International Dark Sky Place Annual Report: October 2021 - December 2022



Date

Tuesday, December 27, 2022

General Information

International Dark Sky Place Name

Fountain Hills, Arizona

International Dark Sky Place Category

International Dark Sky Community

Designation Year

2018

Guidelines Version

2017

Your Name

Grady Miller Town Manager, Town of Fountain Hills

Email Address

gmiller@fountainhillsaz.gov

Primary Contact

John Wesley Development Services Director

Primary Contact Email Address

jwesley@fountainhillsaz.gov

Primary Contact Phone Number

+480 (816) 5183

Secondary Contact

Vicky Derksen President, Fountain Hills Dark Sky Association

Secondary Contact Email Address

Vickyann95@gmail.com

Secondary Contact Phone Number

+480 (816) 5183

What is the physical address of the Place?

16705 E. Avenue of the Fountains Fountain Hills, Arizona, 85268 United States

Is the site currently under Provisional Status?

No

Are you an IDA Delegate, Affiliate, or Chapter Representative?

No

Night Sky Quality Monitoring

Total average or typical zenith night sky brightness reading reported in the original application:

18.31

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

19.26

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



2022 10 21_2022 Sky Quality....pdf

Upload a map (PDF or image) that shows the locations and names of the places that were used to take SQM measurements:



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

No noticeable changes.

Lighting Compliance

Parks, Sanctuaries, and Communities, please fill out the applicable row to describe your lighting compliance rate (%) with your Lighting Management Plan/Policy (whole numbers only):

	Year of Certification	Compliance % in Original Application	Current Compliance %	Anticipated % for Next Reporting Period
Communities	2018	80	80	80

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:

- Continued to review all new development to ensure compliant lighting is planned for the development.
- Respond promptly to all lighting violation complaints. 24 complaints were received in 2022. All have been brought into compliance or are in the process of being brought into compliance.

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

No

Describe any delays or interruptions, if any, that have impacted your ability to meet your lighting compliance requirements:

The replacement of the bollard lights around Fountain Park is taking longer than initially anticipated. The lights that were installed just prior to receiving the Dark Sky designation were compliant at the time of purchase but were subsequently removed from the approved list. It was anticipated that, given the harsh temperatures and spray from the fountain, these fixtures would begin to fail and some of them would begin to be replaced by now. However ever, that has not occurred. There are approximately 280 of these lights and the cost to replace each one is around \$1000. The Town does not have the budget capacity to replace all of the lights at one time. It is still the Town's plan to use compliant fixtures as replacements are made.

The Town Council approved an experiment conducted by the Fountain Hills Dark Sky Association to temporarily remediate the glare from a handful of the bollards using black matte paint. The experiment was a success and Town Council allowed a volunteer team led by FHDSA to apply the coating to all the bollards at

the park. This is a temporary fix until we can replace all of the bollards. We've received dozens of positive comments about this effort.

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:

No changes have been made.

Outreach, Education, and Media

Please fill out the following table to summarize all outreach efforts from the past reporting period (whole numbers only).

Total # of Events	# of Unique Efforts Offered	Total # of Attendees for All Events
25	5	6000

Note - "unique efforts" offered represent different programs at your site. For example, all star/astronomy related events should be classified as one type of effort, "night hikes" as another type of effort, etc.

For each unique event type your Place hosted, provide all of the following information (up to 100 words per entry; 1000 total word limit): Event name; Date or range of dates of all events under that name; Number of attendees; Brief description of the event and the values that you promoted (i.e. wildlife/ecology, lighting, culture/heritage, IDSP status, ordinance/policy, astrotourism, energy security and conservation, human health, etc.).

