



Julian Dark Sky Network  
P.O. Box 184, Julian 92036  
JulianDarkSkyNetwork.com  
juliandarkskynetwork@gmail.com  
(619) 354 9258

#### OUR GOALS

Promote the Enjoyment and Preservation of Julian's Dark Skies.  
Develop and Organize Year-Round Public Astronomy Activities.  
Share the Exciting Scientific Breakthroughs that are taking place in our Understanding of the Universe with the Community.

## FELLOW JULIANITES — HELP KEEP OUR NIGHT SKY DARK!



*Milky Way as seen from a Dark Sky Location.*

Residents and visitors agree, the starry, dark night sky here in Julian is *unforgettable!* Did you know we are part of *only one percent* of the U.S. population that can still see the Milky Way at night? This is due to our distance from the urban sky glow of San Diego, and the protective barrier of the surrounding mountains. The Julian Dark Sky Network proposes that our community undertake important steps to preserve this important component of our region's natural habitat.

**So how can we do this?** In 2009, Borrego Springs was granted Dark Sky Community status by the *International Dark-Sky Association (darksky.org)*, attracting the attention of national and international news media, and bringing more visitors year round. Residents, business owners, astronomers, and photographers truly treasure their community's dark sky, and eagerly share it through star gazing

events, school programs, seminars, and special events year round.

**What better legacy for Julian, than to preserve this valuable part of our unspoiled environment?** Julian can join with Borrego Springs and continue to preserve, protect and promote our dark skies, a vital, but endangered part of our common natural heritage. To ensure the preservation of our Julian Dark Sky, good lighting practices are essential, by businesses, public institutions, and homeowners alike. We invite you to sign our pledge to work together to preserve our beautiful, starry night sky by simply practicing *Night Sky Friendly Lighting*.

**For more info visit: [JulianDarkSky.com](http://JulianDarkSky.com)**

***What can we do to preserve and protect our dark skies? Here are some of the steps we can ALL take.***



**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 mountain habitat.



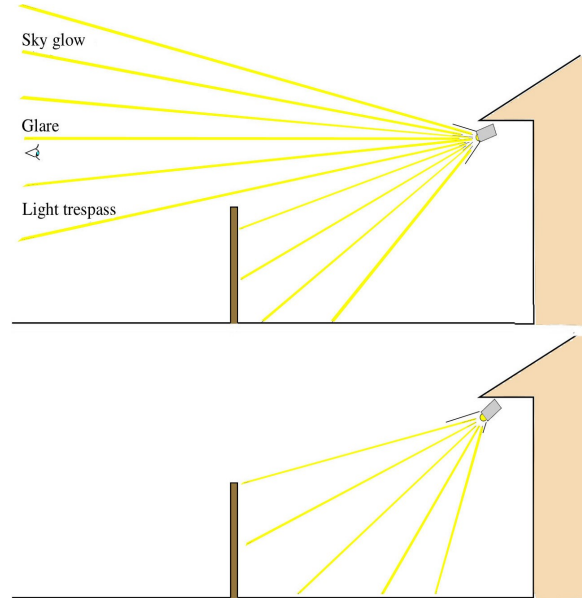
**Change out yard lights.** Mercury vapor globes are particularly bad because their blue light destroys our eyes' dark adaptation. Use low pressure sodium lamps (yellow), which are also more economical. These bulbs are excellent for broad outdoor areas, such as street lighting, parking lots, and security 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 are invited to contact the Julian Dark Sky Network for an evaluation of their lighting, as well as information on suitable fixtures, orientation, retrofits, suppliers, and changes that will save money and energy.

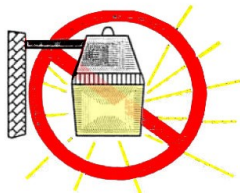
# Light Pollution

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.

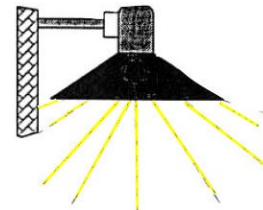
San Diego County has an outdoor lighting ordinance requiring most outdoor lighting to be "fully shielded," which means that the fixtures are covered, focused, or constructed so that the light shines DOWN, but not UP nor OUT. This includes properties having incandescent lamps totaling over 150 watts,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

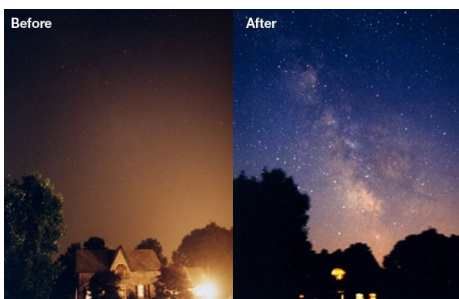


Good Shielding

*Excessive lighting is not just an annoyance, it has negative effects on OUR OWN HEALTH, and even 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.



Excessive lighting vs: Night Sky friendly lighting

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 native 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.