

Nomination Package for the International Dark-Sky Association Dark Sky Community Designation



### Westcliffe & Silver Cliff, Colorado, USA

Where the mountains meet the stars!



Submitted by Jim Bradburn, President, Dark Skies, Inc., P.O. Box 634, Westcliffe, CO 81252

Committee Members:
Steve Janssen, Vice-President
Susan Frostman, Secretary/Treasurer
Steve Linderer, Board Member &
Responsible for SQM Readings
Rex Stage, Board Member
Ed Stewart, Board Member &
Responsible for Application Preparation

2011 student art contest winners (from the top): Cloud Spitzgaden, Corey Lewenkamp, Kristine Henrich, and Aspen Anderson Jane Morton, the Female Cowboy Poet 2007, expressed how easily the dark sky can be lost when she read her poem "Country Dark" at the September, 2014, Westcliffe Town Council meeting in support of our Dark-Sky Community certification.

### COWBOY POETRY & Music

### JANE MORTON



### Country Dark

New neighbors put in new barn lights installed at rooftop height.
Two bright new post lights mark their drive and burn throughout the night.

They put big lights on their garage and at each entry way.
Lights blaze away from dusk to dawn and turn night into day.

Night wrapped itself around us, and moonlight lit our ways, until those glaring lights went in and dimmed the silvery rays.

We lost the country dark we had, and with it went the stars. Lights water down the Milky Way, obscure Venus and Mars. The brightness spreads across the sky, blights land these folks don't own, corrupting and destroying dark, which we had always known.

Ancients gazed at their night skies and saw infinity, While we can't see beyond the glow in our vicinity.

Lights pointing down instead of up would cut down on the glare, and timers, well as sensors, might diminish our despair.

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http://www.cowboypoetry.com/

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Note: major sections are "bookmarked" for easy selection if using Adobe Reader to view this document. If the bookmark icon is not visible in your toolbar pane, then use menu View  $\rightarrow$  Show/Hide  $\rightarrow$  Navigation Panes  $\rightarrow$  Bookmarks.

Also the page numbers above are linked to their respective pages by clicking the page number.



### International Dark-Sky Community Certification Towns of Westcliffe and Silver Cliff Nomination Application

### Part I — Dark Sky Community Application Introduction

Shortly after the inception of Dark Skies, Inc. of the Wet Mountain Valley on March 5, 1999, Smokey Jack, President, negotiated an agreement with the West Custer County Hospital District to use dark sky friendly lighting fixtures. She realized that awaking growth in the towns and the surrounding Wet Mountain Valley would soon get the attention of nationally operated chain and franchised businesses that typically follow the corporate building style that rarely specifies dark sky friendly lighting fixtures. But she also knew that the biggest area of resistance would be the mindset of the local population.

Thus began a long 15-year process to change the mindsets of these old western communities from one of "Don't tell me what I can and can't do." to "How can we protect our beautiful Wet Mountain Valley's rural charm from being lost to big-city problems like light pollution?" She and the founding members of Dark Skies decided to approach this process with education of the problem and of its solutions until the mindset had changed sufficiently to campaign for lighting ordinances. In Part IV Successful Projects in Light Pollution Control, Education, and Awareness, beginning with page IV-18 there are many samples of how the education process has and is still being conducted with year-round newspaper advertising (25 insertions), an art contest at county school district, the Dark Skies website, a publication included with the town/county building permit packets, presentations at local organizations, and star parties (usually with a lecture presentation where dark sky issues are included).

The effectiveness of this education effort is reflected in the Town of Westcliffe trustees' decision to install a test LED street light without prompting from Dark Skies, the school district's decision to change shielded parking lot lights to LED fixtures, and, on a much larger scale, with increasing public financial support of Dark Skies objectives without there being a large goal set for a specific project. Over the past 5 years (2009 - 2013) we had an annual average of 71 contributors and contributions of \$5,716. Over 10% of the campaign's contributors give to Dark Skies. Most contributions come from within Colorado, but we also have received contributions from seasonal residents from whom we have often heard that they plan on retiring here in the future and want the nightscape preserved for when they can enjoy it full-time. And from out-of-state visitors that found that their visit here inspired them to want to keep it a special place to which to return.

With the certification of Westcliffe and Silver Cliff as a Dark Sky Community, there is every reason to believe that dark skies will become a source of civic pride and economic success for the future years to come. Sadly, Smokey did not live to see this possibility.

### IDA Member Nomination Letter—

Dar

Dark Skies, Inc., P.O. Box 634, Westcliffe, CO 81252-0634 <www.wetmtndarkskies.org>

"Where the mountains meet the stars"

International Dark Sky Association 3225 North First Avenue Tucson, AZ 85719

November 10, 2014

Dear IDA Board of Directors:

As an IDA member and president of Dark Skies, Inc. of the Wet Mountain Valley, I hereby nominate the Towns of Westcliffe and Silver Cliff, Colorado, USA, to become a Dark Sky Community. Since these small, adjoining towns share a portion of their boundaries, they should be considered as one entity for this nomination.

I am a new member of IDA, but have been a member of the local Dark Skies organization since 2005 and its president since 2010. I joined our local organization after it had been encouraging the towns to reduce their light pollution since 1999. Since joining, I primarily work with others in our group and within my community to preserve the night sky heritage of this beautiful mountain valley for generations to come.

Through my many organization and local government meetings, personal contacts, emails, and other interpersonal interactions, I've seen the mindset of life-long locals and newcomers alike, come over to the realization that the Valley's nightscape has real economic value and is worth preserving. To have businesses and individuals contact Dark Skies for guidance in dealing with their own lights that they now recognize as being a source of light pollution, is most gratifying. To read in the local newspaper, editorial columns and *Letters to the Editor* expressing support for our efforts, and the many letters of support for this application, is a great source of pride and accomplishment.

I believe the Towns of Westcliffe and Silver Cliff are more than qualified to receive the designation of being an IDA Dark Sky Community.

Sincerely,

V- 0026

Jim Bradburn, President, Dark Skies, Inc. of the Wet Mountain Valley

### Colorado Section – International Dark Sky Association

c/o Chamberlin Observatory 2930 E. Warren Avenue Denver, CO 80210 http://www.du.edu/~rstencel/COIDAblog.html



24 October 2014

Dark Skies, Inc., P.O. Box 634, Westcliffe, CO 81252

On behalf of the Colorado Section of the IDA, I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado. Approval will make these towns the highest in altitude of any designated. It has been an inspiration to be aware of the local group, Dark Skies, that has been working diligently to reduce the light pollution of Colorado's wonderful "nightscape" of star-filled night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud. These towns serve as a crucial counter-example to the wanton and relentless destruction of dark skies occurring across much of Colorado.

Viewing the nightscape from an isolated refuge and dark location like these Colorado towns can provide a transformative experience of unparalleled beauty. This sense of awe, that most of human history has experienced, has been lost to urban dwellers. Only through protection of remaining areas like Westcliffe-Silver Cliff, can residents and visitors continue to marvel at the view. Because economics matter in success of this preservation effort, designation is key to promoting "eco-tourism" - which can become an important part of the towns' economic success. In parallel, the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances. Designation can help provide additional incentive for these towns to act to protect their special resource.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of creatures - including humans - that are important for long-term health. Urban dwellers need to wake up to these impacts on all living things within the zone caused by their excessive lighting and related pollutions.

I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it as a transcendently valuable example to all communities in Colorado to think and follow this path of light pollution solutions.

Astronomically,

\electronically signed

Dr. Robert Stencel, Coordinator - Colorado section of IDA, colorado.ida@gmail.com

State Representative
JAMES D. WILSON
Colorado State Capitol
200 East Colfax Avenue, Room 271
Denver, Colorado 80203
Office: 303-866-2747
Email; james.wilson.house@state.eo.us



Member:
Education Committee
Finance Committee
Public Flealth Care &
Human Services Committee

### COLORADO

### HOUSE OF REPRESENTATIVES

STATE CAPITOL DENVER 80203

October 30, 2014

TO: The International Dark-Sky Association

FROM: Representative James D. (Jim) Wilson

RE: Designation of Westcliffe and Silver Cliff

Dear Selection Committee Members,

I am writing in support of the nomination of the adjoining towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado. The certification of these communities would give them the unique status as being the highest in altitude of all the Dark-Sky communities.

A lot of work has been done by members of both communities towards making this designation a reality. The ability to view the nightscape from a dark location like these Colorado towns is an experience unequalled anywhere else in America. The Dark-Sky designation would be a boon to tourism and economic development in the area.

I would urge the members of the selection committee to give the application of the Westcliffe and Silver Cliff communities your most serious consideration.

Sincerely,

Representative James D. (Jim) Wilson

### Town of Westcliffe Trustees and Mayor Supporting Nomination—



(719) 783-2282 • www.townofwestcliffe.com 305 Main • P.O. Box 406 • Westcliffe, CO 81252

International Dark-Sky Association c/o Dark Skies, Inc.

October 10, 2014

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely,

Christy Veltrie, Mayor Audrey Gluschke, Trustee

Rod Thornburg, Trustee

And Thornburg, Trustee

And Trustee

Tohn Johnston, Trustee

Art Nordyke, Trustee

Paul Wenke, Trustee

### Town of Silver Cliff Supporting Nomination—



International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans that are important for long-term health.

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

F. Weber

Sincerely,

Larry Weber, Mayor Town of Silver Cliff

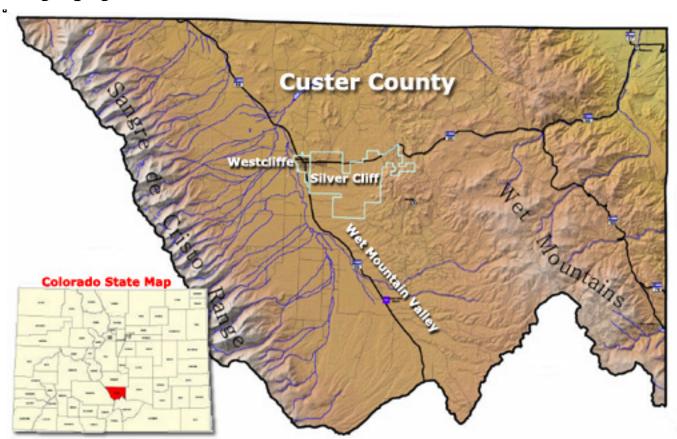
> E-Mail: SilverCliffTown@CenturyTel.net / www.SilverCliffCo.com 612 Main Street - P. O. Box 154 Silver Cliff, Colorado 81249 Town Clerk: 719-783-2615 / Building & Zoning: 719-783-3034



### International Dark-Sky Community Certification Towns of Westcliffe/Silver Cliff Nomination Application

### Part II — About the Adjoining Towns of Westcliffe and Silver Cliff

### Geography-



Westcliffe/Silver Cliff are located west of the geographic center of Custer County, Colorado at 38°8′N 105°27′W with the singular ZIP code of 81252. They lie in the Wet Mountain Valley, between the Wet Mountains to the east and the Sangre de Cristo Range to the west. Westcliffe is at the intersection of State Highways 69 and 96; 50 miles west of Pueblo; 50 miles southwest of Canon City; 80 miles southwest of Colorado Springs; and 175 miles south/southwest of Denver. The adjoining Town of Silver Cliff is immediately to the east of Westcliffe on Highway 96 (Westcliffe's east boundary shares a portion of Silver Cliff's west boundary).

According to the United States Census Bureau, Westcliffe has a total area of 1.2 square miles (3.2 km²) and Silver Cliff's area is 15.5 square miles (40.1 km²), all of it land. In the surrounding county, 40% of the county is public land, predominately US Forest Service and BLM. Of the remaining 60% in the county that is private land, 75% of it is agricultural.

In the following view, the adjoining Towns of Westcliffe and Silver Cliff are seen nested in the Wet Mountain Valley with their close proximity to the Sangre de Cristo Mountain range to the west. Westcliffe's altitude is recorded at 7,888' or 2,404m, and Silver Cliff's at 7,986' or 2,434m, which will make them the highest Dark-Sky Community.



### Climate—

Custer County has a high altitude, low humidity climate that fluctuates seasonally due to its varied topography. Based on climate data compiled since 1949, the average daily temperature in Custer County is 41.7° F. The average January temperature at Westcliffe and Silver Cliff is 22.0° F; the average July temperature is 63.4° F. Other seasonal climate conditions in Custer County include average annual precipitation of 14.4", an average snowfall of 92", and an average wind speed, highest in April, at 10.4 MPH. The growing season is generally less than 90 days. Air quality is considered to be excellent, and the scenery and panoramic views of the landscape attract both residents and visitors to Custer County.

### Demographics—

As of the census of 2000, there were 417 people, 194 households, and 108 families residing in Westcliffe. The population density was 367.1 people per square mile (141.2/km²). Neighboring Silver Cliff has a population of 587, and density of 38 people per square mile. Custer County has a population of 5,410 which includes both Westcliffe, Silver Cliff, and the unincorporated area count of 4,255. One relevant note: the population is so low in the towns and all of Custer County, there are zero lighted traffic signals.

### Wildlife-

Both the Towns of Westcliffe and Silver Cliff are in the middle of a spectacular wildlife habitat that would be negatively impacted by light pollution if it is not controlled — as noted in the IDA publication *Light Pollution and Wildlife*: "Wildlife and fish experience this (circadian rhythm) disorientation of time when there is too much artificial light at night. Behavior governing mating, migration, sleep, and finding food are determined by the length of nighttime. Light pollution negatively disrupts these age-old patterns. See inside for details about the ill-effects of light pollution on our environment and wildlife."

It is not unusual to see mule deer, Abert squirrels, skunks, hawks, golden eagles, ravens, pronghorns, black bears, coyotes, foxes, and even mountain lions within the towns' limits. There are even two resident herds of mule deer that roam among the homes of the towns. These animals are certainly an everyday sight in the immediate county area, too, along with prairie dogs, bobcats, jack rabbits, bald eagles, elk, bighorn sheep, porcupines, raccoons, and several species of owls. Colorado Division of Wildlife (DOW) identifies 73 species of birds and 38 mammal species in Custer County.



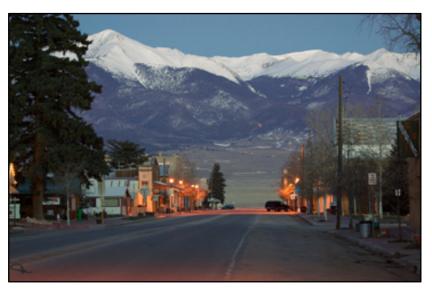
### History—

Custer County began like many Colorado communities, a pristine wilderness that provided Native Americans with a pleasant existence for centuries. By 1550, the Spanish Conquistadors had arrived in the Sangre de Cristo Mountains to conquer lands, find riches, trade with Indians and convert them to Christianity. Then came the great explorers; Lieutenant Zebulon Pike in 1806 and Lieutenant John Fremont with renowned scout Kit Carson in 1845. Soon, mountain men and fur trappers followed, lured by the abundant wildlife in the lush Wet Mountain Valley. Some stayed to build trading posts, but no permanent settlement was attempted.

In 1869, the first pioneers, arrived to claim a piece of rich ranch land. In 1870, an ambitious group of German colonists journeyed to the valley. Their leader, Carl Wulsten, promised to take them from the greasy, poorly ventilated factories, dirty alleys and cellars of Chicago to a new land and new hope. These strong, fair haired, young men and women traveled by train until the tracks ended. They continued by wagon and mule teams with a military escort from Fort Lyons. Naming their new town after Vice President Schuyler Colfax, the man who obtained the government sponsorship that made this mission possible, the group settled into "Colfax" fifteen miles west of present day Westcliffe.

It was believed to be the first effort of this kind ever organized in America and the new-comers were welcomed with great ceremony. These brave settlers started their new lives with the nearly impossible switch from factory work to farming. The mistakes made were to be expected; failed crops, mismanagement of funds and more. By fall of the same year, the original 100 families disbanded and the Colfax disappeared.

In 1881, a narrow gauge railroad track was completed. Excitement in Silver Cliff built as the Denver and Rio Grande carved its tracks through the canyon of Grape Creek. Joyous banquets, speeches, balls, railroad excursions and mine tours continued for days, but some saw a flaw in the plan. The tracks stopped a full mile west of Silver Cliff.