- 1) United Methodist Church; 2-13-22; 25; Discussed the impact of light pollution and status of the IDSDC; light pollution, nocturnal animals, human health
- 2) FH Women's Club; 2-19-22; 85; Light pollution, ways to mitigate it, and mission of FH Dark Sky Association; Reducing the impact of unneeded artificial light at night, wildlife conservation, human health and energy conservation
- 3) ASU Marston Theater Virtual Night Sky; 2-23-22; 300; Discussed the impact of light pollution and the status of the IDSDC; light pollution, nocturnal animals, human health
- 4) FH Rotary Club; 3-10-22; 50; Discussed the impact of light pollution and the status of the IDSDC; light pollution, nocturnal animals, human health
- 5) FH Realtors; 3-18-22; 40; Light pollution, ways to mitigate it, and mission of FH Dark Sky Association; Reducing the impact of unneeded artificial light at night, wildlife conservation, human health and energy conservation
- 6) Astronomy on Tap; 7-8-22; 60; astronomy
- 7) Fountain View Village; 7-25-22; 17; Light pollution, ways to mitigate it, and mission of FH Dark Sky Association; Reducing the impact of unneeded artificial light at night; wildlife conservation, human health and energy conservation
- 8) Sagewood Senior Independent Living Community; 10-27-22; 85; Discussed the impact of light pollution and the status of the IDSDC; light pollution, nocturnal animals, human health
- 9) FH Men's Discussion Group; 11-7-22; 45; Benefits of dark skies in the James Webb space telescope; astronomy, reducing the impact of unneeded artificial light at night, wildlife conservation, human health and energy conservation 10) Private School; 11-7-22; 12; Demonstration of all attributes of light and benefits of dark skies; reducing the impact of unneeded artificial light at night,

wildlife conservation, human health and energy conservation

- 11) FH Community Center; 11-14-22; 50; Covered the techniques for finding longitude at sea, including lunar methods that require dark skies; astronomy
- 12) Volunteer Expo; 1-26-22; 200; Light demo display use to demonstrate effects of improper lighting, role of FHDSA; light pollution
- 13) FH Chamber of Commerce, FH Day; 3-26-22; 100; light pollution, ways to mitigate it, and mission of FH Dark Sky Association; light pollution & importance of dark skies, IDA certification
- 14) Thanksgiving Day Parade; 11-24-22; 2000+; Parade float with planets, earth and dark sky communities; importance of dark skies
- 15) Picnic at the Park; 6-17-22; 300; stargazing; astronomy
- 16) Sonoran Conservancy of FH; 3-10, 4-8, 5-9, 9-1, 10-1, 11-1, & 12-2-22; 150; stargazing hike; astronomy
- 17) International Observe the Moon Night; 10-1-22; 375; stargazing, interviews, IDSDC, Astrophotography; astronomy
- 18) FHDSA Member Appreciation Dinner & Start party; 11-6-22; 85; stargazing, nocturnal animals; astronomy, nocturnal animals
- 19) Dark Sky Festival; 3-26-22; 2000+; reducing the impact of unneeded artificial light at night, wildlife conservation, human health and energy conservation
- 20) RMS Realtor Meeting; 3-15-22; 40; Presentation for realtors about how to promote FH as an International Dark Sky Community to their clients
- 21) Sonoran Conservancy of FH; 12-30-22; 26; Stargazing hike at Adero Trailhead;

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

The IDA Phoenix Chapter set up a booth at our Dark Sky Festival on March 25. We promote IDA on our website. We spoke of IDA at our Members-Only Star Party.

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

We held a Student Art Contest in conjunction with our Dark Sky Festival. Our Star Dudes and stargazing hikes include cultural star stories in their experiences.

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:

Our festivals have grown each year by a few hundred attendees. The stargazing hikes are limited to 20-30 people for safety and the reservations fill up within 2 days. The general feedback we always get is a sense of awe and delight.

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











Provide social media handles or website links used to promote dark skies (these

will be added to your Place's IDA page):

http://fhdarksky.com https://www.facebook.com/FHDarkSkyAssociation

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

No

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.



Fountain Hills Dark Skies m....docx

To update our records, please provide a photo of your erected sign with your respective International Dark Sky Place label:



Briefly describe how educational materials are being dispersed/provided at your Place:

Informational rack cards about smart lighting practices are located at the Community Center, Town Hall, the Chamber of Commerce, the Fountain Hills Library, and are distributed to new homeowners through the Neighborhood Property Owners Association. We also hand out materials at our Astronomy on Tap events, Star Parties, and festival.

