

#idahodarksky

PARTNERS

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The Dark Side of Light Pollution



e've all learned about land, water, and air pollution but have you ever thought about light pollution? The International Dark-Sky Association (IDA) website defines light pollution as the inappropriate or excessive use of manmade light and explains some surprising consequences linked to the increasing light pollution in our world.

Some common types of light pollution include **glaring** or bright lights that impair our eyesight and actually make it harder to see objects directly in the glare. **Light trespass** occurs when light intended for one purpose impacts adjacent places or people. The familiar **sky glow** that lights up the sky over cities and brightly lit businesses is another example of light pollution.

THE EFFECTS OF LIGHT POLLUTION

Human health – Excessive artificial light at night affects our circadian rhythm, the biological clock that guides our daily routine to sleep, wake, and eat. Living with constant light increases risks for obesity, depression, sleep disorders, diabetes, breast cancer, and more.

Wildlife – Many creatures including amphibians, birds, mammals, insects, and plants are affected by artificial light. It disturbs sleep patterns, affects pollination, and interferes with reproduction

Energy – According to the U.S Department of Energy, about 35% of light is wasted by unshielded and poorly aimed lighting. That amounts to \$3.3 billion and 21 million tons of carbon dioxide per year.

Heritage – Humans throughout history have looked up at the natural night sky with awe and curiosity. The starry sky has provided navigation assistance, spurred scientific endeavors, and inspired artists, poets, and stargazers.

YOU CAN HELP MINIMIZE LIGHT POLLUTION

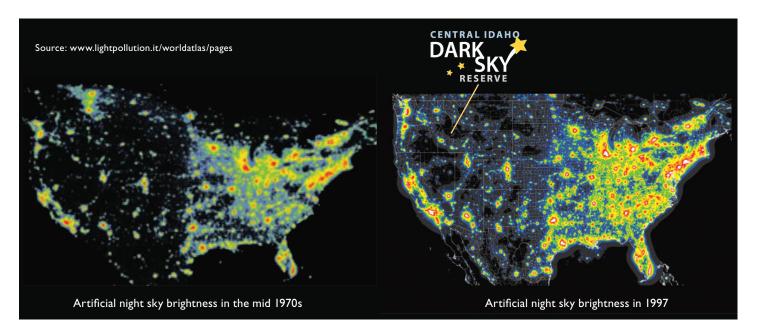
The good news about light pollution is that it is easier to resolve than other forms of pollution. You can literally just flip a switch to make a difference!

I. Inspect the lighting around your home. Turning off unnecessary lights reduces light pollution, saves you money, and cuts energy use.



- **2.** Use dark-sky friendly lighting at your home and business. Install fixtures or shields that direct light downward on areas that need illumination, thereby limiting light trespass, glare, and up-lighting into the night sky. Choose bulbs for outdoor lights that provide warm white light with a yellow glow rather than cool blue light.
- **3. Talk to your friends, family, and neighbors.** You can find resources on our website to help in your efforts to encourage and educate others about light pollution.
- **4.** Advocate for a lighting ordinance in your town or area. Contact your local government to see if there is an existing ordinance or how you can help them explore options.

Want more information? Check out www.darksky.org/lighting/lighting-basics/



Central Idaho and the Reserve

The Central Idaho Dark Sky Reserve encompasses 906,000 acres (1,416 square miles) most of which is public lands within the Sawtooth National Forest. The Reserve includes portions of Blaine, Boise, Custer and Elmore counties, the communities of Stanley, Lower Stanley, Smiley Creek, Ketchum and Sun Valley. Central Idaho constitutes one of the last large 'pools' of natural nighttime darkness left in the United States.

The Reserve has as its core parts of three designated wilderness areas and is situated in the spectacular scenery of the Sawtooth National Recreation Area (NRA). The designation of the Reserve is a particularly good fit within the recreation area, as it supports the area's enabling legislation.

In 1972, Congress established the 756,000-acre Sawtooth NRA with the passage of Public Law 92-400 which sought to preserve and protect the Area's "natural, scenic, historic, pastoral, and fish and wildlife values and to provide for the enhancement of the recreation values associated therewith." Preserving the natural night sky complements all of these values and contributes to the solitude and primitive quality of the associated Wilderness areas.

Learn about the Night Sky with our Partners!