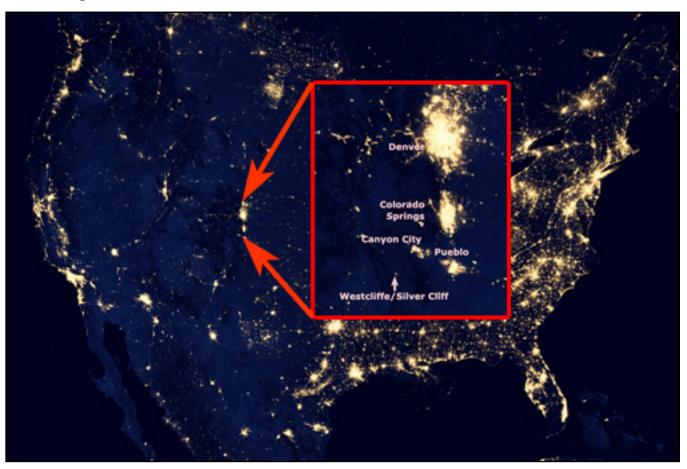


Quietly, but with great pace, the new town of Westcliffe was built at the end of the railroad tracks. Famed developers Dr. William Bell, founder of Manitou Springs and General Palmer, founder of Colorado Springs, planned the town before the completion of the Denver and Rio Grande Railroad line, Land was purchased and the town was named after Bell's hometown in England. Westcliffe pulled the energy from Silver Cliff and emerged as the central town in the Wet Mountain Valley. By

1890, the gold and silver had diminished and Silver Cliff was nearly gone. Westcliffe began to thrive as the supply center for local ranchers and farmers. Prosperity returned to the valley as the ranching history began.

The frenzied gold rush days have passed and the more peaceful days of ranching continue. Today, Custer County has eight Centennial Farms. Each historic farm (ranch) is still operated by the same family that established them over one hundred years ago. These families along with the dedicated one-room schoolhouse teachers and many others have shaped the county into the rare, close knit and caring community it is today.

Part of that caring is a sense of preserving the pioneer heritage that includes seeing the night sky as they did. Since 1998, Dark Skies, Inc., has worked to educate the public to the value of that preservation not only for those who value it as a hobby but also for the economic value in eco and astro-tourism. With many projects completed by Dark Skies and its educating the public, Westcliffe is one of the darkest areas in the country as evidenced by space images taken at night:



For additional information, download the Custer County Master Plan at: <a href="http://www.custercountygov.com/pdf/Master Plan.pdf">http://www.custercountygov.com/pdf/Master Plan.pdf</a>>

An informative time lapse video is available at: <a href="http://vimeo.com/108023864">http://vimeo.com/108023864</a>



### International Dark-Sky Community Certification Towns of Westcliffe and Silver Cliff Nomination Application

### Part III — Lighting Ordinances

Note: the ordinance documents have been edited down to the dark sky related language.

### Town of Westcliffe-

### Town of Westcliffe — Land Use Ordinances

### Chapter 1 ADMINISTRATION

SECTION	NS: PAG	€
10-1-3:	Authority and Enforcement	
10-1-6:	Definitions	,

### 10-1-3: Authority and Enforcement

- A. Authority. The Westcliffe Land Use Code is authorized by and enacted pursuant to Article 23, Chapter 31, of the Colorado Revised Statutes, as amended, and hereby is declared to be in accordance with all provisions of same. (Ord. 2-2007, eff. 9/6/2007)
- B. Enforcement. This ordinance hereby establishes and shall be enforced by an officer appointed by the Board of Trustees to be known as the "Zoning Enforcement Officer." (Ord. 2-2007, eff. 9/6/2007)
- C. Zoning Enforcement Officer. An official of the Town appointed by the Board of Trustees charged with authority for administration and enforcement of this Title.

### 10-1-6: Definitions

### C. Definitions:

- 47. Fully Shielded: A lighting fixture constructed in such a manner that all light emitted by the fixture, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal. (Ord. 8-2014, eff. 12/13/2014)
- 48. Light Pollution: any and all nuisances caused by adverse effect of man-made light, including but not limited to glare, light trespass, sky glow, visual clutter, and wasted energy due to excessive or unnecessary lighting; or artificial light that unnecessarily diminishes the ability to view the night sky or is disruptive to flora and fauna. (Ord. 8-2014, eff. 12/13/2014)
- Light Trespass: Light projected across property lines or into the public rightof-way when it is not required or permitted to do so. (Ord. 8-2014, eff. 12/13/2014)
- 50. Lumen: A unit used to measure the amount of light that is produced by a light source. The lumen quantifies the amount of light energy produced by a lamp at the lamp, not by the energy input, which is indicated by the wattage. One foot-candle means one lumen per square foot of area illuminated. (Ord. 8-2014, eff. 12/13/2014)
- Unshielded Fixture: A fixture which, as designed or installed, emits all or part of the light above the lowest part of the light source. (Ord. 8-2014, eff. 12/13/2014)

### 10-1-12: Use by Special Review

 Will not cause significant air, odor, water, light or noise pollution; (Ord. 2-2007, eff. 9/6/2007, Ord. 8-2014, eff. 12/13/2014)

### Chapter 3

### SUBDIVISION REGULATIONS

SECTIONS:		PAGE	
10-3-6:	Plats and Data	40	
10-3-8:	Required Improvements	50	

- A utilities plan shall be submitted showing at least the following: (Ord. 2-2007, eff. 9/6/2007)
  - Include street light plan. (Ord. 8-2014, eff. 12/13/2014)
- Public improvements required.
  - 6. Street lights. Street lighting and associated underground street lighting supply circuits shall be installed. The minimum requirement shall be .4 foot candles on the street. All street lights shall be fully shielded such that they produce no light higher than the horizontal plane of the light source. The street lighting plan specifying the number and approximate location of street lights must be included on the final plat. The style of fixture shall be the standard, Town-approved style for street and parking lot lights within the Town.. (Ord. 2-2007, eff. 9/6/2007, Ord. 2-2014, eff. 12/13/2014)

### Chapter 4

### SUPPLEMENTARY REGULATIONS

SECTIONS: PAGE
10-4-3: Outdoor Lighting 59

### 10-4-3: Outdoor Lighting-

- A. All outdoor lighting shall be shielded so that direct light from the fixture does not trespass on neighboring property. Figure A shows examples of fixtures that are generally Unacceptable or Acceptable in meeting this section. A practical way to determine if a light fixture will conform to this provision is to not allow light to escape above a horizontal plane running through the lowest point of the luminous elements: the lamp or tube, any reflective surface or lens cover (clear or prismatic) must not be visible when viewed from above or the side.(Ord. 2-2007, eff. 9/6/2007, Ord. 2-2014, eff. 12/13/2014)
- B. Lighting shall be so placed as to prevent the light rays or illumination there from being cast beyond property lines. (Ord. 2-2007, eff. 9/6/2007)
- All metal halide and fluorescent fixtures shall be filtered with glass, acrylic or translucent enclosures. (Ord. 2-2007, eff. 9/6/2007)
- D. The installation of any mercury vapor fixture or lamp for use as outdoor lighting is prohibited. Only high pressure sodium (HIPS), low pressure sodium (LPS), LED or incandescent fixtures shall be permitted in commercial and multifamily residential parking areas. IN addition, the level of illumination shall not exceed the maximum lumens as stated in these ordinances. (Ord. 2-2007, eff. 9/6/2007, Ord. 2-2014, eff. 12/13/2014)
- E. All non-conforming outdoor light fixtures in existence prior to December 1, 2000, shall be deemed a legal nonconforming use and may be continued subject to the requirements of Section 10-1-7.B. (Ord. 2-2007, eff. 9/6/2007)
- F. Lights 100 watts and less per fixture, fluorescent lights 40 watts and less per fixture, gas fired fixtures, and lights used for holiday decorations are exempt from the requirements of this ordinance. (Ord. 2-2007, eff. 9/6/2007)
- G. The purpose of these lighting standards and the policy of the Town of Westcliffe is to minimize glare and light trespass beyond the property boundary of each lot by limiting outdoor lighting that is misdirected, excessive or unnecessary. The density of outdoor lighting, whether shielded or unshielded, shall not exceed in aggregate 50,000 lumens per acre in all zones. (Ord. 2-2014, eff. 12/13/2014)

### Silver Cliff Lighting Ordinance, February 23, 2015—

SECTION 1. The purpose of this ordinance is to protect and preserve the quality of life, health, and safety of the citizens of the Town of Silver Cliff by providing adequate lighting, enacting a street light plan, and installing outdoor lighting that prevents and reduces unnecessary light pollution.

SECTION 2. The Board of Trustees of the Town of Silver Cliff has determined that it is in the best interests of the Town to be classified as a Dark Skies Community by the International Dark-Sky Association.

### **SECTION 3: Definitions:**

### Fully Shielded:

A lighting fixture constructed in such a manner that all light emitted by the fixture, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal.

### Light Pollution:

Any and all nuisances caused by adverse effect of manmade light, including but not limited to glare, light trespass, sky glow, visual clutter, and wasted energy due to excessive or unnecessary lighting; or artificial light that unnecessarily diminishes the ability to view the night sky or is disruptive to flora and fauna.

### Light Trespass:

Light projected across property lines or into the public right-of-way when it is not required or permitted to do so.

### Lumen:

A unit used to measure the amount of light that is produced by a light source. The lumen qualifies the amount of light energy produced by a lamp at the lamp, not by the energy input, which is indicated by the wattage. One foot-candle means one lumen per square foot of area illuminated.

### Unshielded Fixture:

A fixture which, as designed or installed, emits all or part of the light above the lowest part of the light source.

### **SECTION 4: Outdoor Lighting:**

The purpose of these lighting standards and the policy of the Town of Silver Cliff is to minimize glare and light trespass by limiting outdoor lighting that is misdirected, excessive, or unnecessary. The density of outdoor lighting, whether, shielded or unshielded, shall not exceed in aggregate 50,000 lumens per acre in all zones.

- a) Highway, neighborhood street, and property lighting shall conform to the ordinance of the Town of Silver Cliff as set forth, and the international Dark-Sky Association conformities.
- b) All outdoor lighting shall be shielded so that direct light from the fixture does not trespass on neighboring property. Figure A shows examples of fixtures that are generally Unacceptable or Acceptable in meeting this section. A practical way to determine if a light fixture will conform to this provision is to not allow light to escape above a horizontal plane running through the lowest point of the luminous elements: the lamp or tube, any reflective surface or lens cover (clear or prismatic) must not be visible when viewed from above or the side.
- c) Street lighting and associated underground street lighting supply circuits shall be installed. The minimum requirement shall be .4 foot candles on the street. All street lights shall be fully shielded such that they produce no light higher than the horizontal plane of the light source. The street lighting plan specifying the number and approximate location of street

- lights must be included in the final plat. The style of fixture shall be the standard, Townapproved style for the street and parking lot lights within the Town.
- d) The installation of any mercury vapor fixture or lamp for use as outdoor lighting is prohibited. Only high pressure sodium (HIPS), low pressure sodium (LPS), LED or incandescent fixtures shall be permitted in commercial and multifamily residential parking areas. In addition, the level of illumination shall not exceed the maximum lumens as stated in this ordinance.
- e) Lighting shall be placed as to prevent the light rays or illumination there from being cast beyond property lines.
- f) Height of the light pole is set to provide the most efficient lighting for the area with safety of the Town as priority, and the photometrics (cone of light) set by limiting the height of the light source. The maximum height of the poles from the top to the ground will not exceed 30 feet.
- g) All metal halide and fluorescent fixtures shall be filtered with glass, acrylic or translucent enclosures.
- h) Incandescent Lights 100 watts and less per fixture, fluorescent lights 40 watts and less per fixture, gas fired fixtures, and lights used for holiday decorations are exempt from the requirements of this ordinance.
- i) Dark Sky Association Regulations and Recommendations for lighting fixtures, wattage output, Kelvins, Lumens, and Photometrics are incorporated in this ordinance to maintain certification as an International Dark Sky Community and participant.

### **SECTION 5**

That this ordinance and rules, regulations, provisions, requirements, orders and matters established and adopted hereby shall take effect and be in full force 30 days from and after the date of its final passage, adoption, and publication.



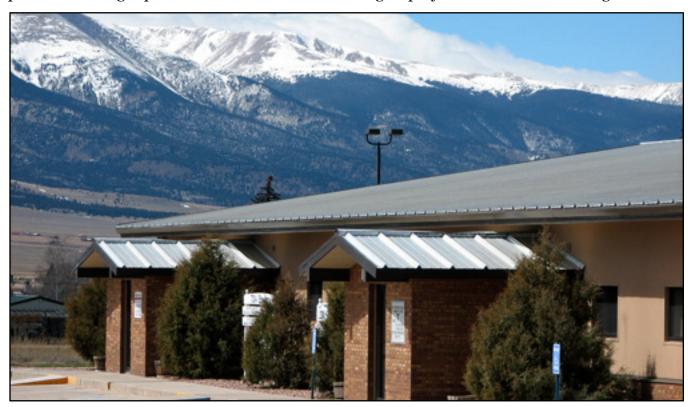
### International Dark-Sky Community Certification Towns of Westcliffe and Silver Cliff Nomination Application

### Part IV — Successful Projects in Light Pollution Control, Education, and Awareness

### Lighting Projects Since Inception of Dark Skies, Inc.-

In 1999, shortly after the inception of Dark Skies on March 5 of that year, Smokey Jack, President, negotiated an agreement with the West Custer County Hospital District to have shielded lights installed in their parking lot and on the building. Sign illumination that was dark sky friendly was also included. Fifteen years later, these fixtures are still in use.

This lighting project was the first in a long (15 years so far) process to change the mindsets of these old western communities from one of "Don't tell me what I can and can't do." to "How can we protect our beautiful Wet Mountain Valley's rural charm from being lost to big-city problems like light pollution?" This and the following 10 projects illustrate that change.



### Clinic's exterior lights to be Dark Skies friendly 1999 SEPTEMBER THURSDAY,

friendly was a topic of discussion at the West Custer County Hospital District's Parking lot lighting that is Dark Skiesmonthly board meeting Tuesday, Sept. 14.

When Bill and Smokey Jack, proponents side lights for the parking lot be hooded, in for Dark Skies, originally donated money to the new clinic they requested that outcompliance with Dark Skies. The Dark Skies organization is attempting to elim-Mountain Valley, by having exterior lights inate nighttime light pollution in the Wei

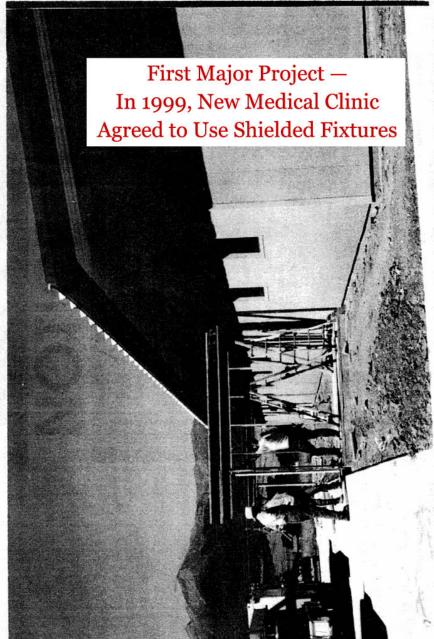
pole lights, and once they are installed it The clinic's lighting plans call for two will be determined if more of the hooded ights are needed for proper illumination.

was some discussion regarding painted boulders, located at the parking lot Prices and availability will be presented at brought up is the idea of engraved and entrances and illuminated by ground lights. signs at the new clinic. One proposal the October meeting. The board approved payments to Sei-fert's, Rocky Mountain Concrete, Shelter Systems, and Valley Pipeworks for work completed to date.

In other business, the board discussed practitioner Joe Franta. It was noted that since he started work in April he has seen an the patient load of nurse 209 patients a month.

The district's chief financial officer, researching an has been John Piquette,

requiring this service. the clinic "at this time,



Crews continue work on the new community clinic building along Hermit Lane in Westcliffe. The \$1.2 million facility scheduled to open next spring.

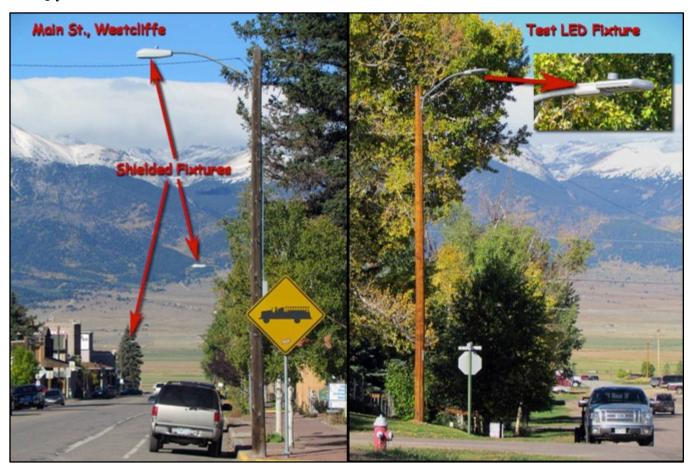
Trib photo by Donna Walstron.

