

Sonoma County Local Coastal Plan Update Policy Option: Noise, Vibration, & Light

Noise Policy Recommendation:

Remove the Noise Element from the Local Coastal Plan and add the following policies to the Open Space and Resource Conservation Element and Land Use Element

1. Noise:

"Policy Noise01:

Sound is a vibration that propagates as an acoustic wave though a gas, liquid, or solid, and noise is defined as unwanted sound. Pressure of an acoustic wave is measured using a relative unit of measurement, the "decibel". In the case of sound measurement, the decibel expresses the ratio between a reference level of 20 micropascals, and the measured sound pressure. Zero decibels is at the threshold of hearing for the average person and normal conversational speech is between 45-60 decibels. Because perception of sound is not linear, sound is measured on a logarithmic scale where a 10 decibel increase represents a 10 times increase in sound pressure.

The following standards apply to exterior noise at the property line, or sensitive resource, whichever is more restrictive:

Average noise for 30 minutes in any hour: 45 decibels

Average noise for 15 minutes in any hour: 50 decibels

Average noise for 5 minutes in any hour: 55 decibels

Average noise for 72 seconds in any hour: 60 decibels

Where impacts are limited to people, these measurements shall be adjusted human perception of noise by applying the International Organization of Standards "A" weighting to measurements.

These standard are subject to the following adjustments to the standard above:

Daytime noise emitted between 7:00 am and 10:00 pm may be increased by 5 decibels.

Where natural ambient sound is significantly below the standards, noise shall be limited to no more than 1.5 decibels above the ambient sound level.



Sonoma County Local Coastal Plan Update Policy Option: Noise, Vibration, & Light

Where natural ambient sound is significantly above the standards, maximum noise generation may be adjusted upward to match ambient levels to a maximum of 5 decibels.

In addition to noise that may affect people, projects shall evaluate potential for project noise to have an adverse impact on biological resources. Noise shall be controlled to prevent creating any significant adverse impact on biological resources.

This policy does not apply to emergency operations, operation of existing roads, agricultural uses, and temporary noise generation from solid waste collection, school functions, and property maintenance.

Special events may be allowed to exceed these standards on a temporary basis if noise generated by the event is found to have no significant impact on biological resources. Events that expose people and wildlife to loud impulsive sounds in excess of 85 decibels, such as fireworks, are prohibited"

2. Vibration:

"Policy Vibration01"

Vibration is defined as an oscillatory motion through a solid medium in which the motion's amplitude is described in terms of displacement and acceleration. This is measured as "peak particle velocity", expressed in inches per second of motion and abbreviated as PPV. PPV of 0.01 is barely perceptible, PPV of 0.80 is severely perceptible and may damage older buildings.

Vibration from development projects shall not exceed a PPV of 0.01 at the project boundaries in developed areas. In undeveloped and agricultural areas, PPV cannot exceed 1.00. In all cases, PPV cannot exceed values that will result in damage to coastal resources

This policy does not apply to the following activities:

Geotechnical borings necessary to determine site stability and suitability for development.

Emergency repairs for which a Coastal Emergency Permit has been issued.

Installation of road signs, guardrails, and safety-related road equipment such as call boxes or traffic signals.



Sonoma County Local Coastal Plan Update Policy Option: Noise, Vibration, & Light

3. Light:

"Policy Light01"

The following standards apply to all exterior lighting:

- 1. Lighting shall be fully shielded to prevent nighttime light pollution
- 2. Lighting shall be downward facing, located at the lowest possible point to the ground to prevent spill over onto adjacent properties, glare, nighttime light pollution and unnecessary glow in the rural night sky.
- 3. Light fixtures shall not be located at the periphery of the property and shall not wash out structures on any portions of the project site. Security lighting shall be put on motion sensors.
- 4. Flood lights and uplights are not permitted except in agricultural operations and commercial fishing facilities.
- 5. Signs that emit light are prohibited and lights used to illuminate signs shall be shielded to prevent light spill beyond the sign and not exceed a total light output of 1000 lumens
- 6. Light fixtures emitting over 1000 lumens are prohibited except where needed for agriculture and commercial fishing facilities.
- 7. Total illuminance beyond the property line, created by simultaneous operation of all exterior lighting, shall not exceed 1.0 lux. Color temperature of exterior light sources shall be 3000 Kelvin or lower.