Sawtooth Interpretive & Historical Association (SIHA) is based in Stanley in the heart of the Reserve and operates the Redfish Visitor Center and Stanley Museum. SIHA offers activities for children and adults during the summer months including star parties, Jr Ranger programs and a lecture series. (www.discoversawtooth.org)

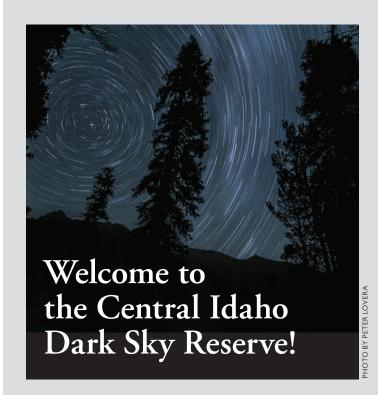
Sawtooth Botanical Garden, south of Ketchum, hosts periodic night sky programs throughout the year ranging from astrophotography to constellation mythology. (www.sbgarden.org)

Local Astronomy Clubs and Societies

Boise Astronomical Society www.boiseastro.org Idaho Falls Astronomical Society www.ifastro.org Magic Valley Astronomical Society www.mvastro.org

For my part I know nothing with any certainty but the sight of the stars makes me dream.

Vincent van Gogh, Artist



Here in the heart of central Idaho, we celebrate our pristine night sky as part of our heritage and a treasure worth preserving for our children and future generations.

Whether you use your eyes or binoculars or a telescope, you will find it is truly humbling to view planets, the Milky Way, meteors, comets, and even deep sky objects.

Across the country, more than 80 percent of people reside in cities and urban areas where light pollution dilutes and distorts their view of the stars. Research shows the Milky Way is hidden from view of more than one-third of the world's population.

The Central Idaho Dark Sky Reserve is a treasured resource for local residents and for all Idahoans and visitors from across the world who come to experience the wonder of the starry night sky. The Reserve is the result of a collective commitment by communities, public land managers, and private landowners to support the dark sky experience.

Remember to look up at the stars and not down at your feet. Try to make sense of what you see, wonder about what makes the universe exist.

Dr. Stephen Hawking, Theoretical Physicist



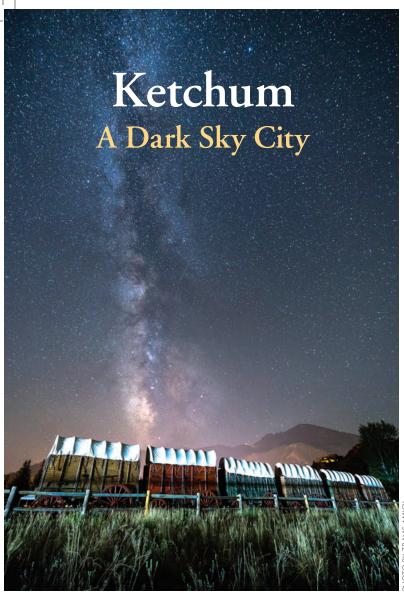
The FIRST International Dark Sky Reserve in the U.S.

he International Dark-Sky Association (IDA) designated the Central Idaho Dark Sky Reserve in December 2017, the twelfth such reserve worldwide. IDA awarded the area Gold Tier status, their highest ranking for night sky quality. For more information about other Dark Sky Reserves, go to www.darksky.org.

The designation represents nearly two decades of planning efforts and policy decisions by city and county leaders, local businesses and organizations, and public land managers. Working together, these partners continue to focus on preserving the quality of the night-time environment and reducing the impact of light pollution in the area.

Through our combined efforts, we are working to:

- Preserve and enhance the natural nighttime experience to improve quality of life.
- Highlight the economic benefits associated with dark sky compliant lighting—from energy savings to tourism revenue.
- Conserve our robust nocturnal ecosystems and support the needs of wildlife.
- Enhance local scientific and educational opportunities through astronomy and other natural studies.
- Promote our dark skies as a unique community asset and part of our local and national heritage



n 2017, Ketchum received national recognition as the first city in Idaho to be designated as an International Dark Sky Community, dedicated to reducing light pollution and preserving the night skies. In an effort to promote the quality of life and the ability to view the night sky, the city is working with residents to have all exterior lighting in compliance by 2019.

