

CENTRAL IDAHO DARK SKY RESERVE
ANNUAL REPORT

**20
23**



CENTRAL IDAHO MILKY WAY – R. GADD

Central Idaho Dark Sky Reserve
2023 Annual Report
Submitted to Dark Sky International: January 2024

International Dark Sky Place Name	Central Idaho Dark Sky Reserve (CIDSR)
International Dark Sky Place Category	International Dark Sky Reserve
Designation Year	2017
Guidelines Version	2015

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Mailing address PO Box 4903, Ketchum, Idaho, 83340
Area of Reserve 906,000 acres / 3668 km²

Night Sky Quality Monitoring

Total average or typical zenith night sky brightness reading for this reporting period:
21.50

Upload your night sky quality raw data documents for this reporting period:

[CentralIdaho_SkyQuality_SQM-data.xlsx](#)

[CentralIdaho_SkyQuality_UCLA_Sample_SQC_data.pdf](#)

Upload a map that shows the locations and names of the places that were used to take SQM measurements. If you provided a map last year and your sites have not changed, you may skip to the next section:

[CentralIdaho_SkyQuality_SQM-site-Map.pdf](#)

Describe any changes detected in night sky quality from receiving your certification to the present:

No substantial differences in SQM readings were noted. The light domes/skyglow from the Boise and Twin Falls areas are still visible in many locations throughout the Reserve but have not increased dramatically. We continue to refine our SQM locations and data collection working in cooperation with Dr Travis Longcore and UCLA students involved with the ongoing monitoring research within the Central Idaho Dark Sky Reserve.

Over the past three years, the UCLA research teams have focused on collecting night sky data within CIDSR using a Sky Quality Camera which provides a broader understanding of light pollution threats. The attached photos are from two of the monitoring sites within the Reserve. These images and other data will be analyzed and provided to the Reserve later this year.

Lighting Compliance

Reserves, please fill out the applicable row to describe your lighting compliance rate (%) with your Lighting Management Plan (whole numbers only):

	Year of Certification	Compliance % in Original Application	Current Compliance %	Anticipated % for Next Reporting Period
Core	2017	100	100	100
Periphery	2017	74	n/a	n/a

What actions have you taken to meet the requirements of your Lighting Management Plan/Policy during this reporting period? Include a summary of any actions taken with privately owned lighting that helped improve your night sky quality as well:

There is no lighting within the CIDSr core area so it is 100% compliant with lighting requirements. The six jurisdictional entities within the Reserve continue to work on their facilities and with residents who live within the Reserve to retrofit non-compliant lighting according their respective ordinances. All entities require all new construction and remodels to install dark sky compliant lighting so the compliance continues to improve but we have not calculated overall compliance rate changes for this year.

- Sun Valley verified 92 properties within the city were compliant with our lighting regulations. Of these 92 properties, 10 were new single-family homes with the other 82 were existing residences. All of these properties were either in compliance already or they were brought into compliance as a result of review. City staff works with homeowners and architects to review proposed lighting plans to ensure compliance with the ordinance. The lighting plan attached is an example of a negotiated process. The proposal had the lumen count fairly close to the max allowed for the site, but a condition was placed to eliminate two fixtures during Design Review reducing the total lumens
- Ketchum issued 174 building permits in 2023 that required the installation of new dark sky compliant lighting and/or required existing exterior lighting to be brought into conformance. One example of working with applicants to reduce lighting impacts was with the Bluebird Village Community Housing project where the applicant proposed low levels of exterior lighting in addition to reducing the window glazing on the stairwells by 50% to limit the amount of light emanating from the building.
- Blaine County continues to work with county residents to address excessive holiday lighting https://www.mtexpress.com/news/blaine_county/blaine-county-passes-11-p-m-curfew-on-holiday-lighting/article_38b8aaa8-51ac-11ee-98e2-2b7797e9f159.html

Upload any relevant documentation showing examples of lighting changes made during this reporting period:

[CentralIdaho Lighting SunValleyResidentialLightingPlan.jpg](#)

Have you used any fixtures from the IDA Fixture Seal of Approval (FSA) Program?

No

For International Dark Sky Communities and Reserves, have there been any changes to your local outdoor lighting ordinances? If yes, please describe and provide a link to the updated policy if available:

There were no changes to ordinances for any of the jurisdictions within the reserve in 2023.

