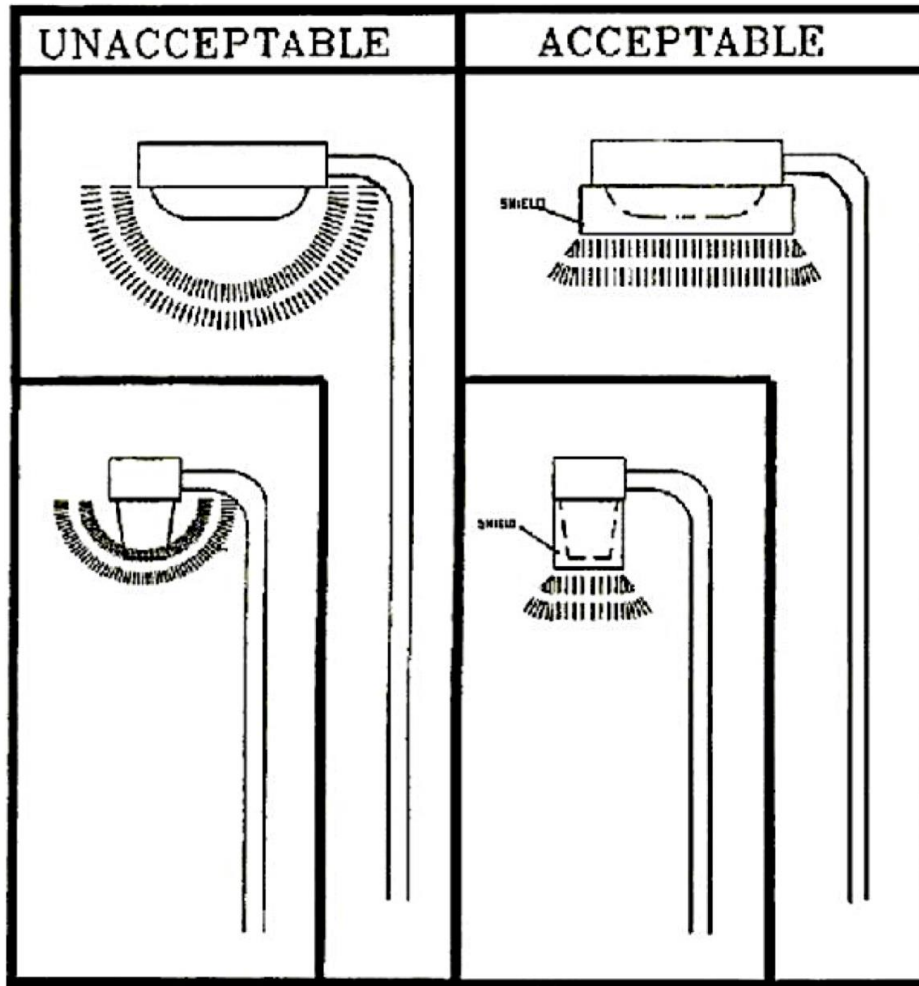


Figure 2: Freestanding Outdoor Lighting Fixtures

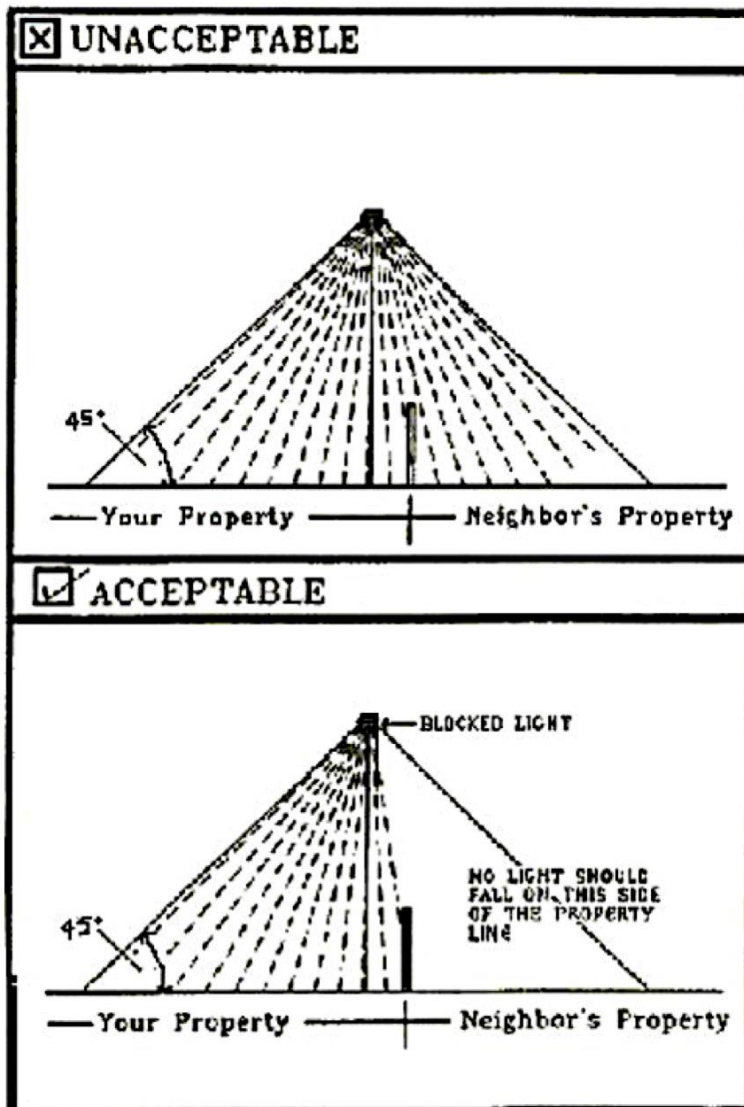