The city of Ketchum is a steward of its natural environment and is working to preserve its dark skies. The city has been a leader in the state of Idaho when it comes to protecting the night sky. Ketchum passed one of Idaho's first Dark Skies ordinances in 1999, and revised the ordinance in 2017 to meet IDA International Dark Sky Community standards.



Specific goals related to Ketchum's Dark Sky

- Protect and reclaim the ability to view the night sky and help preserve quality of life and the tourist experience.
- Protect against direct glare and excessive lighting and
- Provide safe roadways for motorists, cyclists and pedestrians.
- Promote efficient and cost effective lighting.
- Provide lighting guidelines that allow for flexibility in the style of lighting fixtures.
- to correct nonconforming lighting.

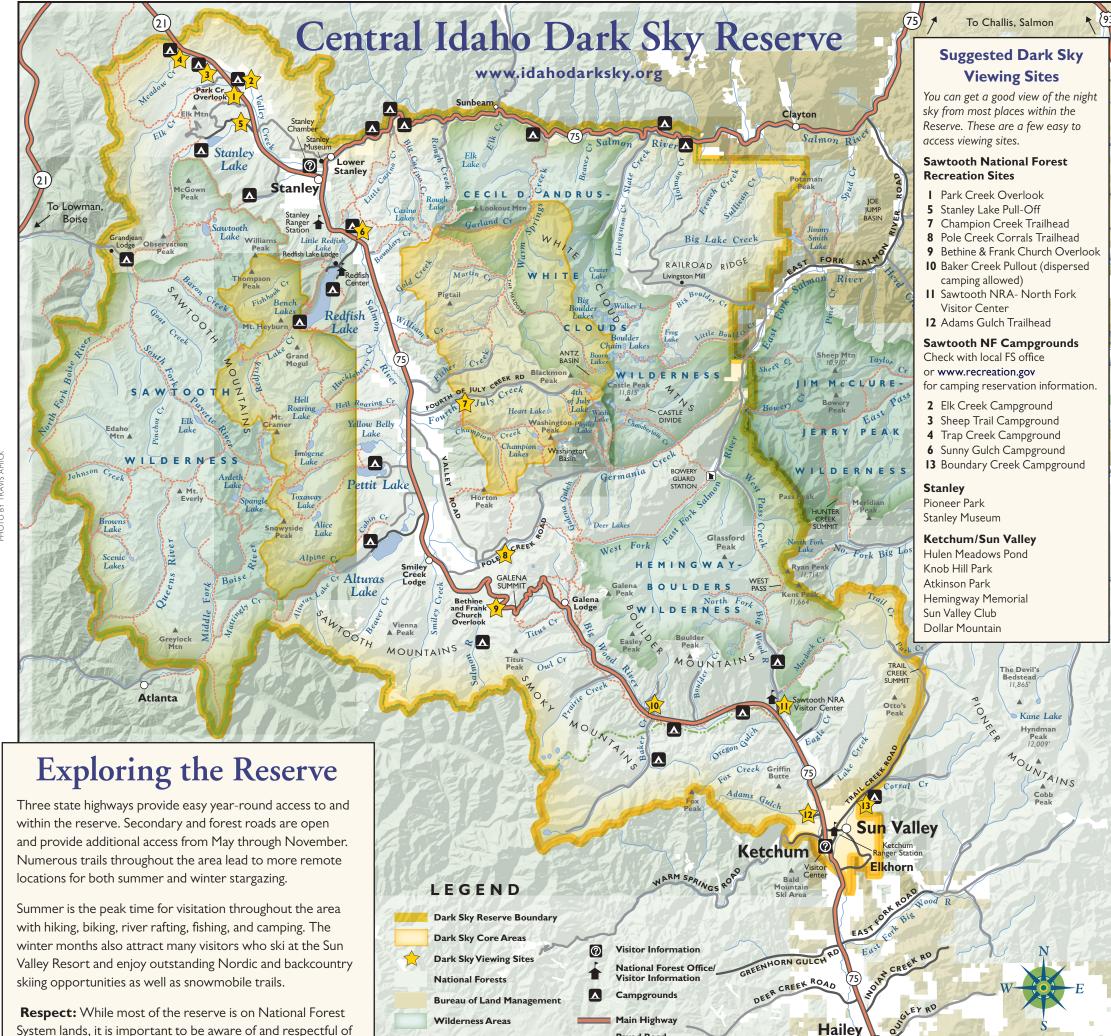
More information about Ketchum's Dark Sky ordinance and designation can be found on the city's website: www.ketchumidaho.org

Dark Sky Lighting Throughout Central Idaho

The concept of dark sky preservation is not new to this area. In addition to Ketchum's efforts, Hailey passed a municipal dark sky ordinance in 2002, **Sun Valley** in 2004, **Blaine** County in 2010, and Custer County in 2010. Stanley is currently working on an ordinance and the Forest Service has committed to working with permittees and landowners in the Sawtooth National Recreation Area to improve lighting.