Current versions were updated in:

Blaine Co – 2021

Custer Co – 2010

Ketchum – 2017

Sun Valley – 2020

Stanley – 2018 (resolution)

Outreach, Education, and Media

Event/Program	# of programs	# of Attendees
Astronomer in Residence Lecture	7	149
Dark Sky Talks & Webinar	6	281
Stargazing Night	10	268
Perseid-Palooza Party	2	155
Star Party	1	30
Saving the Dark Film & Panel Discussion	2	110
Public Festivals – Dark Sky Booth	4	403
AstroTAC Mobile Planetarium	4	231
Dark Sky Paint & Sip Soiree	2	32
Bloom Truck Summer Lunch Program	3	62
Farmers Market Dark Sky Booth	3	160
Meditation Under the Stars	1	11
DarkSky Dinners,Sawtooth Botanical Garden	3	112

Did you promote the IDA and its mission during your outreach programs/events? If so, describe:

All of our outreach programs include information about DarkSky's mission, how the area was designated as a Dark Sky Reserve, and how we are working to address light pollution. We typically have some of DarkSky's brochures on hand to distribute at our events.

Is there any programming, ongoing or planned, blending the arts and/or culture with dark skies? If so, describe:

We assisted with a BSU environmental writer's retreat featuring authors Paul Bogard and Kim Cross. The retreat incorporated several night sky related sessions including a program by Dr Jesse Barber about night sounds and ecology, stargazing with the AstroTAC team, an overview of CIDSR, and DarkSky banners about light pollution that were posted at the camp.

One of our Astronomers in Residence conducted two Dark Sky Paint and Sip events where participants learned how light pollution impacts the night sky and then local artists helped them create their own interpretation of the night sky in the Reserve.

What have you noticed about your visitors' experiences? For example, is attendance/visitation of dark-sky programs consistent, growing, or dropping off?

Have visitors provided any feedback on their experiences at your site? Please describe:

There is definitely more interest in Dark Sky programs and events from both residents and visitors. The majority of events are offered in the summer when our CIDSr Astronomers in Residence and the Boise State AstroTAC outreach team offer programs throughout the Reserve but we get questions year-round from people planning to visit who are seeking dark sky programs.

Provide up to five photos of events you hosted this year:

[CentralIdaho Outreach AIR-Joel-Solar-Viewing.JPG](#)

[CentralIdaho Outreach AIR-Lindsay.JPG](#)

[CentralIdaho Outreach Perseid.jpeg](#)

[CentralIdaho Outreach UCLA-Monitoring.JPG](#)

Provide social media handles or website links used to promote dark skies (these will be added to your Place's [DarkSky page](#)):

Website: idahodarksky@gmail.com

Facebook: Central Idaho Dark Sky Reserve

<https://www.facebook.com/people/Central-Idaho-Dark-Sky-Reserve/100070205423934/>

Has your Place participated in any DarkSky-led initiatives such as International Dark Sky Week, the Under One Sky conference, or other relevant promotions during this reporting period?

Yes, the city of Ketchum issued a Proclamation for International Dark Sky Week.

Two Idaho Dark Sky Alliance board members attended some of the Under One Sky conference sessions.

Upload files of any media coverage (articles, interviews, etc.) about your site or dark-sky efforts you are involved with. This may also be a document with a list of links to the respective coverage.

[CentralIdaho Outreach Media-Mentions- 2023.docx](#)

Has your site erected signage identifying your site as an International Dark Sky Place?

Yes

Briefly describe how educational materials are being dispersed/provided at your Place: CIDSr Brochures are available in all area visitor centers, made available to local businesses on request for distribution to their customers, and sent in response to information requests. City/county ordinance and compliance information brochures are distributed by the various jurisdictions. Blaine County sent out a friendly holiday lighting reminder in February.

