

HOW BORREGANS KEEP THEIR NIGHT SKY DARK



View of Borrego village lights

Borrego Springs is incredibly lucky to have a dark night sky. This is due to its isolated location, the surrounding mountains, and the open space in the Anza-Borrego Desert State Park. The town was granted Dark Sky Community status in 2009 by the *International Dark-Sky Association (darksky.org)*, the only town in California to be so awarded. Residents, visitors, amateur astronomers, and photographers treasure the valley's dark sky.



But will it always be so? To maintain the dark sky in our Borrego village good lighting practices are essential, by both businesses and homeowners.

What have we done to preserve and protect our dark skies?

Here are some steps many have taken



Use the right amount of light for the task, not more than necessary. "More light" is not necessarily good design. Simply use lower wattage or fewer bulbs to reduce the brightness.



Replace older porch lights. Compact fluorescents or LED fixtures are good alternatives and will save on your electric bill.



Use timer controls, motion sensors, or dimmer switches to insure that lights are ON when you need them and OFF when you don't need them.



Shine the light down where it is needed. Stand off your property, even across the street, and look at your porch light. If you can see the exposed bulb, then it is not properly shielded. Can the angle or location of the fixture be adjusted? Can you fashion some shading? If not, consider upgrading the lamp.



Use small wattage lights for illuminating landscaping or building accents. The subtle accent of carefully placed, modest lighting can be appropriate to our desert habitat.

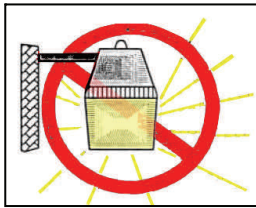


Change out yard lights Mercury vapor globes are particularly bad because their blue light destroys our eyes' dark adaptation. Use low pressure sodium lamps (yellow), which are also more economical. These bulbs are excellent for broad outdoor areas, such as street lighting, parking lots, and security illumination.

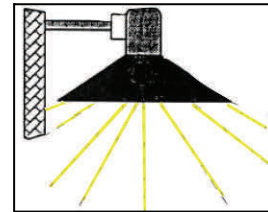
Thoughtful nighttime lighting is the key to reducing light pollution. The options come at a variety of costs, but there is something to fit every budget. Proper lighting saves money! Residents and business owners may contact the Dark Sky Coalition for an evaluation of their lighting and information on suitable fixtures, orientation, retrofits, suppliers, and changes that will save money and energy.

Light Pollution

Have you ever been dazzled by the glare of a neighboring porch light, or a business security lighting? **LIGHT POLLUTION** is the illumination of an area not meant to be lit up by the light source – it is excessive and unneeded lighting. It comes in many forms: *light trespass*, for example when a porch light is shining through your bedroom window; *sky glow*, where parking lot lighting is not properly shaded, limiting our view of the stars; and *glare*, the dazzling effect of floodlights or headlights that makes it difficult to see objects because it reduces one's night vision.

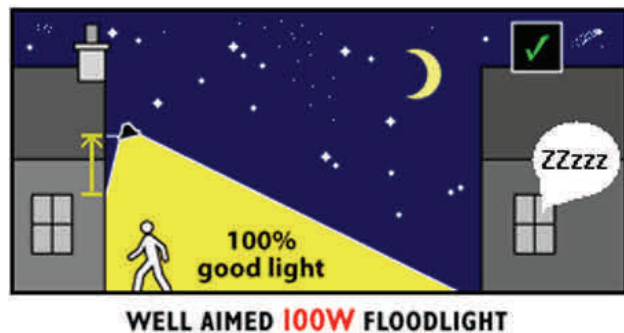


Excessive Light



Good Shielding

San Diego County has an outdoor lighting ordinance requiring most outdoor lighting to be “fully shielded,” which means that the fixtures are covered, focused, or constructed so that the light shines **DOWN**, but not **UP** nor **OUT**. This includes properties having incandescent lamps totaling over 150 watts, or fluorescent lamp totals of over 40 watts.



New building should follow 'Right Light' guidelines during construction – not too much, not too little. But county ordinances are only words unless implemented by public agencies, private companies, and individuals alike.

Excessive lighting is not just an annoyance,

it has negative effects on OUR OWN HEALTH, and also animal and plant growth

Research continues to probe the connection between darkness and health, and the evidence is now linking the brightening night sky with negative impacts on the human immune system, behavioral changes in animal populations, and decreased plant growth.

Tests show that both bright days and dark nights are essential for hormone production (melatonin), cell function, and brain activity. When it comes to human health, excessive night lighting can lead to a decrease in cognitive and motor skills. A good night's sleep helps reduce weight gain, stress, depression and the onset of diabetes.



Constellation Orion in Borrego's Night Sky

Dark nights are essential for normal feeding, mating, and migratory behavior for many species. Animals and plants live by a *circadian* rhythm attuned to our planet's 24-hour cycle. Wildlife faces confusion of time when there is too much artificial night light, causing fatigue similar to the effects of jet lag. Some mammals known to be affected by artificial light are bats, raccoons, coyotes, deer, and migrating birds. Many of our desert insects are attracted to artificial lights, which interferes with mating and migration, and makes them easy prey for bats and other predators. This can cause a decline in their numbers, affecting species that rely on insects for food or pollination. Without dark skies, plants, too, show a reduction in growth.

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Support for Borrego Springs dark skies and this brochure comes from NRG Solar



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THE **BORREGO SPRINGS DARK SKY COALITION** IS A GROUP OF VOLUNTEER LOCAL RESIDENTS WHO WANT TO HELP PREVENT THE BRIGHTENING OF BORREGO'S NIGHT SKY. THE COALITION IS BEING FACILITATED BY THE ANZA-BORREGO DESERT NATURAL HISTORY ASSOCIATION, A 501C3 NONPROFIT

TO CONTACT THE COALITION, WRITE TO BORREGO SPRINGS DARK SKY COALITION, P.O. Box 310, BORREGO SPRINGS, CA 92004-0310
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