It was created by Jenny Grosslight. The clinic now has a web site, look them up at www.custerguide.com/medical.

-Donna Walstrom

the best thing you Whetsone advised

**In 2001,** Dark Skies ran a successful community fund drive to finance the \$15,500 replacement cost of the 44 town-owned street lights of Westcliffe. In 2014, the town trustees decided to install a test LED fixture with the goal of reducing energy consumption by converting all the town-owned street lights. This decision, which came without any prompting from Dark Skies, illustrates the change in mindset that Dark Skies has worked towards over the last 15 years.



## Dark Skies project replaces Westcliffe street ligh

The streets in Westcliffe are brighter, town street lights have been replaced with but the night skies are darker now that 44

The \$15,500 project was funded by the shielded light fixtures were supplied and local Dark Skies organization, and installed by WestPlains Energy.

the

Smokey Jack, president of Dark Skies, didn't stock anything but expensive shoe old the Tribune that the organization School in 998, suggesting that a fully shielded light At that time, Dark Skies discovered town's street lights, will only put up fixfixture be installed on the basketball court. "WestPlains, which supplies tures they stock," Jack said, approached Custer County box lights."

WestPlains to offer the less expensive, the Westcliffe Board of Trustees approved fully-shielded light fixtures and in 1999 Eventually, Dark Skies. replacing the town's lights.

for the project. "All the funds to pay for Following the board's approval, Dark Skies began a fund raising effort to pay the new lights came from private donations," Jack said, "it was all contribu-

concurred, "Dark Skies paid the fees to go Westcliffe town manager Don Stuart from the old fixtures to the new and According to Jack, the new lights are WestPlains provided the lights."

placed, the difference is, the new fixtures direct the light to the ground where it is the same wattage as the lights they reneeded rather than up into the sky. Dark Skies paid for the lights and labor with donated funds.

"No light is emitted above a horizontal will see light on the ground and the buildthere will be no light in the sky but "you ings. It will make driving safer because line from the light source," she said. Viewing the lights from above, Jack said, there is no glare at night."

make the town's streets safer at night as Stuart said they won't reduce Although the new fixtures will help well as protect the Valley's beautiful night Westcliffe's energy bills. skies,

"It won't make any difference to the power bills," he told the Tribune, "We Stuart added that there are 21 additional street lights in town that are privately owned and were not replaced during this pay \$7 per light, regardless of usage. project.

Jack said that Westcliffe's light replacement project is in keeping with efforts across the nation, including in Colorado, to protect night skies from the glare of unshielded light fixtures.

She said Saguache County recently passed an ordinance requiring new lights be shielded and Chaffee County has a similar ordinance in the planning stages.

In addition, Gov. Bill Owens recently signed HB01-1160, which states:

lighting fixture installed using state funds Information provide by Dark Skies "As of July 1, 2002, any new outdoor with a rated output of greater than 1,800 lumens shall be a full cutoff light fixture.

explained that 1,800 lumens is approx-

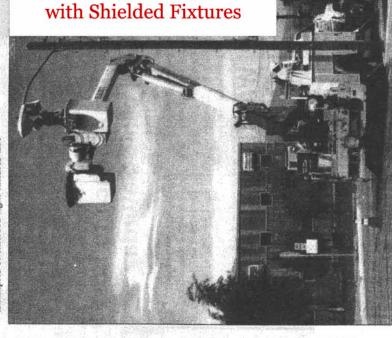
almost all state funded outdoor light fix-

Skies or the types of shielded light fixtures For additional information about Dark available, call Jack at 783-2935.

Examples of shielded light fixtures also

floor. Additional information is available at the office as well. Call 783-2924 for 114 Main in Westcliffe on the second may be seen at the organization's office

-Rayna Bailey



Largest Lighting Project —

In 2001, Westcliffe's Town Street Lights Were Replaced

le's 44 street lights with fully shielded fixtures. The new fixtures direct light to Crews with WestPlains Energy spent last week replacing the town of Westclifhe ground where it is needed and protect the Valley's night skies. cent bulb, so the new law will apply to mately equivalent to a 90 watt incandes-

**In 2004,** Dark Skies funded the replacement of the parking lot lights and wall packs at the Custer County School District facility.



In 2005, we funded the replacement of glaring street light fixtures with flat-lens, non-glaring units and the placement of shields on other fixtures used at the Round Mountain Water and Sanitation District treatment plant just north of downtown Westcliffe.

### Met Mountain Tribune

THURSDAY, SEPTEMBER 29, 2005

### Jumping on Dark Skies bandwagon, Round Mountain to replace lights

Plans are underway by the Round Mountain Water and Sanitation District to replace the existing lights at the sewer treatment plant with high efficiency bulbs, as well as shielded light units recommended by the Dark Skies organization.

The decision to replace the current lighting was made during RMW's regular board meeting earlier this month.

Total estimated cost of the project is \$1,697.43. RMW will pay \$1,197.43, while Dark Skies will pick-up the remaining \$500.

—MET with water attorney Bob Krassa, general attorney John Naylor and general water engineer Clyde Young to discuss the pending Johnson Place water court case.

Noted was that the case has been referred to the water judge and a trial has been scheduled to begin November 2006.

—AUTHORIZED the purchase of an air compressor for the lift station at a cost of \$180 in and back-up pump for the pump house. No cost estimates were given for the pump.



**In 2009,** a dollar discount store constructed a building in Silver Cliff with glaring wall packs and roof mounted fixtures that created extreme light trespass onto Highway 96 and onto neighborhoods for many blocks. An outpouring of complaints to the store and the Tribune's *Letters to the Editor* lead to the company management decision to turn off some of the lights when closed to business and to allow Dark Skies to install shielding on the wall packs — before and after photos below.





### New Store's Lights Generate Upset Citizen Response to Tribune, Store Agrees to Turn Them Off.

THURSDAY, MAY 14, 2009



### Letters

### Family Dollar Store Declined Dark Skies' Suggestion

Dear Jim:

We have been asked to submit this email to you as it was written to Mr. Allen Butler, Mayor of Silver Cliff, regarding the lights at the new Family Dollar store in Silver Cliff.

> Thank you. Barbara and Terry Napolitan

Dear Mr. Butler:

We are writing you to about the opening of the new Family Dollar store in Silver Cliff. This community has tried so hard to keep our natural rural atmosphere. Since the opening of this new store with their glaring lights all night, we have lost a precious part of our valley with the loss of our beautiful dark sky. And what a waste of energy! Also, it is a distraction to anyone driving by and a safety issue, especially being so close to our school with numerous evening activities.

We understand that Dark Skies tried working with their corporate office before construction to have shielded lighting fixtures installed and from what we understand, even offered to pay the difference in cost and were ignored.

Please see what you can do to have Family Dollar turn off these lights after closing time. We know you would have a battle before you to accomplish this, but we feel our beautiful valley is worth it.

> Thank you for your time. Barbara and Terry Napolitan Rural Westcliffe

### **New Store's Lights Too Extreme**

Dear Editor

I have noticed the extremely bright lights at night surrounding the new Family Dollar Store. One of the main attractions for living here in the Wet Mountain Valley is the magnificent, clear, unpolluted night-time sky.

We must all do whatever it takes to convince the managers of this store that such lights are neither needed nor welcome here.

Perhaps it will be necessary for the cities

of Silver Cliff and Westcliffe as well as the Custer County governments to create ordinances that would prevent the installation of obtrusive, environmentally damaging lighting. Such action could thereby protect one of the very valuable attributes of this beautiful place.

Virginia Powers Rural Custer County

### **Store to Turn Lights Out at Night**

Dear Editor.

After receiving approval from District Manager Dave Haverkorn and Regional V.P. Michael Canavin of Family Dollar, I am happy to report to the entire community that our night power lights at Family Dollar have been turned off. Several of our friends at "Dark Skies" are now stopping in to shop and thank Family Dollar for respecting the dark skies at night. This took effect last week

by leaving on only the canopy light just over our 2 front doors and windows, the street sign light and a few inside store lights at night.

After spending most of my life in the tiny town of Pitkin, Colorado (population 88 and 1 grouch), near Gunnison, Co., I too enjoy seeing the mighty rural dark skies here in Colorado.

Sincerely, Gary Pearson Manager, Family Dollar **In 2009 and 2010,** Dark Skies worked with the Custer County Commissioners to replace the Custer County Courthouse exterior lighting with dark sky friendly fixtures.



CUSTER COUNTY COURTHOUSE 205 SOUTH 6th STREET P.O. BOX 150 WESTCLIFFE, COLORADO 81252 (719) 783-2552 FAX (719) 783-2885





May 4, 2009

Robert Gilchrist, Vice-President Custer County Dark Skies PO Box 634 Westcliffe, Colorado 81252

Dear Mr. Gilchrist;

Thank you to all Dark Skies Members for their dedication in preserving the dark-sky heritage of the Wet Mountain Valley. We appreciate and were impressed with the first class proposal that you're provided to our Board of County Commissioners (BOCC).

We endorse and support the Dark Skies proposal for the installation of new lights at the Custer County Courthouse as it has been outlined. We value and appreciate the financial contribution of Dark Skies in making this project a reality for our County.

Prior to signing an agreement we want to discuss and come to an agreement regarding the placement of the stand along fixtures on the east side parking lot and ask that the exterior lighting of the flag pole on the front grounds would remain the same.

The BOCC would also ask Dark Skies to consider adding illumination of the courthouse emergency fire escape with an off-on switch next to the door on the inside. The reason for this request is that if people need to exit the building at night in an emergency that the stairwell can be lit as they exit onto the stairway.

If you have any questions, please give the Commissioners office a call at 719-783-2552 or contact a Board member at the following e-mail addresses.

Most sincerely,

Lynn Attebery

lynn@custercountygov.com

Cc: File

Jim Austin Vice Chair

jim@custercountygov.com

Carole J. Custer, Ph.D.,

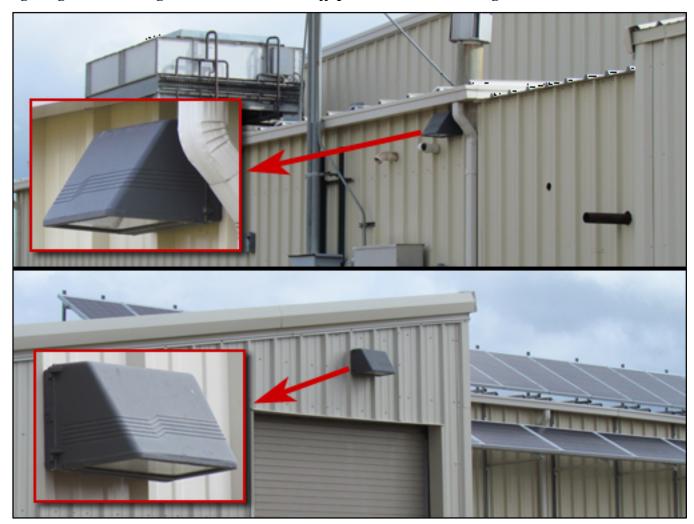
Commissioner

carole@custercountygov.com



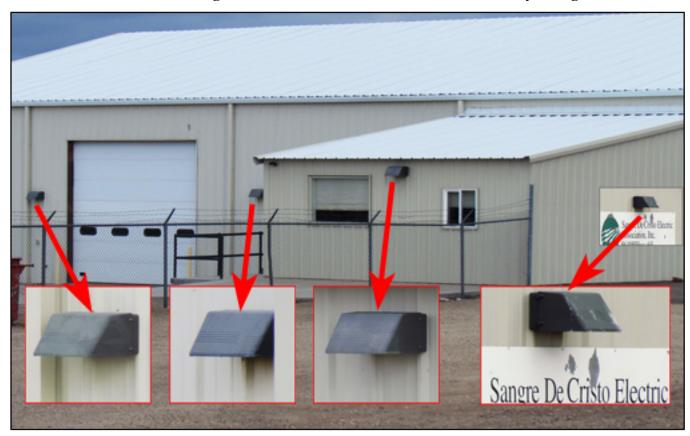
The top image is of the front of the Custer County Courthouse from Sixth Street/Highway 69 where the glaring wall packs used to blind passing drivers. The bottom image is the back of the courthouse where glaring wall packs were replaced (the shielded street lights in the parking lot are not shown).

**In 2011 and 2012**, using donations made through the annual Wet Mountain Valley Community Foundation *Spirit Campaign* and other donations, we worked with the Westcliffe Supermarket to change the outside wall pack lights to cutoff fixtures that will shield the lighting from the neighborhood and *The Bluff* park (see satellite image below).



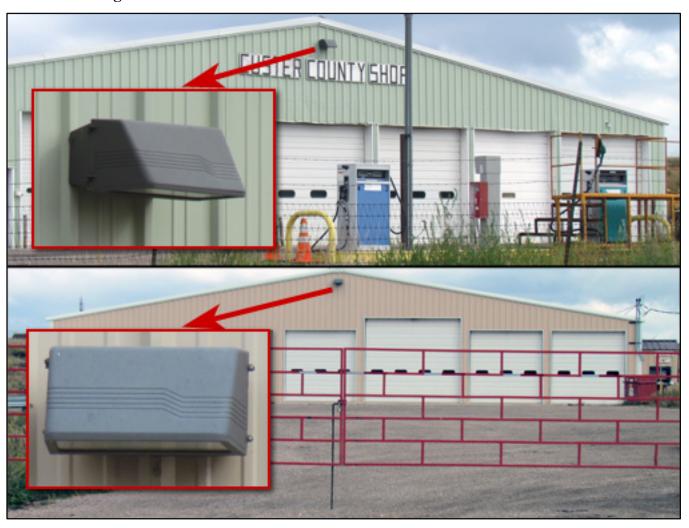


**In 2011 and 2012,** Dark Skies worked with the Sangre de Cristo Electric Coop to change out their wall packs at their shop and service area on Highway 69, just south of Westcliffe. These fixtures caused considerable glare. Test LED bulbs were installed in their yard lights.





**In 2013,** Dark Skies received an agreement from the Custer County Commissioners to change out wall packs and add to the overhead lights with shielded fixtures at the Custer County Shops on the north edge of Westcliffe.



In 2013, Dark Skies replaced glaring wall packs and street lights at the Custer County Shops in Westcliffe and a star party was announced.

# Skies continues to enlighten our

THURSDAY, JUNE 6, 201

Preserving the dark skies while helping

power consumption through the installation of more efficient lighting is what the Dark residents and business owners reduce their Skies of Westcliffe organization is all about.

the local Dark Skies organization's goal is ight also aims the light down where it is needed, instead of up into the sky where it To that end, said president Jim Bradburn, to educate folks on how a shielded lamp on their property keeps the light from intruding onto a neighbor's property. The shielded

founded in the late 1990s by the late Smokey The local Dark Skies organization was

It is a non-profit group that accepts donations to purchase light shields, replace non-shielded lights, purchase educational material for distribution and to assist with expenses due to the construction of dark-sky friendly lighting.

"we make available our time, light fixtures and "With these funds," said Bradburn,

adding new outside lights to the Custer more Fire Department building and Custer County courthouse, as well as adding dark skies friendly fixtures around Round Moun tain Water and Sanitation District's water County Road and Bridge shop, Wet Moun tain Fire Protection District facility, Wet treatment ponds. In addition to Bradburn, others on the board of directors are Steve Janssen, Susan Frostner, Ginny Powers and Rex Stage. There are regarding the bad effects of artificial night man, Bob Gilchrist, Bob Moose, Steve Lind-Bradburn noted that the American Medical Association has published information

Furthermore, the Dark Skies group has assisted Family Dollar in their attempt to pul in better lighting at the request of neighbors said Bradburn.

side to gaze at the stars a better opportunity

It also allows those who like to go out-

lighting. "So, reducing the total light at night

is a good thing," said Bradburn.

also a number of advisory board members.

number of Valley ranchers and residents within the two towns, and the group has So far, Silver Cliff trustees have allowed Dark Skies to install a dark skies-complioffered to assist the town of Silver Cliff, too. He also said Dark Skies has helped

ant LED test street light for evaluation. The Silver Cliff trustees are also working with Black Hills Energy to provide more efficient street lighting. Instead, said Bradburn, "We want you to Over the years, the Dark Skies organiza-

The local Dark Skies organization also gives lectures and provides education to school children and the general public. They include replacing the town-owned

One of those events is slated for June 13 or Additionally, it periodically hosts astron omy-related events at the Bluffs located or the west end of Main Street in Westcliffe 14, depending upon the weather.