Upload examples of new (not developed/provided by the IDA) printed educational materials that have been created this reporting period. These may include brochures, handouts, policy-related materials such as utility notices, and/or informative messages distributed through utility companies:

[CentralIdaho Outreach BlaineLighting ReminderFeb2023.pdf](#)

Upload photos showing any of the above items you are currently providing

[CentralIdaho Outreach 2023 IDSW Ketchum.pdf](#)

[CentralIdaho Outreach AIR-summary.pdf](#)

[CentralIdaho Outreach BSU-NASA-CIDSR-STEM-Network-2023.pdf](#)

[CentralIdaho Outreach SawtoothWritingRetreat2023.pdf](#)

Briefly describe any efforts undertaken to reach new audiences. If this was not part of your efforts last year, describe what you plan to do to engage new visitors in the 2024 reporting period:

With help from the Astronomers in Residence and AstroTAC team, we added several new programs to reach new audiences including having a booth at local Farmer's Markets, providing kid's programs at local Summer Lunch distribution sites, Paint and Sip nights and even a meditation event under the stars. While some of the events had limited participation, we were able to raise awareness about CIDSR and light pollution by connecting with people who may never attend an official "Dark Sky Program".

Partnerships

Have you worked with any external partners to promote the dark-sky movement within and outside of your Place's boundaries? If so, identify these partners and explain the result of this collaboration:

Idaho Dark Sky Alliance

The Idaho Dark Sky Alliance (IDSA) was established in 2021 as a 501(c)(3) nonprofit organization to help manage the day-to-day operations and fundraising needs of the Reserve. The board proposes, seeks funding for, and implements projects to support dark sky outreach and monitoring efforts.

BSU- NASA Science Activation Program Grant

We continue our partnership Boise State University, working with Dr Brian Jackson, a professor in the Physics Department and an IDSA board member. Dr Jackson received a NASA Science Activation Program grant in 2021 to build an astronomy and STEM outreach network centered on the Central Idaho Dark Sky Reserve. The program continues to grow and provides numerous public stargazing and education outreach presentations within the reserve and the region by BSU AstroTAC students and the CIDSR Astronomer in Residence.

Were you awarded any grants or funding for projects during this reporting period? If yes, please describe:

We are fortunate to receive a small amount of funding from the cities of Stanley, Ketchum and Sun Valley, Blaine County and the Stanley-Sawtooth Chamber of commerce to support our base operations and outreach efforts.

Are there any ongoing conservation and/or research programs at the site? If so, who runs them, and what are the goals?

We continue to work with Dr Travis Longcore and the UCLA Institute of Environmental and Sustainability to monitor light pollution. The purpose of the project is to develop a long-term strategy to track light pollution trends affecting the Central Idaho Dark Sky Reserve. The

student teams collect sky quality data and other information while they are on-site using a Sky Quality Camera and Sky Quality Meter and then analyze the data once they are back at UCLA. The program started with five students in 2021, and has continued with two students in 2022 two students and another group of three students this past summer in 2023.

This year, in addition to collecting monitoring data, the researchers presented some of their findings at a community workshop hosted by the city of Ketchum attended by members of the public as well as city and county staff involved in dark sky compliance and planning.

Briefly describe future plans (in 2023 and beyond) to engage with existing and new partners and how you will expand the dark-sky movement:

We hope to build on the expanded interest in lighting management within the reserve by working more closely with the city and county planning staff and possibly establish a new partnership with a local hardware store to carry more dark sky friendly fixtures and bulbs.

Light Pollution Control Improvements and Threats

For Dark Sky Reserves, briefly describe any new (or ongoing) examples of night sky friendly installations on private sites and/or public spaces such as roadways or parks:

All lighting within the reserve whether public or private is regulated by existing lighting ordinances, so any new or updated outdoor lighting must be dark sky friendly. The Bluebird Village Community Housing project in Ketchum is a good example of dark sky friendly private developments.

Have the "threats" identified in your application for certification changed: Stayed the same

Provide a brief description of how you will continue to manage "threats" over the next year: Skyglow from the Treasure Valley and Magic Valley is one of the identified threats to the sky quality within the Reserve as well as in the Treasure Valley. We continue to explore opportunities to reach out to residents and city staff in the Boise and Twin Falls areas to address lighting issues in those communities.

In addition, many people have moved into the cities within the reserve over the past few years who may not be as familiar with our dark sky efforts so we also plan to expand our educational programs and outreach within the local community.

What do you consider the greatest single benefit of the Dark Sky Places certification to your location?

Designation as a Dark Sky Reserve united the community in recognizing and celebrating the stunning night sky that we have in central Idaho. Sometimes we take the starry sky for granted and assume it will always be there but being a designated site reminds us that we all need to do our part to maintain and improve our night sky resource.