Figure 3: Outdoor Lighting Fixtures – Street and Lot Light Cut-Off at Property Line

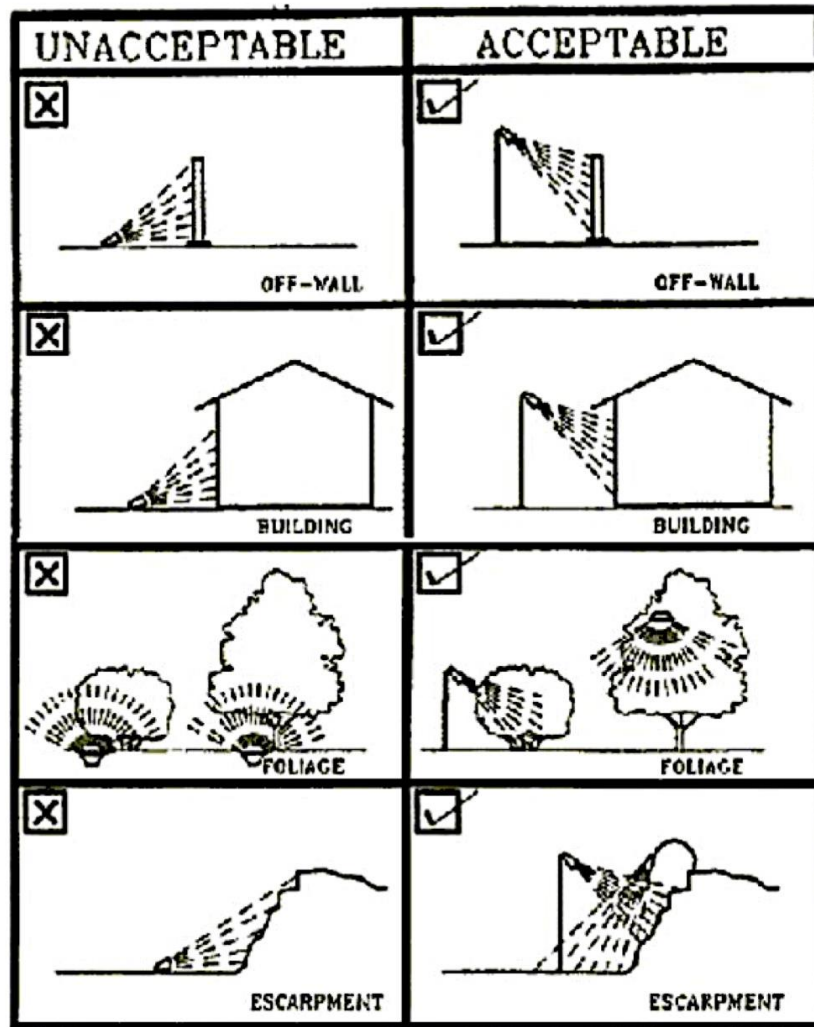


Figure 4: Accent Lighting