### the planets next weeker

Party on June 13. June 14 is the backup date in case the weather turns bad. On those dates Mercury, Venus, Saturn and Neptune will be in good viewing posi-

help whoever comes. The event will take out charge, as well as operators willing to place in the new Bluff's park at the west tions. Telescopes will be available withend of Main Street at 9 p.m.

the light police," said Bradburn. "We are not Super Market and replacing lights at the Bradburn went on to explain what the tion has completed a number of projects in Westcliffe lights along Main Street, replacing exchanging exterior lights at the Westcliffe Sangre de Cristo Electric shop on Highway Dark Skies organization is not. "We are not have as much light as you need for safety, however, we want to offer you a better way parking lot lights at Custer County School, advocating turning off your lights." the Wet Mountain Valley. to do so, said Bradburn. of doing it."

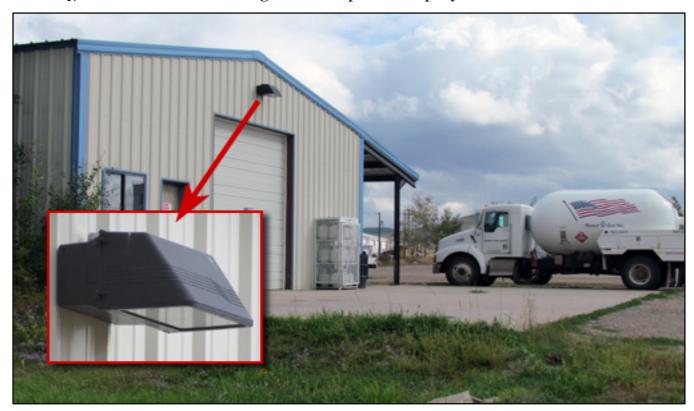
In 2013, Dark Skies shielded the lights at the Westcliffe Fire Station.



In 2013, Dark Skies shield a glaring wall pack on the back of the Shell gas station.



In 2014, Dark Skies shielded the lights at Norup Gas Company north of Westcliffe.



In 2014, Dark Skies shielded the lights at Oak Disposal Services north of Westcliffe.



**Since Inception**— Projects such as those just described are financed through donations solicited from concerned citizens with an interest in preserving the dark-sky heritage, view of the starry night sky, and protection of wildlife of the Wet Mountain Valley. The funds received by Dark Skies are used not only for commercial and governmental projects, but also for individual requests to help in providing dark sky lighting solutions for personal residences and ranches. Dozens of such solutions have been provided since our inception, including offering free shields for yard lights. A typical solution below was a Westcliffe glaring yard light that disturbed many neighbors. Fortunately, the owner was receptive to having this and another rear facing light replaced.



#### **Education Efforts—**

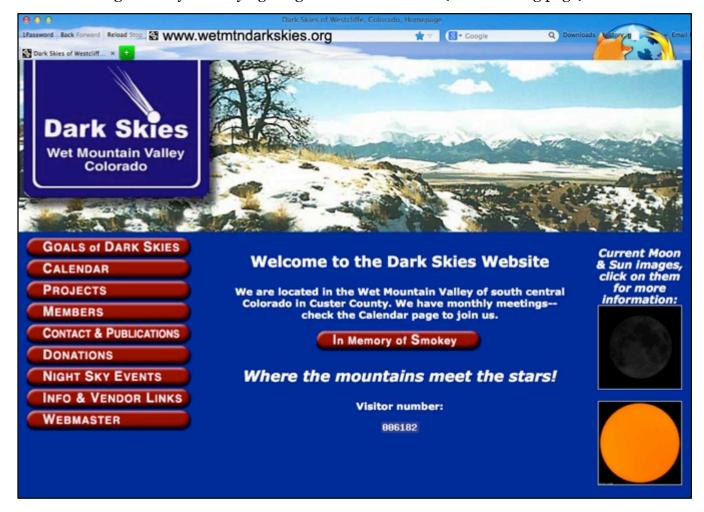
#### Student Art Contest—

**Since 2009,** Dark Skies has supported the school district's art program through a contest for the best art interpretation of the night sky. This contest makes the night sky a focus point to many youth that will stay with them throughout their lives. The winning submissions are used for half-page color advertisements in the local newspaper, the *Wet Mountain Tribune*, to promote dark sky awareness and for funding support to Dark Skies.



#### Dark Skies Website—

**Since 2000**, Dark Skies has used its website < <a href="http://www.wetmtndarkskies.org">http://www.wetmtndarkskies.org</a>, created and maintained by a Dark Skies member, for providing information to the public about its mission, goals, officers, and progress in limiting light pollution. The website averages about 500 visits per year. Plus an extensive listing of sources for more information and for retail vendors selling dark sky friendly lighting fixtures is featured (see following page).







betaLED <www.betaled.com> See recent article here LEDs new paradigm means reliability, safety, durability and feature:

- Cold starting
   Programable for motion detection determined lumination level
   Vibration and impact resistant
   No mencury or lead is used

- Dark Sky compliance

  Longer LED life reduces waste (When properly engineered, LED life is more than five times that
  of metal halide)



Install this wall pack outside of warehouses, office buildings, or schools for bright security lighting. It is suitable for wet locations and because the light emits directly down, it is dark sky compliant. Listed under "Commercial --> Security Lighting" Available from: <www.pegasuslighting.com>



LEDtronics <www.ledtronics.com> LED lamp and LED bulb product offerings are available in a wide range of bulb sizes for multiple lighting applications. Nearly every industry will find a LED bulb or LED-based solution for its unique needs.



Starry Night Lights, <www.starrynightlights.com> 'We offer the widest selection of night sky friendly outdoor lights for your home or business.



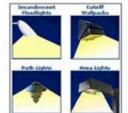
The GlareBuster, <www.theglarebuster.com> Designed to compliment any style of architecture, the GlareBuster comes ready to adapt to any exterior surface or siding."



Ruud Lighting, <www.ruudlighting.com> See recent article here.

We are dedicated to advancing the quality of controlled, energyefficient exterior lighting and to the preservation of our night skies. Through the development of cutoff optical systems and luminaires, Ruud Lighting continues to be a strong proponent for the reduction of glare and light pollution.

International Dark-Sky Association member



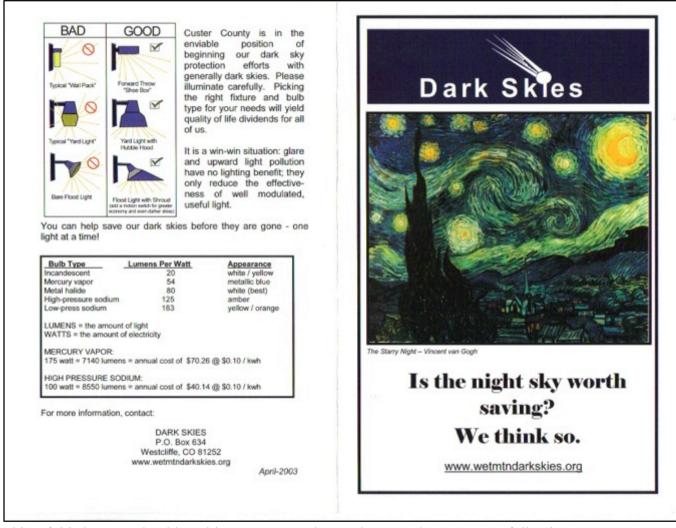
eLights, <www.elights.com/darksky.html> "It's common sense to choose lighting fixtures that cut glare, reduce sky glow and eliminate wasted energy dollars."



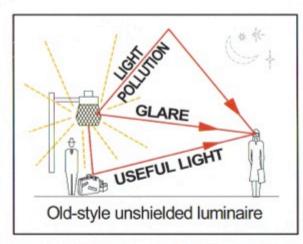
Love IT Lighting - <www.loveitlighting.com> The on-line lighting store for indoor and outdoor lighting, including Dark Sky choices, both residential and commercial applications. Scroll down to "Search By Category" or use the search menu for Dark Sky.

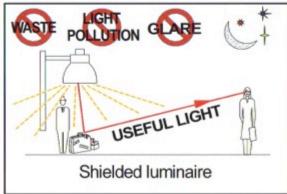
#### Publication for Home Builders-

**For over a decade,** Dark Skies has provided a dark sky publication in the packet of information given prospective home builders by Custer County permitting office. The publication explains the value in maintaining the area's dark skies and a description of the types of fixtures that are dark sky friendly. A link to the Dark Skies website is included to provide more information and contact information for assistance.



This a folded, 4-page booklet with pages 4 & 1 shown above, and pages 2 & 3 following:





Today the Wet Mountain Valley is a lightly populated rural area with spectacular night skies. You can do your part to help preserve this resource by installing well-designed outdoor lighting.

A yard light produces a pool of useful light about 100-feet in diameter. Without a light-focusing hood, such a light also broadcasts glare across great distances. Even when seen from miles away, that pinpoint of useless glare is many times brighter than the brightest star. And to a nearby neighbor it can be a real annoyance when all they want to do is open the drapes and view our incredible mountains by moonlight.

Upward directed beams from unshielded or open-top lights reflect from particles in the atmosphere and cause 'sky glow' which obscures the millions of dimmer stars. Here in the Wet Mountain Valley we already see the sky glow of Pueblo and Canon City.

To control glare and sky glow all outdoor lights should:

- Reflect light down with no escape of light in an upward direction. This will increase the level of useful light, eliminate light pollution, and save our night skies.
- Shade the source of illumination when viewed from outside the zone of useful light. This will prevent glare, make objects illuminated by useful light easier to see, and show consideration for neighbors.

Dark Skies is an emerging concern nationwide. More dark-skyfriendly fixtures are available every day. Visit our web site or call a volunteer to find out where you can purchase good lighting.

Dark Skies can design and furnish custom shades for existing wall-pack lights — notorious producers of glare. Dark Skies always has Hubble Hoods on hand. Hubble Hoods are for yard lights. They feature a parabolic reflector that provides optimum light distribution. We will sell you a hood or give you a hood — whatever it takes to save our skies!

If you decide to lease a security light from a power company, please be sure to specify a hooded or fully shielded yard light.

Publication for Home Builders—Pages 2 and 3.

#### Star Parties and Presentations —

**For over a decade**, Dark Skies has conducted star parties, usually with a related lecture presentation, at *The Bluff* in Westcliffe. These events are often associated with sky events that are mentioned in the national and state-wide media, like lunar and solar eclipses, grouping of bright celestial objects (conjunctions), planetary transits, etc. During the presentation, we mention the value of maintaining the night sky. Also, we have done many presentations at area organizations to describe our purpose and accomplishments.



THURSDAY, OCTOBER 2, 2008

# Dark Skies, Stargazers to give telescope tips

This Friday evening, Oct. 3, the Dark Skies organization and the Sangre Stargazers Club are jointly sponsoring a presentation titled "How to Buy a Telescope" followed by a star party where the public is welcome to view the crescent moon, Jupiter, and many other astronomical objects.

Local amateur astronomer Ed Stewart will demonstrate the various designs with members' telescopes, noting the many

This Friday evening, Oct. 3, the Dark choices and decisions to be made to select the best one for a particular individual.

If the weather permits, these same telescopes can be used by the attendees during the star party. The presentation begins at 7 p.m. at the community room at Cliff Lanes. The star party starts about 8 p.m. at the west end of Main Street. For more information, visit www.wetmtndarkskies.org or email stargazer@skymtn.com.

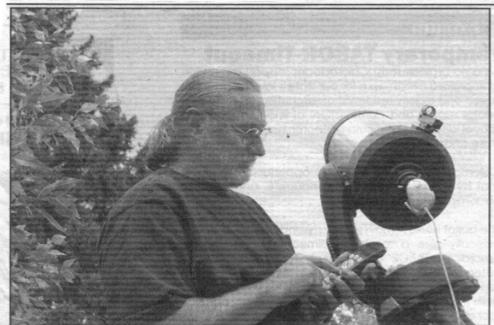
THURSDAY, OCTOBER 16, 2008



#### **Celestial Optics Demystified**

Earlier this month Ed Stewart of the local Dark Skies group gave a presentation on selecting telescopes in the community room at Cliff Lanes. A small but enthusiastic group of stargazers attended the event. The star party afterwards was cancelled due to overcast skies. Dark Skies members plan more public star parties beginning late next spring. The local Dark Skies organization works to preserve the scenic night sky views offered by the high altitude and the clear skies of the Wet Mountain Valley by providing means to prevent the spread of light pollution.

— Courtesy photo



Local star watcher Bob Thomason gets his telescope ready for this week-- Trib photo by Shanna Lewis end's star party.

### Dark Skies organization to host star-gazing party this weekend

personal with the stars this weekend at the inaugural Star Party hosted by the Wet Mountain Dark Skies organization and the Pueblo Astronomy club.

Professional and amateur astronomers will be on hand with their telescopes beginning at dusk on Friday and Saturday nights, Sept. 30 and Oct. 1, to provide a closer look at the heavens and to act as guides for novice sky watchers.

Dark Skies representative Bob Gilchrist said, "there will be plenty of good gear set up so people can have a good look and it should be a good weekend for deep sky viewing."

He also noted that no lights are visible from the location of the party at the Cross

Everyone is invited to get up close and D Bar Trout Ranch and with an altitude of 9,300 feet the atmosphere is clearer then at lower altitudes.

> Attendees are encouraged to bring their own equipment, such as binoculars or telescopes, but it is not required as there will be telescopes on site. Power will be available for computers or other equipment requiring electricity. People are also reminded to dress warmly.

> This free event will take place at the Cross D Bar Trout Ranch campground, located 2.1 miles south of Highway 96 on Rosita Road, County Road 347. Camping and R.V. parking will be available at no charge and the camp store will be open.

> For additional information, call Gilchrist at 783-2944.

#### Maintaining Awareness—

#### Newspaper Advertising—

The Wet Mountain Valley, which includes Westcliffe, is so rural that there is no commercial television or radio stations based here to provide coverage of our efforts. While there is a low-power, public radio station, it has little coverage of local events. The one source of traditional public communication is *The Wet Mountain Tribune*, a weekly newspaper with its editorial offices located in Westcliffe. Dark Skies ran occasional ads to raise public awareness but since 2009 we have purchased a scheduled package of 25 ads from small 4" x 4" black and white copy to half-page color ones spread out over a full year.

#### Samples of 4" x 4" Black and White Advertisements—









# STAR PARTY AUGUST 3 — FREE TO THE PUBLIC

Star Party will feature the crescent moon and the planet Saturn, star clusters, double stars, and the Milky Way.

Date: on Wednesday, August 3 (with a back-up date of Thursday, August 4 if cancelled due weather conditions). Location: Westcliffe event field across the street from Cliff Lanes (west end of Main Street).

Time: beginning at 9 p.m. and end at 10:30 p.m.

Telescopes and binoculars provided by Dark Skies and Sangre Stargazer Club members.



# Star Party will feature the crescent moon, the planet Saturn, star clusters, double stars, and the Milky Way. DATE: on Wednesday, August 3 (with a back-up date of Thursday, August 4 if cancelled due weather conditions). TIME: beginning at 9:00 p.m. and ending at 10:30 p.m. LOCATION: Westcliffe event site across the street from Cliff Lanes (at the west end of Main Street). Telescopes and binoculars will be provided by Dark Skies and Sangre Stargazer Club members. (Have your own telescope? Please bring it early at 8:30 p.m.) Visit the Dark Skies website after 8:30 p.m. on the event date for the cancellation decision: <a href="http://www.wetmtndarkskies.org/>">http://w

# LIGHT POLLUTION WHY SHOULD CUSTER COUNTY CARE?



County Courthouse beforewith glaring wall packs that blinded passing motorists



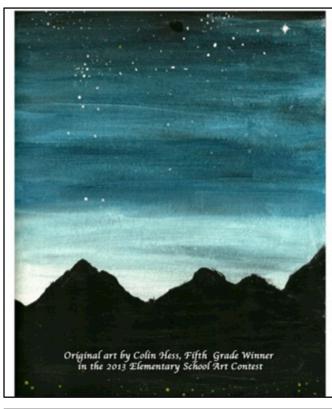
County Courthouse afterwith shielded wall packs that direct lighting to the ground to provide safer entry

- Light pollution is threatening a precious natural resource our starry night sky (National Park Trust)
- Our natural night sky helps make Custer County a uniquely desirable destination for tourists and potential residents
- •Light pollution threatens the health and well-being of both humans and wildlife. (American Medical Association, Resolution 516)
- •Excessive, inefficient, and mis-directed lighting wastes energy. (National Park Service)

#### How can you help?

The Dark Skies organization needs your effort to help us educate the public and to help with projects that replace polluting, inefficient fixtures. Please attend one of our meetings to share your ideas.