Describe any permanent or temporary exhibits that have been created this reporting period (these may include trails, informative waysides, interpretation signs, gift shop items, etc.):

MERCHANDISE:

FHDSA T-shirt:

https://drive.google.com/file/d/1WGigGou_Ka0E49Sjw5tclN42Fl3XF4dX/view?usp=share_link FHDSA beer glasses:

https://drive.google.com/file/d/1NlyHJZdFWLFvSI5fnRPbcGrDcAUtwb8Z/view?

usp=share_link FHDSA wine glasses:

https://drive.google.com/file/d/16j8SHklvkW9hM0i3JYb7n1YJDewDFJ2U/view?usp=share_link

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 2023 reporting period:

The Fountain Hills Dark Sky Association launched a membership program. The Town has written about dark skies in Fountain Hills in its quarterly publication, Fountain Hills First. The Town produced a new promotional video that includes dark skies as a reason to visit Fountain Hills.

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:

- Town of Fountain Hills Full partner and ad hoc grant funder
- Fountain Hills Cultural and Civic Association Partner and 501c3 parent
- International Dark Sky Discovery Center (in development) Affiliate and supplemental support
- Arizona State University School of Earth and Space Exploration Outreach and educational events
- Fountain Hills Chamber of Commerce Events and business lighting compliance
- Fountain Hills Community Foundation Outreach grants
- Sonoran Conservancy of Fountain Hills Outreach, night hikes
- McDowell Sonoran Preserve outreach, dark sky issues
- Republic Services Events
- Adero Scottsdale Resort Events
- Neighborhood Property Owners Association of FH Education and lighting compliance

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

- Town of Fountain Hills \$25000 grant fund to underwrite signature activities at the annual FHDSA Festival
- Town of Fountain Hills \$5000 to the general fund for education and awareness
- ACE Hardware of FH \$500 for the Festival
- ACE Hardware of FH \$3000 to the general fund for education and awareness
- Fountain Hills Community Foundation \$625 grant funds for education
- Republic Services \$1000 for the Festival event
- Shea/Connolly \$1000 for the Festival event
- Fountain Hills Cultural and Civic Association \$1000 education and awareness

Have you collaborated with an IDA Delegate or IDA Chapter on dark-sky issues since the last reporting period? If so, please describe:

IDA Phoenix Chapter

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 have identified as prospective partners the two tribal communities that abut Fountain Hills for outreach and lighting compliance possibilities. Both tribes operate large casinos on their reservation land. During 2022 we have not pursued

any collaborative activities with either an IDA Delegate or Chapter.

To our knowledge there are presently no conservation or research programs within our geographic area. It is our expectation that once the proposed Discovery Center project is funded and moving forward significant opportunities for expanding partnerships and affiliations will occur.

Success in Light Pollution Control, Leadership, and Future Threats

For Dark Sky Communities, briefly describe any new or ongoing projects and/or renovation activities that have taken place during this reporting period:

Town Council approval of the site plan for the International Dark Sky Discovery Center to be built on the Town complex.

Have the "threats" identified in your application for certification:

Stayed the same

Provide a brief description of how you will continue to manage "threats" over the next year:

The Town will continue to manage its own properties in conformance with the Outdoor Lighting Control Ordinance and enforce the ordinance on private development projects that occur throughout the Town.

Change in Ownership, Place Size, or Access

Have there been any changes to the size, access and/or boundaries of your Place (this could be property acquisition, sale, road development/closure, easement access, etc.)? If so, please describe:

No changes.

What is the total size of your Place (in square kilometers only)? 52.63

For Dark Sky Communities and Reserves, what is the current population size? 24987

Additional Information

What do you consider the greatest single benefit of the IDA certification to your location?

The recognition it gives our community as a special place for our residents and visitors.

Did you have any dealings with IDA over the last 12 months regarding any certification issues? How were they handled by IDA?

No