For more information about these ordinances contact:

Stanley www.stanley.id.gov Sun Valley www.sunvalleyidaho.gov Hailey www.haileycityhall.org Blaine County www.co.blaine.id.us Custer County www.co.custer.id.us



designation include:

- prevent light trespass.
- Ensure that sufficient lighting can be provided, where
- needed, to promote safety and security.
- Provide assistance to property owners and occupants

PLAN YOUR VISIT The best way to explore the Central Idaho Dark Sky Reserve is to contact one of these visitor information providers.

> • Visit Sun Valley – 208-726-3423 or 1-800-634-3347, www.visitsunvalley.com, info@visitsunvalley.com

System lands, it is important to be aware of and respectful of

the private land and homes in the area. Always ask owners' permission to cross private property. National Forest maps

provide detailed information about various land designations

Protect: Learn about and practice Leave No Trace (www.

Int.org) and Tread Lightly (www.treadlightly.org) principles to

ensure you leave the area in as good or better condition than

you found it. Stay on trails and roads, pack out your trash, and comply with signs and regulations. Check for current fire

conditions and restrictions before having a campfire. If you

Be Safe: For your safety, keep an eye on the weather as

summer thunderstorms can move in quickly. Be respectful of

wildlife in the area for your safety and for theirs. Cell service

is limited in some areas of the Reserve so plan accordingly.

do have a campfire, never leave it unattended and be sure it is

throughout the Reserve.

out and cold before you leave.

- Stanley-Sawtooth Chamber of Commerce 208-774-3411 or 1-800-878-7950, www.stanleycc.org, information@stanleycc.org
- The Chamber Hailey & Wood River Valley -208-788-3484, www.haileyidaho.com, info@haileyidaho.org
- Redfish Visitor Center & Gallery 208-774-3376, and Sawtooth Interpretive & Historical Association (SIHA), www.discoversawtooth.org, info@discoversawtooth.org
- Sawtooth National Forest www.fs.usda.gov/sawtooth Sawtooth NRA-North Fork Visitor Center – 208-727-5000 or I-800-260-5970 Stanley Ranger Station – 208-774-3000

Ketchum Ranger Station – 208-622-5371



Sawtooth National Recrea

Private Land

Look Up. Be Amazed.

Boasting some of the darkest skies in the lower 48, the Central Idaho Dark Sky Reserve provides an opportunity to see objects in the night sky that are not visible throughout most of the U.S. Here you can just look up and see our Milky Way Galaxy, Andromeda Galaxy, Messier objects, constellations, our moon, planets, satellites (including the Space Station), and many other wonders of the night sky. Add a pair of binoculars or small telescope and the depths of the cosmos are revealed, from nearby nebulae to distant galaxies.

If you are new to stargazing, a good way to start is to learn some of the key constellations - Orion, Ursa Major (The Big Dipper), Cassiopeia, and the Summer Triangle. Knowing them provides a base to build your knowledge and to navigate the cosmos. Star charts are useful tools that provide a map of the night sky in your area. Find them online, in astronomy magazines, or at your local planetarium.

The planets Mercury, Venus, Mars, Jupiter, and Saturn change their positions in the sky throughout the year but can be seen with the naked eye. Use binoculars for a closer look. Other than the moon, Venus and Jupiter are the brightest objects in the night sky. With a small telescope you can see the Galilean moons of Jupiter and the rings of Saturn.

August is a great month to observe meteor showers when the Perseids appear in large numbers. The Geminids put on another spectacular show in December. Other smaller meteor showers appear throughout the year.

NAVIGATION TOOLS

There are many apps available to help you navigate the night sky. Check your app store for the ones that work best for you. These websites also provide general information about the night sky and locations for current constellations.

www.earthsky.org/tonight

www.timeanddate.com/astronomy/sights-to-see.html

www.space.com/skywatching