Visit our website for more information: <a href="http://www.wetmtndarkskies.org/">http://www.wetmtndarkskies.org/</a>.



Cowboy Poetry by Jane Morton

#### Country Dark

installed at rooftop height. Two bright new post lights mark their drive and burn throughout the night.

They put big lights on their garage and at each entry way. Lights blaze away from dusk to dawn and turn night into day.

Night wrapped itself around us, and moonlight lit our ways, until those glaring lights went in and dimmed the silvery rays.

We lost the country dark we had, and with it went the stars. Lights water down the Milky Way, obscure Venus and Mars.

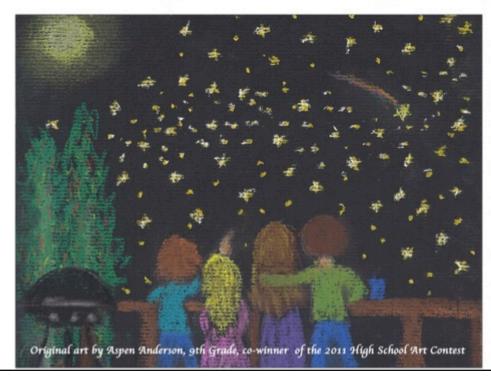
New neighbors put in new barn lights The brightness spreads across the sky, blights land these folks don't own, corrupting and destroying dark, which we had always known.

> Ancients gazed at their night skies and saw infinity, While we can't see beyond the glow in our vicinity.

Lights pointing down instead of up would cut down on the glare, and timers, well as sensors, might diminish our despair.

©2012 Jane Morton. All rights reserved. Used with permission. <cowboypoetry.com/janemorton.htm> Visit the Dark Skies website: <www.wetmtndarkskies.org/>

# Starry, starry



#### What can you do to help maintain our beautiful starry skies?

Donate to Dark Skies through the 2011 Wet Mountain Valley Community Foundation's Spirit Campaign. See the announcement on the adjacent page or visit: <www.wmvcf.org> and select Donations.

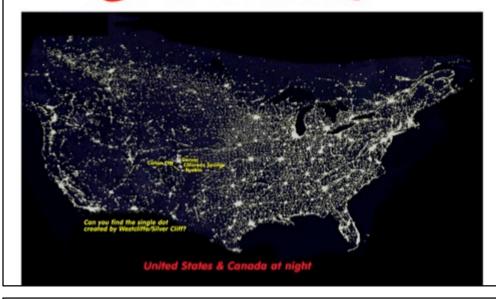
This winning piece of art calls to mind the beautiful night sky viewed from the homes in the Wet Mountain Valley, but lost for much of the rest of the United States.

Take steps to protect it-·use shielded outdoor fixtures •install timers and motion

·use lower-rated bulbs

detectors

# Starry, starry night... GONE While the Wet Mountain Valle enjoys beautiful starry nights, lost in most of our county. An could be lost here, too, if we do



While the Wet Mountain Valley still enjoys beautiful starry nights, it is lost in most of our country. And it could be lost here, too, if we don't take steps to protect it.

What can you do to help? First, look at your own exterior lights. Do they burn dusk to dawn - why? Do they shine across your property line onto your neighbor's property, even miles away? Are they shielded so as to direct the light only where it is needed without glare?

Second, if your neighbor's lights are a problem to you, are you willing to discuss your concerns with them? And suggest they use shielded fixtures, timers, motion detectors, and lower-rated bulbs.

Help from Dark Skies-We can provide technical and monetary assistance to willing individuals to preserve our starry nights. Visit: <www.wetmtndarkskies.org/>

# Starry, starry



This piece of art, drawn by fifth grade student Hunter Speer, calls to mind the beautiful night sky we enjoy in the Wet Mountain Valley - but is lost in much of our country. And it could be lost here, too, if we don't take steps to protect it.

What can you do to help? We invite you to join Dark Skies at our next meeting to share your ideas and to donate your time and talents to make a difference in the future evening skies of the Wet Mountain Valley and Custer County.

- And take these steps: ·use shielded outdoor fixtures ·install timers and motion-
- ·use lower-rated bulbs

detectors

Visit the Dark Skies website: <www.wetmtndarkskies.org/> for the date and time of our meetings.



#### International Dark-Sky Community Certification Towns of Westcliffe and Silver Cliff Nomination Application

#### Part V — Community Commitment

Since the inception of Dark Skies, Inc. of the Wet Mountain Valley in 1999 and the completion of its first major project, the agreement with the West Custer County Hospital District to use dark sky friendly lighting fixtures, Dark Skies has steadily accomplished a large number of major and minor projects as demonstrated in *Part IV Successful Projects in Light Pollution Control, Education, and Awareness*. At the same time, we worked to change the mindset and to educate about dark skies concepts to those responsible at each project location along with the general public with continuous newspaper advertising, an annual art contest at the school district, public star parties, descriptive literature included with building permits, our website, and our annual fund drive conducted through the Wet Mountain Valley Community Foundation's *Spirit Campaign*.

The *Spirit Campaign* provides the best objective data of long-standing support of Dark Skies: since 2005 when the WMVCF first offered the fund drive with partially matching funds, we have consistently been in the top 10 of funds received out of over 100 non-profits that have participated during this period. Currently, we are one of only 66 non-profits that remain on the list. Over the past 5 years (2009 - 2013) without there being a large goal set for a specific project, we had an annual average of 71 contributors and contributions of \$5,716. Over 10% of the campaign's contributors give to Dark Skies. Most contributions come from within Colorado, but we also have receive contributions from seasonal residents from whom we have often heard that they plan on retiring here in the future and want the nightscape preserved for when they can enjoy it full-time. And from visitors from a number of states that found their visit here inspired them to want to keep it a special place to which to return.

Following information about the Wet Mountain Valley Community Foundation and their *Spirit Campaign* comes from the Foundation's website at: http://wmvcf.org/

#### About the Wet Mountain Valley Community Foundation

The Wet Mountain Valley Community Foundation was founded in 1999, and since that time has distributed approximately \$1.5 million to just over 100 nonprofit organizations in Custer County. Grants and gifts have been given to the arts, education, recreation, historical preservation, emergency services health care and related fields of service. The annual Wet Mountain Valley Community Foundation Spirit Campaign is a program of matching gifts awarded by the Community Foundation based on individual donations to nonprofit organizations in Custer County. The Spirit Campaign has generated over \$1 million in donations for the local nonprofit community since the campaign's inception in 2004. It allows residents to focus their donations on nonprofits of their choosing while knowing a matching gift will be awarded by the Community Foundation. The Spirit Campaign matched contributions by over 700 individual donors to over 60 Custer County nonprofit organizations totally more than \$240,000 in 2011 in charitable contributions.

#### How Do I Contribute to the WMV Spirit Campaign?

The Wet Mountain Valley Community Foundation announces its annual Community Spirit Matching campaign to benefit local nonprofit organizations each November.

The Foundation will contribute matching funds, augmented by donations from other foundations and individuals. Matching donations are used to match private contributions made to valley nonprofits when received by December 31 of each year.

Donors wishing to take advantage of matching funds for their favorite local organizations must use the donor form found in select November issues of the Wet Mountain Valley Tribune, or use the downloadable form below. Please DO NOT use the previous year's form. Make checks out to the Wet Mountain Valley Community Foundation (or WMVCF), and please note the nonprofit organization and the amount you wish to go to that organization on the donor form.

The maximum amount that will be matched is \$1,000 per family and/or business. You are welcome to spread your donation to more than one nonprofit, or just one -- it's your call.

Matching funds will be pro-rated based on the dollar total of contributions made through the campaign.

Some examples of changing the mindset and thus decisions in the future: In 2014, the Westcliffe town trustees decided to install a test LED fixture with the goal of reducing energy consumption by converting all the town-owned street lights. This decision came without any prompting from Dark Skies.



Another example changing mindset are unsolicited articles and *Letters to the Editor* in the local newspaper, *The Wet Mountain Tribune* (the Trib):

# For um Silver Cliff, and at private homes a throughout the county. The Dark Silver Cliff.

When you look into the evening sky and feel as if you can touch the planets, the stars and the constellations, you can thank your lucky stars for our local Dark Skies organization.

This is a fitting time to recognize the efforts of the organization: March 29 through April 4 is the official National Dark Sky Week.

Dark Skies of Custer County has been in existence for just about a decade, and through its active leadership has a number of successful accomplishments under its Orion-belt: sky-friendly lights have been installed at Custer County School, at the Round Mountain treatment plant, along Main Street in Westcliffe, in portions of

Silver Cliff, and at private homes and ranches throughout the county. The Dark Skies leadership has been working with the county to install new lighting around the county courthouse, and a formal presentation regarding that project should be ready to present to the county commissioners soon.

The efforts have not always been easy. There's certainly an element of, "By God, nobody's going to tell me what kind of outdoor lights I need," but all it takes is a visit to a nearby city to see how the glare of streetlights, porchlights, business signs and other ambient sources simply eliminate any chance to see the evening stars. Here in the Wet Mountain Valley, that's certainly not the case: our wintertime view of the Milky Way, for instance, is a jaw-dropping experience

for folks not accustomed to dark skies. There aren't many places left in the U.S. that have that lucky distinction.

THURSDAY, APRIL 3, 2008

This week, as part of the national dark sky celebration, Dark Skies president Steve Linderer presented an award to Cindy Howard, owner of the Westcliffe Inn, whose business signage along Highway 69 is night-sky friendly.

Besides encouraging landowners and public entities to become dark sky friendly, the local organization holds occasional sky viewing events and it maintains a website at www.wetmtndark-skies.org.

Every time we gaze skyward, we light up with gratitude for the efforts of this low-key but effective organization.

### Het Mountain Tribune

APRIL 10, 2008

## Letters

#### Sky-Friendly Lighting Has Economic Benefits As Well

Jim--

As an officer of the Dark Skies group I certainly appreciate your support as voiced in your editorial recently but some will get the idea that the only benefit of our efforts is to those interested in looking at the stars at night. There is a much more important reason that impacts just about everyone: MONEY! Poorly designed lighting wastes billions of dollars a year just in our nation and far more globally in the form of electrical costs.

But we have made progress here in the Valley. For example, the new lighting fixtures at the water treatment ponds north of town that you mentioned will pay for themselves in 3-4 years and then will reduce the lighting cost by half. Plus provide better lighting of the ponds without intruding into the surrounding neighborhood as the old fixtures did. And new technology LED fixtures are now available that operate at 20-25% of the energy cost of the typical mercury & sodium vapor street lights and the bulbs last far longer. Additionally, these LED units are dark sky friendly in that they are shielded to direct all their output of light to the ground or where needed. Unfortunately, the replacement cost has to be paid first before the monetary benefits can be realized. To that end, our Dark Skies group conducts an annual fund drive in conjunction with the Wet Mountain Valley Community Foundation to assist individuals, businesses, and government organizations in making the transition to energy efficient (Green) lighting to the benefit of everyone.

Another monetary asset of dark skies to our area is the draw of individuals to visit or move here, as my wife and I did, to enjoy the beautiful night skies along with the mountains in the daytime. That means money flowing into local businesses as a result. The Westcliffe, Inn, that just received our dark sky friendly lighting award, is including in their advertising the attraction of our dark skies and a local astronomy club. With the rarity of dark skies in our country, we need to protect this economic asset for the future.

Those who would like to explore dark sky friendly lighting can find an extensive list of vendors on our website at; www.wetmtndarkskies.org/pages/vendor\_links.htm.

> Ed Stewart Rural Westcliffe

#### Wet Mountain Tribune Column, June, 2012 Supporting Dark Skies' Efforts

### Tales and Tidbits by Willdra Walker



#### Let there be Light—Just Not at Night

Last week a relative and a friend visited us for a couple of days; a brief get-away from the rush, bustle and noise of Pueblo and Denver. The Wet Mountain Valley is a vacation Mecca. Unlimited areas of interest and numerous exciting activities and events abound, but our guests had no trouble in choosing. They took the simple route to entertainment—a brief tour of the ranch; a bit of hiking, exploring and fishing; and when night fell, an unobstructed view of what I think is one of the Valley's greatest attractions—a velvety-black sky, studded with diamond-like stars, satellites that glide across the heavens, and an occasional "falling star." But they were most intrigued by what many of us who live here take for granted: a glowing band spanning the sky—the Milky Way.

"We can't even see it at home," was one comment.

"Stars are visible (though not as bright and not as many), but we never see the Milky Way." Understandable, as the beauty of a night sky is largely obscured where artificial lights banish darkness from the night in places most people live—in cities.

That's not a problem here. Not far from our house is a little clearing completely surrounded by trees where, on logs and tree stumps, we sat, with our guests, until midnight, trading family stories and enjoying Nature's subtle light show. Artificial light was completely absent. Total darkness reigned—except for stars that shone with an amazing brilliance—peaceful, beautiful, wonderful!

I've always had a problem with the concept that "dark" is bad; "light" is good. From a religious standpoint "coming out of darkness into the light" suggests that dark is synonymous with sin, while light signifies goodness. The "Dark Ages" denotes ignorance as opposed to the "Renaissance," or the emergence of light and knowledge. I've been taught to accept this mode of thinking; nothing I can do about it. However, there are things I can do, on a more

practical and less philosophical basis, to advance the idea that "dark" is desirable.

I can support the local "Dark Skies" organization that promotes elimination of light pollution. Through its educational efforts and a variety of successful projects, a number of bright outdoor lights throughout the area have been changed or shielded so that light is directed toward the ground where it is needed, instead of skyward, where it is not; and the night sky remains breathtakingly dark.

A number of rural security lights twinkle throughout the Valley ALL night long, but I can turn my yard light on (and I've always had one) only when activities necessitate, but then TURN IT OFF as soon as it's not needed. As for security; sometimes "the dark" provides more security than security lights.

It happened when my children were younger and still at home. Our family returned late one night from a distant all-day gymkhana/horse show. We turned on the yard light so we could see to unload, put away and feed the horses, unhook the trailer, put things away and carry into the house what needed to be carried in; but then, tired after the day's strenuous activities, we forgot to go back out and turn off the light.

All night the trailer was fully illuminated, which made it convenient and easy for thieves to see clearly, and quietly, quickly and efficiently break the lock to the saddle compartment and carry off the two saddles, breast collars, and head-stalls it contained. Fortunately, the barn's tack room door was in the shadows where the light didn't reach. The robbers could have made a bigger haul, had they noticed it.

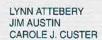
I find it interesting that the only time we were ever robbed was the one time our "security" light shone all night; when thieves managed to "secure," significant loot. Still, much of our tack, including more saddles, was locked safely in the tack room, saved (not by the proverbial bell) but by the dark!

#### The highlighted text reads:

I can support the local "Dark Skies" organization that promotes elimination of light pollution. Through its educational efforts and a variety of successful projects, a number of bright outdoor lights throughout the area have been changed or shielded so that light is directed toward the ground where it is needed, instead of skyward, where it is not; and the night sky remains breathtakingly dark.

A number of rural security lights twinkle throughout the Valley ALL night long, but I can turn my yard light on (and I've always had one) only when activities necessitate, but then TURN IT OFF as soon as it's not needed. As for security, sometimes "the dark" provides more security than security lights.

And in 2009 in this letter from the Custer County Commissioners where Dark Skies is commended for its efforts and inviting additional projects.



CUSTER COUNTY COURTHOUSE 205 SOUTH 6th STREET P.O. BOX 150 WESTCLIFFE, COLORADO 81252 (719) 783-2552 FAX (719) 783-2885





May 4, 2009

Robert Gilchrist, Vice-President Custer County Dark Skies PO Box 634 Westcliffe, Colorado 81252

Dear Mr. Gilchrist;

Thank you to all Dark Skies Members for their dedication in preserving the dark-sky heritage of the Wet Mountain Valley. We appreciate and were impressed with the first class proposal that you're provided to our Board of County Commissioners (BOCC).

We endorse and support the Dark Skies proposal for the installation of new lights at the Custer County Courthouse as it has been outlined. We value and appreciate the financial contribution of Dark Skies in making this project a reality for our County.

Prior to signing an agreement we want to discuss and come to an agreement regarding the placement of the stand along fixtures on the east side parking lot and ask that the exterior lighting of the flag pole on the front grounds would remain the same.

The BOCC would also ask Dark Skies to consider adding illumination of the courthouse emergency fire escape with an off-on switch next to the door on the inside. The reason for this request is that if people need to exit the building at night in an emergency that the stairwell can be lit as they exit onto the stairway.

If you have any questions, please give the Commissioners office a call at 719-783-2552 or contact a Board member at the following e-mail addresses.

Most sincerely,

Lynn Attebery

Chair

lynn@custercountygov.com

Jim Austin Vice Chair

jim@custercountygov.com

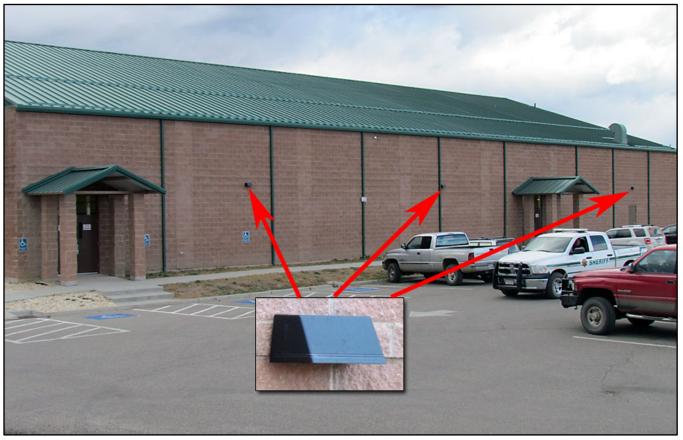
Carole J. Custer, Ph.D.,

Commissioner

carole@custercountygov.com

And, most recently in 2013, the Custer County School District changed out the light fixtures in their east parking area to energy efficient fixtures using a 60% rebate from Black Hills Energy. Before installation, the superintendent verified that they were dark sky friendly from the supplier without consulting with Dark Skies.





Westcliffe & Silver Cliff, CO



#### International Dark-Sky Community Certification Towns of Westcliffe and Silver Cliff Nomination Application

#### Part VI — Letters of Support

Government, Business and Organization Letters of Support-



United States Department of the Interior

### GREAT SAND DUNES NATIONAL PARK AND PRESERVE

11500 Highway 150 Mosca, Colorado 81146



Oct. 8, 2014

Mr. Ed Stewart International Dark-Sky Association c/o Dark Skies, Inc. PO Box 634 Westcliffe, CO 81252

Dear Ed,

The National Park Service at Great Sand Dunes National park and Preserve is pleased to provide a letter of support the communities of Westcliffe and Silver Cliff in their application to become a dark-sky community.

The National Park Service at Great Sand Dunes protects over 85% of the lands it administers as either designated wilderness or proposed wilderness. A key component of wilderness is the dark night skies. The dark night skies as a wilderness and cultural value has also been identified as an interpretive theme for the park visitor. Great Sand Dunes protects this opportunity for the visitor many of which come from areas that do not have a chance to experience the dark night sky.

Great Sand Dunes has also begun a monitoring program to monitor the night sky using the Bortle system. This technique allows for measurements to be repeated to obtain an understanding of the trends of the darkness.

Since we are neighbors across the Sangre De Cristo Range, we appreciate the efforts of your community to help protect and appreciate the dark night skies.

If you have questions, please contact Fred Bunch at (719) 378-6361.

Sincerely,

Lisa Carrico, Superintendent



International Dark Sky Organization c/o Dark Skies, Inc.

31 October 2014

Sir or madam:

It is with a sense of excitement that the local Dark Skies organization in Westcliffe and Silver Cliff, Colorado, is being considered as a formally recognized Dark Sky Community by your international organization.

Since its inception here approximately 15 years ago, the local Dark Skies group has be pro-active in promoting the advantages of preserving and retaining the clear and amazing nighttime viewscapes here in our high, relatively isolated mountain valley in the southern Colorado Rockies. Their successes with businesses, private landowners and local governmental entities have been numerous, and the organization continues that quest through a positive public relations campaign resulting in very widespread community support.

The accomplishments of Dark Skies help contribute to the economic vitality of Custer County, Colorado by attracting tourists, visitors and new residents who marvel at our incredible views of the night skies.

On a personal level, as a fifth generation native of Colorado, I have seen rural, mountainous areas similar to ours lose their appeal due to unchecked growth and development which result in the loss of the public perception of what "true" Colorado really is. Here in the Wet Mountain Valley, fairly simplistic zoning regulations and land preservation efforts have helped preserve one of Colorado's last bastions of a rural ranching high-mountain community. And Dark Skies is an integral part of that formula.

Over the years, The 131-year-old Wet Mountain Tribune has editorially supported the efforts of Dark Skies, and we will continue to do so in an effort to inform the public of the importance of this cause.

We are proud to offer our support of Dark Skies and its efforts to be formally recognized by your organization.

If you have any further questions or concerns, please do not hesitate to contact me.

Sincerely,

Jim Little, Publisher

P.O. Box 300 · 404 Main Street
Westcliffe, CO 81252
Tel: (719) 783-2361/Fax: (719) 783-3725
editor@wetmountaintribune.com

www.wetmountaintribune.com



International Dark-Sky Association c/o Dark Skies, Inc.

#### To Whom It May Concern:

I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

My home, a few miles from the towns, is a more than seven square mile mountain ranch protected by a land trust conservation easement dedicated to maintaining our spectacular views while protecting natural features from development and destruction for future generations. We do not have a single outdoor night light visible on our ranch. The night sky at nine thousand feet is overwhelmingly breathtaking, a primary aspect of our western cultural heritage.

I am a field archaeologist specializing in ancient Andean cultures and the study of astronomy in relationship to development of civilizations both as a spiritually important element of the human experience and an understanding of the universe around us. The Inca designed their great cities such as the world heritage site, Machu Picchu in geocosmic alignment with the sun, moon, stars and important terrain features. There would be no Machu Picchu with the current profusion of night time light in our society.

Currently, I am researching celestial observation as an important element of life for the Ute and other indigenous groups that hunted and camped in our home region. Sadly, this traditional, life-enriching experience, quiet contemplation beneath a star-filled sky so important in historical human experience is now lost in most urban locations. We are doing our best to not let this happen at our unique mountain community.

Sincerely,

Gary Ziegler

Archaeologist and explorer

NASA Distinguished Lecturer 2013

Bear Basin Ranch,

473 CR 271, Westcliffe, CO. 81252



Post Office Box 124, Westcliffe, CO 81252 719-783-3018 info@sanisabel.org www.sanisabel.org

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252

To Whom It May Concern:

I am writing in support of the nomination of the Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado. Our local group, Dark Skies, has worked tirelessly to reduce the light pollution of our wonderful "nightscape" of star-filled night skies. The protection of this valuable resource is something for which residents can be proud.

San Isabel Land Protection Trust is an accredited local land trust working to protect farms and ranches, wildlife habitat and scenic views, and facilitating projects for public outdoor recreation, in four counties in southern Colorado. The land trust has incorporated language requiring the shielding of outdoor lighting so it projects only downward into all of our conservation easements, covering nearly 40,000 acres in the region and over 20,000 acres in the greater Wet Mountain Valley surrounding Westcliffe. This represents a broad and permanent community effort to protect the night sky, for the health and benefit of people and wildlife.

San Isabel Land Protection Trust also owns a popular public park, "The Bluff", at the end of Main Street in Westcliffe. In collaboration with the local Dark Skies group and the Town of Westcliffe, we are proposing to install a small public telescope observatory at The Bluff, available to the public for viewing the night sky. This observatory is an important complement to the Certification of the Towns of Westcliffe and Silver Cliff as a Dark-Sky Community, as it provides a venue for public appreciation of the night sky for both residents and visitors.

I am happy to support Dark Skies' efforts to bring certification to the Towns of Westcliffe and Silver Cliff. It will reduce the future impacts of light pollution, promote a new type of ecotourism, and enhance a community that already values its nightscape. This will effort will provide a valuable example to other communities to follow.

Sincerely,

Ben Lenth Executive Director



The American Legion Westcliffe Post 170 P.O. Box 424 Westcliffe, CO 81252

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

Members of Westcliffe Post 170, The American Legion, Inc. are in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, which are important for long-term health.

We, the veterans of Westcliffe Post 170, are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Our membership voted unanimously to support the initiative to certify our towns as International Dark-Sky Community.

Sincerely,

Post 170 Adjutant



### Cliff Lanes, LLC

25 Main Street Westcliffe, CO 81252 719-783-2031

October 22, 2014

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern,

Our personal and business association with Dark Skies, Inc. over the past several years has been outstanding. Their help with lighting issues and the creation of a new town park has been exceptional.

We clearly want to support the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey well supported by the community at large.

acidraj M Steiner

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff.

Sincerely,

Richard & Audrey Stermer

10/20/14 International Dark-Sky Association C/O Dark Skies, Inc. PO Box 634 Westcliffe, CO 81252



#### To Whom It May Concern:

The Arkansas Valley Audubon Society (AVAS) is a local chapter of the National Audubon Society with 645 active members. AVAS covers a geographic area of over 20,000 square miles from the Sangre de Cristo Mountains to the headwaters of the Arkansas River near Leadville, the San Luis Valley and east to the Kansas border and south to New Mexico. This area contains some of the most spectacular scenery and wildlife in Colorado. The towns of Westcliffe and Silver Cliff are within the AVAS area.

On behalf of AVAS, I am writing to support the nomination of the adjoining towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado, AVAS recognizes "dark skies" as both a cultural and natural resource and believes that this prestigious designation will help individuals, businesses and governments recognize the importance of preserving this unique area for our citizens and future generations.

Light pollution- the "never-occurring night"- degrades the environment of this region. Of all the forms of pollution, light pollution can be one of the easiest to avoid or reverse if residents are aware of what it is and how it can be mitigated.

Certification of the towns of Westcliffe and Silver Cliff will help to reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times and various aspects of the night sky to navigate. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that is important for long-term health.

AVAS sponsors meetings, field trips and bird counts in this area and enthusiastically supports all efforts to preserve and protect it. AVAS is proud to support Dark Skies' certification for the towns of Westcliffe and Silver Cliff.

Sincerely.

Dr. Peg Rooney

Po Box 589 (2) 209 Main Street (2) Westcliffe, CO 81252

Phone 719,783,9138 (2) Fax 719,783,2155 (2) www.westcusterlibrary.org (2) info@westcusterlibrary.org

International Dark-Sky Association

c/o Dark Skies, Inc.

Director

Amy Moulton

P.O. Box 634

Westcliffe, CO 81252

To Whom It May Concern:

Board of Trustees

Dave Heppe President

Debbie Rabinowitz

Vice President

Amy Bauer Treasurer

Bar Scott Secretary

Jim Gearhart Trustee

Renee Tobin Trustee

J.D. Henrich Trustee Our local Dark Skies has made such a difference in preserving the same brilliant star-filled sky the area's founders once enjoyed. It is my pleasure to write in support of the nomination of the adjoining towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado. The designation would also be the highest in altitude of any location to date, bringing appreciative viewers even closer to the magnificent nightscape.

I have lived in this community for 13 years, and I can still remember seeing night sky without light pollution for the first time. It was both overwhelming and absolutely breathtaking. These days, my kids remind me when we pull in the driveway and walk towards the house, "Wow! Look at the stars!" We are so fortunate to live here, but that experience is something to be shared. An International Dark-Sky Community designation would do just that, while encouraging other Colorado communities to follow suit. Also, with certification, eco-tourism and astro-tourism could have a profound impact on our economy.

The library appreciates the Dark Skies connection and their complete openness to share their knowledge of the stars with the community. They have offered to partner with the library to educate kids and adults about astronomy, which we gladly accepted. Where better for people to experience that than here, which is precisely the point.

Thank you for your consideration and for the important work you do.

Sincerely,

Amy Moulton Director

The Friends of Beckwith Ranch



PO Box 178, Westcliffe, Colorado 81252-0178

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634
Westcliffe, CO 81252

To Whom It May Concern:

I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow this path.

Sincerely, Leve Smith, acting Prioident

# Wet Mountain Valley Community Foundation

October 23, 2015

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

The Board of Directors of the Wet Mountain Valley Community Foundation is writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans that are important for long-term health.

The Community Foundation is a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely.

Jim Little, President, Wet Mountain Valley Community Foundation



PO Box 81 Westcliffe, CO 719-783-9163

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely.

Donna Hood, President

Custer County Chamber of Commerce

## Custer County Historical and Genealogical Society 59000 Colorado 69, Westcliffe, CO 81252

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely. Wordtry L U Won, office Manager

#### VALLEY ACE HOME CENTER

ONE ENTERPRISE DRIVE WESTCLIFFE, COLORADO 81252 719-783-9054

PAUL C. WENKE, PRESIDENT

October 27, 2014

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff, Colorado as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local Dark Skies organization has been diligently working for the past 15 years to reduce the light pollution in our communities and surrounding area.

Viewing this nightscape from our elevation of 8,000 feet above is a magnificent experience. It deserves protection so that future residents and visitors will continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. Both Westcliffe and Silver Cliff have changed their zoning ordinances to be Dark Skies compliant.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans that are important for long-term health.

I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow.

Sincerely,

Paul C. Wenke



International Dark-Sky Association c/o Dark Skies, Inc.

October 27, 2014

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Silver Cliff and Westcliffe as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

Certification of the Towns of Silver Cliff and Westcliffe will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

We are proud supporters of Dark Skies' certification effort for the Towns of Silver Cliff and Westcliffe. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely,

Christy Veltrie, President

'Cliffs Commercial District, P.O. Box 1011, Westcliffe, CO. 81252, 719-783-2282



# **Custer County Community Development Corporation**

October 31, 2014

International Dark-Sky Association c/o Dark Skies, Inc.

#### To Whom It May Concern:

I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled skies of both towns and the adjoining rural areas has been a 15-year journey of which both Dark Skies and the residents can be proud.

With certification, this "eco-tourism" can become an important part of the communities economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

I am a proud supporter of Dark Skies' certification effort for the Towns of Westeliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow this path.

Sincerely,

Charles Bogle
Chairman, Custer County Community Development Corporation
P.O.Box 593, Westcliffe, CO 81252



International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252

To Whom It May Concern:

I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow this path.

Sincerely,

Welum Lester, E.D.



### HIGH COUNTRY RECYCLING PO BOX 279 WESTCLIFFE, CO 81252

October 12, 2014

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely,

Joan Liebman, Chairperson High Country Recycling HighCountryRecycling@gmail.com



# Custer County School District, C-1

Post Office Box 730, Westcliffe, Colorado 81252

Chris Selle - Superintendent Barbara A. Jones - Secondary Principal Holly Anderson - Elementary Principal

Main Office: 719-783-2291 / Office Fax: 719-783-4944 / Administration: 719-783-2357 / Administration Fax: 719-783-2334

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252

#### To Whom It May Concern:

The Custer County School District is writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. The local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely,

Brenda Gaide

Bunda Saide

President

Custer County School District Board of Education

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252



To Whom It May Concern:

We at the Wet Mountain Valley Rotary club are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely.

Patrick Lynch, President

### STONEMAN LAW FIRM Tracy Pride Stoneman

301 Snowcrest Westcliffe, CO 81252 Phone: 719-783-0303 Home Office

3812 Mockingbird Lane Dallas, TX 75205 Phone: 214-853-9300

October 20, 2014 International Dark-Sky Association c/o Dark Skies, Inc.

#### To Whom It May Concern:

I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. My husband and I live at the highest elevation in Westcliffe – 9,000 feet in the Sangre de Cristo mountains where we have lived since 1997. We have been familiar with our local Dark Skies group for many years and wholeheartedly support Dark Skies in its fervent protection of our star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow this path.

Sincerely,

Tracy Price Stoneman

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252 Westcliffe Super Market 50 W. Main St. Westcliffe, CO 81252 719-783-0550

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Lynn La Iree

Sincerely,



International Dark-Sky Association

c/o Dark Skies, Inc.

P.O. Box 634

Westcliffe, CO 81252

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I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow this path.

Sincerely,

# The Courtyard Country Inn

410 Main Street Westcliffe, CO 81252

719 783-9616

www.CourtyardCountryInn.com

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

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We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely,



# Sustainable Ways

PO Box 672 - Westcliffe, CO 81252 Champions of Sustainable Living in the Wet Mountain Valley

# www.sustainableways.org

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely,

Cathy Snow on behalf of Sustainable Ways

### John G. Johnston, Broker/Owner JOHN G. JOHNSTON & ASSOCIATES, LLC

408 Main Street PO Box 1042 Westcliffe, CO 81252

(719) 783.4644 Office (888) 963.8749 Fax john@JohnGJohnston.com

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely,

John G. Johnston



7475 East 84th Avenue • Commerce City, CO 80022 Phone 303-744-9881 • Fax 303-744-0888 www.alpinewaste.com

International Dark-Sky Association c/o Dark Skies, Inc.

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We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely,

John Griffith Part-time Westcliffe resident



8333 County Road 271, Westcliffe, Colorado 81252 719-783-9729 \* Fax 719-783-0269 \* eaglesummitranch@aol.com

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252

#### To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

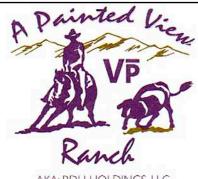
Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances. Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans that are important for long-term health.

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely.

Gerry and Beverly Shoemaker

Directors Eagles Summit Ranch Colorado



3115 County Rd. 160 • Westcliffe, CO 81252 (719) 783-9100 • CO Fax: (719) 783-9519 • PA Fax: (610) 347-6679 • Cell: (610) 761-2770 rdh@apaintedview.com • www.apaintedview.com

AKA: RDH HOLDINGS, LLC

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

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I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow this path.

Sincefelv.

Donna Hood Owner



# St. Luke's Episcopal Church

P.O. Box 208 Westclife, Colorado 81252 (719) 783-2477

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely, honey aula for the Bishops Committee honey of St Lubses Episcopal Church

Worship Service 10:30 a.m. Sunday 3rd and Rosita, Westcliffe



International Dark-Sky Association c/o Dark Skies, Inc.

To whom it may concern,

The Southern Colorado Space Museum & Learning Center is obviously in full support of the efforts to nominate the towns of Westcliffe and Silver Cliff to become Colorado's first dark sky certified towns. We feel that it is vitally important that we keep our night skies dark in order that future generations can enjoy the awe inspiring beauty of our skies just like the town's founders did generations ago.

We urge others to join in this effort to preserve one of our valuable resources. We are proud of the work that our Dark Skies group has done over the years and look forward to this certification becoming a reality.

Steve Janssen

Curator

Southern Co. Space Museum & Learning Center P.O. Box 204 Westcliffe, Co. 81252

# K2 CONCEPTS INC

PO Box 606 Westcliffe, Colorado 81252

Office: 719-783-2720 k2conceptsinc@gmail.com

Cell: 772-539-2285 k2conceptsbuilders.com

October 30, 2014

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252

To Whom It May Concern:

As a local Construction Company, we are writing in support of the nomination of the adjoining Towns of Westeliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path. We also endorse the proposed observatory on The Bluff for its educational component for school children, townspeople and visitors.

Sincerely,

Lisa U. Kelley, President

Dennis D. Kelley, V.P.



### ALL ABOARD WESTCLIFFE, INC.

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252

To Whom It May Concern:

I am writing as Treasurer representing All Aboard Westcliffe, Inc. in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow this path.

Sincerely,

Nancy J. Taylor

Treasurer, All Aboard Westcliffe, Inc.

P.O. Box 1415 • Westcliffe, Colorado • 81252

### Town and County Citizen Letters of Support-

10/10/14

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634
Westcliffe, CO 81252

To Whom It May Concern:

I was raised in the Westcliffe area some forty years ago and still retain a significant amount of land to which I will be retiring to in the next few years. The dark skies afforded by Westcliffe and Silver Cliff is nothing short of marvelous. The local Dark Skies folks have been working diligently with the two towns bring awareness to the residents and convincing the towns to act on behalf of preserving our dark skies there.

I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Certification of the Towns of Westcliffe and Silver Cliff will reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, which are important for long-term health.

I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow this path.

Sincerely,

Charles Jagow, <a href="mailto:chuck@jagowds.com">chuck@jagowds.com</a> 4454 County Road #182 Westcliffe CO 81252

#### Nita Lynch

6045 County Road 140 Westcliffe, CO 81252



International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

I am writing as a proud supporter of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

I remember first coming to Westcliffe to camp with my family (my children were ages 12 and 7) some 35 years ago and seeing the stars like I had never seen them before! I want these views to always be protected so that my children and grandchildren and great-grandchildren can enjoy it. With all of the development in Colorado, there a few places that one can view some of the vastness of the universe.

With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors.

Please preserve this bit of paradise by certifying Westcliffe and Silver Cliff, Colorado as a "Dark-Sky Community"

Best regards.

Nita Lynch

October 28, 2014

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern,

I am a resident of the Wet Mountain Valley, living a view miles north of the towns of Westcliffe and Silver Cliff. We also own property that friends and family choose to camp on in the summer months. The most frequent comment we hear from campers is about the night sky. "I've never seen so many stars! It's incredible!" Many have seen their first (maybe only) falling "star" from our valley. They want to know more about constellations and planets. Children's questions begin stories and discussions that bring us all closer together, strengthening our family and friendships. Drought conditions have banned campfires but we've decided we prefer dim flashlights (if any) and sky watching.

If I hadn't read Dark Skies articles and heard discussions, I wouldn't have thought to use the stars to connect with the first visitors and residents when telling kids about the history of the Valley. ("Whooaa, you mean Kit Carson saw the SAME stars?") Having noticed the effect of the un-shielded lights between town and home, my husband and I are serious about making sure the lights on the house we are designing do not prevent others from enjoying our night sky. We are speaking up to make sure the new church building will protect our natural light resources in town.

I'm thankful to live in an incredibly beautiful area and as an added bonus, among people who believe in preserving natural resources to share with future generations. Our family wants their community to be economically stable without importing urban practices that are harmful to humans, wildlife and our surroundings. I believe that by becoming an International Dark-Sky Community, the towns of Westcliffe and Silver Cliff will attract more people to experience the high mountain valley natural environment while providing an opportunity for them to consider the effects of lifestyle and everyday decisions on their surroundings no matter where they live.

Sincerely,

PO Box 1610

Westcliffe, CO 81252 chipbuffalo@icloud.com

Betsy Banks

Anna Orgeron 573 County Road 356 Westcliffe, CO 81252

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252

To Whom It May Concern:

I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow this path. The stars outside my bedroom window are the last sight I see every night before bed. I thank God that I live in a community that isn't marred by the bright lights of the city.

Sincerely,

Anna Orgeron

Richard Hacker Professor Emeritus, University of Alaska 330 Dora Mountain Road Westcliffe, CO 81252

October 19, 2014

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252

To Whom It May Concern:

I am writing in support of the nomination of the twin towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado. Since moving to this high altitude Wet Mountain Valley over 7 years ago, I have been an eager supporter of the local group, Dark Skies, and its efforts to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies.

Having moved from Alaska where there are lots of opportunities to view the night sky, it is gratifying to find a place where this is still possible in the Lower 48. Such an opportunity deserves further protection so that far into the future, both residents and visitors can continue to enjoy the beauties of the night sky. With certification, this "ecotourism" can become an important part of the towns' economic success.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative long-term health effects on the natural circadian rhythm of land mammals, including humans.

I am a strong supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff.

Sincerely, Irohand Hasler

Richard Hacker

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252

To Whom It May Concern:

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. We sincerely appreciate their efforts to reduce the impact of light pollution, as we consider it a valuable example to other communities to follow this path.

The nightscape observations from a dark location like these Colorado towns deserves protection both now and far into the future.

Certification of the Towns of Westcliffe and Silver Cliff will reduce the impact of light pollution on migrating and resident bird populations that use the rising and setting times of both the sun and moon, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, which is important for long-term health.

Sincerely, Joseph Rook and Karolyn Snow (Blumenau subdivision)

Unternational Dock-Aky Association C/O Dock Akes, alne. P.O. Box 634 Westcliffe, CO 81252

To Whom it may concern:

of the adjoining Towns of Westerffe and tilver Cliff as the first electronal Dark- they Community in Colorado.

Wy family has owned property in the West Mountian Valley for more than ten years. We have come to appreciate and love the breath taking night sky views here. I work as an engineer for Boeing helping to integrate the science experiments to fly to the International space Station (ISS). I was proud and awed as it looked up one recent evening to watch the ISS make a transit across own high altitude clear night sky.

and Lilver Cliff to become the first chitemational Dark- Mky Community in the state of Colorado.

Michael E. Banks

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado. Our local group, Dark Skies, has and is working diligently to reduce the impacts of light pollution of our wonderful star-filled night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that both current and future residents and visitors can continue to enjoy it.

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff and ask that this request for certification be granted.

Sinda Branecky

Sinda Branecky

Westcliffe, Colorado 81252

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

I am writing in support of the nomination of Towns of Westcliffe and Silver Cliff (The Cliffs) as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. The local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey that Dark Skies and the residents can justly be proud.

Viewing this nightscape from a dark location like The Cliffs is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that both residents and visitors far into the future can enjoy. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting/shielded exterior lighting language in their building ordinances.

Certification of The Cliffs will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

We are proud supporters of Dark Skies' certification effort for The Cliffs and consider it a valuable example to other communities to follow this path.

Sincerely,

Robert S. Reed

International Dark-Sky Association c/o Dark Skies, Inc.

Six signatures

To Whom It May Concern:

I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow this path.

Marti Fried aller By Joseph Though

Robert E. Dreher 1011 Sangre Drive Westcliffe, CO 81252

26 October 2014

International Dark-Sky Association C/o Dark Skies, Inc.

To Whom It May Concern:

I am writing in support of the nomination of Towns of Westcliffe and Silver Cliff (The Cliffs) as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. The local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey that Dark Skies and the residents can justly be proud.

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I am a proud supporter of Dark Skies' certification effort for The Cliffs and consider it a valuable example to other communities to follow this path.

Sincerely,

Robert E. Dreher

International Dark-Sky Association c/o Dark Skies, Inc. P.O. Box 634 Westcliffe, CO 81252

To Whom It May Concern:

I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

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Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow this path.

Sincerely,

Douglas J. Schulz Invest Securities Consulting, PC 301 Snowcrest Westcliffe, CO 81252 International Dark-Sky Association c/o Dark Skies, Inc.

P.O. Box 634

Westcliffe, CO 81252

13 signatures combined on edited template letter in the interest of saving pages.

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely,

Donna Thurston

Pacy Thurston

Molly Thurston

Molly Thurston

Les he S. Consise in H. Culdwell

Steve Masswell

Anni Marie Donohoe

Marattai & Whom

### Town and County Citizen Email Letters of Support—

Subject: International Dark Skies designation for Westcliffe.

From: Steve Gunnels <paragon\_engineering@yahoo.com> ▼

To: darkskies@skymtn.com ▼

Cc: Jim Bradburn <jim@ranchobendito.com> ▼

To whom it may concern:

I am a resident of Custer County, Colorado and a consulting engineer specializing in large optical telescope design. I have contributed substantially to the design of five successfull world-class large optical telescopes over the past -30 years including the Giant Magellan Telescope (www.qmto.org) over the past 15 years. I work with some of the world's top professional astronomers and two of them have visited our home here in the Westcliffe area. They have commented on how dark and clear our skies are, and quite good for astronomical observing. I strongly support the idea of our area gaining the international designation as a dark-sky community.

Steve Gunnels 2277 Joy Lane Paragon Engineering Westcliffe, CO. 81252

Subject: Letter of support

From: Steve Linderer <slinderer@gmail.com> ▼

November 2, 2014

International Dark Skies Association c/o Dark Skies, Inc.

To Whom It May Concern

Margaret and I are both former National Park Rangers. Before retiring to the Wet Mountain Valley in 2005 we worked and volunteered for the National Park Service in many areas across the country. Some, like Craters of the Moon NM, Idaho, Yellowstone NP, Wyoming and Hawaii Volcanoes NP, Hawaii were areas with little light pollution of the night sky. We particularly enjoyed our occasional visits to the summit of Mauna Loa volcano in Hawaii (Mauna Kea's much larger but slightly shorter neighbor) which has some of the cleanest air and least light pollution of any place in the world. Other places we lived like New York City, Washington, D.C. and western Pennsylvania near Pittsburgh suffered from extreme light pollution. Even our last home at Fort Larned NHS in western Kansas, where you would think there should be dark skies, had problems with light pollution from a state hospital and prison complex and hundreds of mercury vapor lights on surrounding farms and feedlots.

When looking for a place to retire to we happened on to the Wet Mountain Valley almost by accident. Besides its natural beauty and abundant wildlife we were enthralled by its unpolluted air, water, and the beautiful dark night sky. We immediately determined this was where we wanted to spend our retirement years.

Just look at a nighttime satellite photo of North America and it is obvious how serious a problem light pollution has become across the country. We are very fortunate to live in an area that is dedicated to protecting the night sky. I am proud to be a board member and past president of Dark Skies, Inc. of the Wet Mountain Valley where I can play a role in this effort.

We enthusiastically support the application of Westcliffe and Silver Cliff to become Colorado's first IDA certified Dark Sky Community and believe it richly deserves this prestigious designation.

/s/ Steve Linderer /s/ Margaret Linderer 2177 County Road 260 Westcliffe, CO 81252

Subject: Designation

From: Betty Spitzfaden <bettyspitz@centurylink.net> ▼

Date: 8:30 AM

To: darkskies@skymtn.com ▼

I support the "International Dark Sky Community" designation for the towns of Westcliffe and Silver Cliff in the State of Colorado. It would have a positive impact for all the people here as well as those who would come to see our beautiful skies.

Sincerely, Betty Spitzfaden Resident of Westcliffe.

Subject: Westcliffe Colorado

From: Gary Rinedollar <grinedollar@gmail.com> ▼

Date: 10/20/14 9:16 PM To: darkskies@skymtn.com ▼

#### To Whom It May Concern,

I am writing in support of the nomination of the towns of Westcliffe and Silver Cliff Colorado as a dark sky community.

For most of my life I have had an interest in astronomy and viewing the night skies from Westcliffe and the surrounding area is truly amazing. Our community lies a short distance from major population areas like Colorado Springs, Colorado and can provide an incredible learning and inspirational experience for this community and the state of Colorado.

The towns have speculatively invested in reducing light pollution and we have strong support from the community to continue the efforts. The towns of Westcliffe and Silver Cliff recognize the value of Dark Sky certification which I believe will provide economic benefit from eco-turism which our community desperately needs.

Thank you for your consideration.

Regards, Gary Rinedollar

Subject: Darkskies

From: coloradoboys3@centurytel.net ▼ Reply-To: coloradoboys3@centurytel.net ▼

Date: 10/30/14 8:53 PM To: Darkskies@skymtn.com ▼

Hi, My name is Justice, I am eleven and in sixth grade. I found out that my town is applying for International Dark Sky certification and I think it is really great. Westcliffe is the best place to watch stars. It is super dark because there are no neighbors with lights on. When I look at the night sky, sometimes I think there are more stars than dark spots! I see shooting stars all the time. I think I'm pretty lucky to make that many wishes. It would be incredible to be the ninth town in the world to be certified an International Dark Sky town. Sincerely, Justice Saraceno

Subject: Westcliffe, Co.

From: joanne dauk <jcdauk@gmail.com> ▼

Date: 10/22/14 7:42 AM To: darkskies@skymtn.com ▼

Our high altitude, clear Co. skies and low population with a focus on dark sky appreciation make our community a wonderful place for all night sky watching.

Joanne Dauk

Subject: wet mountain dark skies

From: reddirt2@comcast.net ▼
Date: 10/23/14 10:53 AM
To: darkskies@skymtn.com ▼

The stars in the Wet Mountain Valley make the nights as beautiful as the days there! I enthusiastically support the efforts of the dark skies organization.

Ann MacLaughlin

Subject: Dark Skies Support

From: Polly Miller <bob4polly@gmail.com> ▼

Date: 10/23/14 8:12 PM To: stargazer@skymtn.com ▼

We support the Dark Skies' effort to make Westcliffe and Silver Cliff a Dark Sky Community. What an absolute bonus Dark Skies will be for our communities!

Bob Lee Polly Miller

Subject: Westcliffe Dark Skies

From: Margaret Tschumper <marnitsc@yahoo.com> ▼

Date: 11:43 AM

To: darkskies@skymtn.com <darkskies@skymtn.com> ▼

To who it may concern,

Bill and I, as well as all our children and grand children that visit, comment on how beautiful the stars are here in Westcliffe. It is a treat to be able to see the beautiful stars at night.

Sincerely Bill & Marni Tschumper

Subject: Support application

From: Rebecca Barrow <a href="mailto:strom">btbarrow@gmail.com</a> ▼

Date: 12:46 PM

To: darkskies@skymtn.com <darkskies@skymtn.com> ▼

We support the application to have Westcliffe/Silver Cliff certified as a Dark-Sky Community.

Our local group, Dark Skies has and continues to work to reduce the light pollution of our starry nights for all to enjoy.

Rebecca Barrow and Tom Barrow

Subject: Application for Westcliffe/Silver Cliff - Dark-Sky Community

From: Larraine Zylich ▼
Date: 10/26/14 11:23 PM
To: darkskies@skymtn.com ▼

To whom it may concern,

My husband and I support the application to have Westcliffe/Silver Cliff certified as a Dark-Sky Community. It is such a blessing to live here, and enjoy our starry nights that are much more spectacular when they aren't competing with local light pollution. A clear star-studded night in Westcliffe/Silver Cliff is amazingly breathtaking. And just as we did before moving here, many look forward to visiting our beautiful community to ponder the mysteries of the impressive night sky, after traveling from large metropolitan areas like Colorado Springs or Denver, where the various astronomical wonders, just can't be seen. These folks look forward to getting away from the rush, stress and pollution of their metropolitan environment to breathe the fresh air and take in our magnificent night sky.

Thank you for your consideration.

Dean and Larraine Zylich

Subject: Support!

From: Carrell Pickoff <carrellp@yahoo.com> ▼

Date: 7:03 AM

To: darkskies@skymtn.com <darkskies@skymtn.com> v

As a part time resident in rural Westcliffe I would like to join in with fellow Westcliffe residents in support of Dark Skies designation! There is absolutely nothing more amazing than our beautiful night skies, clear Colorado nights & mountain elevation. Our skies are a spectacular light show!

Sincerely, Carrell Pickoff 3 Ilse Loop Westcliffe, CO 81252

Subject: Support

From: Donna Burge <DBurge@lfcc.edu> ▼

Date: 10:21 AM

To: darkskies@skymtn.com <darkskies@skymtn.com> v

To whom it may concern:

I am writing on strong behalf of the Dark Skies. Initiative for Westcliffe and the Custer County area. I built a house there in 1999, and have been increasingly dismayed by the gradual loss of that beautiful part of our environment.

Light pollution has made night sky enjoyment a thing of the past for the east coast and most other parts of the country. Please don't let it happen here. Sincerely,

Dr. Donna Burge 6260 cty rd 255 Westcliffe, CO 81252

Subject: Dark Skies in Westcliffe, Colorado

From: Elaine Hall <ruthie2041@gmail.com> v

Date: 10/30/14 8:35 PM To: darkskies@skymtn.com v

I support the Dark Skies project here in Westcliffe, Colorado.

We moved here in 2007 and have appreciated the efforts of private citizens and businesses to keep our area as dark as possible so as to see the beautiful stars, planets and Milky Way with an unaided eye or a telescope right here in town.

Let's keep it up Westcliffe!

Elaine Hall P.O. Box 1609 Westcliffe, CO 81252

Subject: Letter of Support

From: Rex Stage <rexmstage@gmail.com> v

Date: 12:28 PM

To: darkskies@skymtn.com ▼

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely, Rex and Marilyn Stage P.O. Box 804 Westcliffe, CO 81252

Subject: I SUPPORT Dark Skies! (Carolyn Reed)

From: Bob and Carolyn Reed <zepcommando@yahoo.com> ▼
To: darkskies@skymtn.com <darkskies@skymtn.com> ▼

International Dark-Sky Association

c/o Dark Skies, Inc. <darkskies@skymtn.com>

To Whom It May Concern:

I am writing in support of the nomination of Towns of Westcliffe and Silver Cliff (The Cliffs) as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. The local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey that Dark Skies and the residents can justly be proud.

Certification of The Cliffs will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

We are proud supporters of Dark Skies' certification effort for The Cliffs and consider it a valuable example to other communities to follow this path.

Sincerely, Carolyn Reed

Subject: Support Dark Skies

From: patty reagin <patty\_reagin@yahoo.com> ▼
Reply-To: patty reagin <patty\_reagin@yahoo.com> ▼

Date: 2:11 PM

To: darkskies@skymtn.com <darkskies@skymtn.com> ▼

#### To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely,

Patty Reagin and Jason Steinberg

Patty Reagin Medical Industry Copywriter www.medicalindustrycopywriter.com Phone (303) 947-7880

Subject: Certification of the Towns of Westcliffe and Silver Cliff

From: Randy Hicks <rphicks46@gmail.com> ▼

Date: 5:40 PM

To: darkskies@skymtn.com ▼

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

I am writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

I am a proud supporter of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and I consider it a valuable example to other communities to follow this path.

Sincerely,

Randy Hicks 1182 Wykagyl Rd. Westcliffe, CO

Subject: Support for Certification of International Dark-Sky Community for the Towns of Westcliffe & Silver Cliff, Colorado

From: Terri Wiebke <terrilynn1229@yahoo.com> \*

Date: 10/19/14 4:31 PM To: darkskies@skymtn.com ▼

International Dark-Sky Association c/o Dark Skies, Inc.

To Whom It May Concern:

We are writing in support of the nomination of the adjoining Towns of Westcliffe and Silver Cliff as the first International Dark-Sky Community in Colorado and also the highest in altitude of any already approved. Our local group, Dark Skies, has and is working diligently to reduce the light pollution of our wonderful "nightscape" of star-filled, night skies. The protection of this valuable resource to both towns has been a 15-year journey of which both Dark Skies and the residents can be proud.

Viewing this nightscape from a dark location like these Colorado towns is a magical experience of unparalleled beauty and awe that the founding pioneers of this area had as a part of their lives. It deserves protection so that far into the future, both residents and visitors can continue to enjoy it. With certification, this "eco-tourism" can become an important part of the towns' economic success. But the long-term protection of the nightscape is dependent on the towns' enforcement of non-polluting, shielded exterior lighting language in their building ordinances.

Certification of the Towns of Westcliffe and Silver Cliff will also reduce the impact of light pollution on migrating and resident bird populations that use the moon, rising and setting sun times, and various aspects of the night sky for their instinctive behaviors. It will also reduce the negative effects on the natural circadian rhythm of land mammals, including humans, that are important for long-term health.

We are proud supporters of Dark Skies' certification effort for the Towns of Westcliffe and Silver Cliff. It will reduce the impact of light pollution and we consider it a valuable example to other communities to follow this path.

Sincerely, Terri & Steve Wiebke

### Support Indicated by "Likes" on Facebook Group—





### International Dark-Sky Community Certification Towns of Westcliffe and Silver Cliff Nomination Application

# Part VII — Sky Quality Monitoring (SQM) Program

Adjoining Towns of Westcliffe and Silver Cliff (Plan Revision Date: February 26, 2014)

#### 1. PURPOSE

Dark Skies, Inc. of the Wet Mountain Valley will establish this Sky Quality Monitoring Program to monitor the darkness of the night sky in and around the adjoining towns of Westcliffe and Silver Cliff, Colorado. This will allow us to assess the effectiveness of future light pollution mitigation efforts in the Wet Mountain Valley. The monitoring program may also be used to support an application to International Dark Sky Association for certification as a "Dark Sky Community".

### 2. EQUIPMENT

The monitoring program will utilize a Unihedron Sky Quality Meter (SQM). This meter measures the darkness of the sky in magnitudes per square arcsecond (mag/arcsec $^2$ ). This is a logarithmic measurement which means that large changes in sky brightness correspond to relatively small numerical changes. The meter's range is roughly 16 to 23. Lower numbers indicate more light pollution. Higher numbers indicate darker skies. Readings over about 20.00 indicate "dark skies". The SQM is not affected by temperature and is typically accurate to  $\pm 0.10$ . The SQM has a field of view of  $120^{\circ}$ .

### 3. MEASUREMENT LOCATIONS

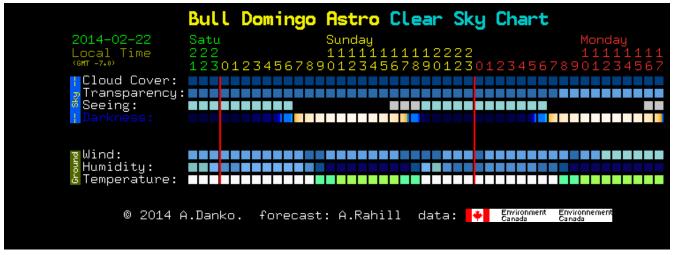
Ten locations have been identified in and around Westcliffe and Silver Cliff at which to take regular sky quality measurements. These locations are shown on the attached map and identified by description and latitude and longitude on the attached Sky Survey Data sheet. The locations were chosen to contain a mix between sites on the edge of the towns likely to have darker skies and sites in the middle of the towns likely to have brighter skies. One particular site, shown as #4 on the map and identified as "The Bluffs", is the general location where Dark Skies conducts public programs such as Star Parties.

#### 4. TIMING

The initial base line sky quality measurements at the 10 locations are planned for the month of March, 2014. Thereafter, measurements will normally be taken once per calendar quarter. It is recommended that the regular measurements be scheduled early in each quarter in case prolonged cloudy weather, smoke or other conditions cause delays.

#### 5. METHODOLOGY

Readings will be taken only on dark nights with few or no clouds and no smoke or dust. A
good reference to determine the best nights to take readings is the Clear Sky Chart for Bull
Domingo Astro at <a href="http://cleardarksky.com/c/BllDngObCOkey.html?1">http://cleardarksky.com/c/BllDngObCOkey.html?1</a>
 SAMPLE:



A private observatory site near Westcliffe.

- Readings should be taken at least one hour after evening astronomical twilight ends or before morning astronomical twilight begins.
- Readings should be taken at least one hour before moonrise or after moonset.
- To take a reading hold the SQM above head height pointing the sensor directly at the zenith and push the button. A reading to two decimals, such as 21.25, will appear in a few seconds.
- Ensure no direct light from nearby light sources hits the SQM sensor and there are no trees or other objects blocking the sky.
- Take 3 consecutive readings at each site and record the numbers. Determine the mean for each site by adding the 3 readings and dividing by 3. That result will be the final reading for the site.
- Complete the Survey Data Sheet and take readings for all 10 sites on the same night if at all possible.

### 6. FUTURE

- After several quarterly sky quality measurements have been made a spreadsheet will be developed to track the changes by a table and by charting.
- To supplement the SQM monitoring Dark Skies will also undertake to measure at least one site (probably #4, The Bluff) using the Bortle Scale and also take a sky photo for Photographic Evidence. These supplementary sky measurements will be repeated no more often than annually.

#### 7. COMMENTS

As opportunities arise and circumstances dictate Dark Skies will also take SQM readings occasionally at other locations around the Wet Mountain Valley to compare with readings taken during this monitoring program. Some suggested sites include Beckwith Ranch Historic Site, Rosita, Lake DeWesse State Park, Alvarado Campground, Silver Cliff Cemetery, various area private observatories, subdivisions and others.

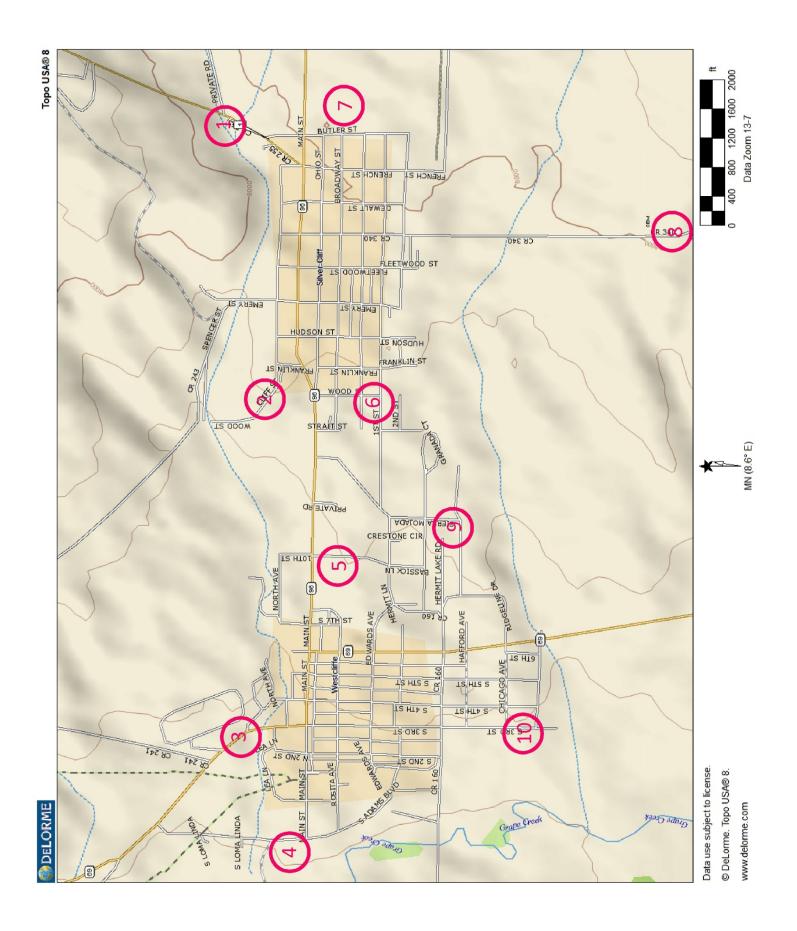
Random and occasional SQM readings will also be taken in surrounding areas and communities for comparison. These may include Gardner, Wetmore, Florence, Cañon City, Hillside, Great Sand Dunes National Park, and others.

#### 8. RESULTS

The SQM results of four sets of measurements at 10 sites are presented below. Of the total of 40 measurements, only seven were less than 21.0, with the lowest value being 20.34 (with snow covered ground). With the natural, unpolluted starry sky having a rating of 21.6, the averages of 21.07–21.27 for Westcliffe and 21.02–21.45 for Silver Cliff are treasures to be protected.

SKY QUALITY MONITORING (SQM)												
TOWNS OF WESTCLIFFE AND SILVER CLIFF, COLORADO												
READINGS ARE IN MAG/ARCSEC <sup>2</sup> READINGS ABOVE 20.00 = "DARK SKIES"												
DATE		CITE 2	CITE 2	CITE 4		CITE C	CITE 7	CITE O		CITE 10	AVG	AVG
												SILVER CLIFF
26-Feb-14											21.07	21.22
20-May-14	21.54	21.28	21.13	21.12	21.13	21.32	21.47	21.56	21.35	21.37	21.22	21.43
23-Jul-14	21.53	21.31	21.13	21.23	21.18	21.30	21.52	21.57	21.39	21.42	21.27	21.45
17-Nov-14											20.62	21.02

**Note:** the 17-Nov-14 readings were taken with snow covered ground that accentuated the skyward reflection of artificial lighting, especially from street light fixtures.



### SKY SURVEY DATA SHEET

DATE//	TIME BEGAN	TIME FINISHED _	
SURVEYORS	· · · · · · · · · · · · · · · · · · ·		
WEATHER CONDIT	IONS		

SITE	SITE	LAT	RDNG	RDNG	RDNG	AVG
#	DESCRIPTION	LONG	1	2	3	
	1425 CR 255(Oak	N38°8.770'				
1	Creek Grade) at	W105°26.072'				
	Walker Welding					
	Cliff St corner at	N38°8.233'				
2	Timberline Heating	W105°27.110'				
	Intersection HW69	N38°8.320'				
3	& 4 <sup>th</sup> St at	W105°28.070'				
	Stop Sign					
	W. end of Main St	N38°8.176'				
4	The Bluffs parking	W105°28.376'				
	lot					
	Bassick Business	N38°8.060'				
5	Center parking lot	W105°27.568				
	8 Bassick Place					
	Intersection 1 <sup>st</sup> &	N38°7.999'				
6	Wood	W105°27.117'				
	Silver Cliff					
	Dundee Mem Dog	N38°8.070'				
7	Park parking lot	W105°26.308'				
	N end Broadway					
	Silver Cliff	N38°7.350'				
8	Cemetery gate	W105°26.636'				
	CR 340					
	S end of Sierra	N38°7.839'				
9	Mojada Silver Cliff	W105°27.448'				
	S end of 3 <sup>rd</sup> St	N38°7.654'				
10	Westcliffe	W105°28.063'				

