



Annual Report 2016

GOLD TIER - Designated 9th December 2013



Northumberland National Park



Cawfields Dark Sky Discovery Site, Hadrian's Wall World Heritage Site

Public interest and further commitment to conserving our dark skies has continued throughout 2016. The legacy of the investment secured in 2015 through the Animating Dark Skies project has been maintained and enhanced, with many more communities and businesses developing facilities and policies to this effect.

ENJOY THE DARKNESS

Kielder Observatory Astronomical Society Report

Activity and bookings at the [observatory](#) continue to be at a high level with a significant increase in bookings particularly during July and August, following local and national media coverage of the launch of Gary Fildes's book 'An Astronomer's tale', which is anticipated to continue for the remainder of 2016. Future high profile events planned include Kielder being featured on BBC Countryfile Autumn Watch due to be aired week commencing 24 October 2016.

Planning work has been progressed for the future expansion of the observatory initially with the development of an additional observatory. Planning permission has been secured during the

past year and grant applications have been progressed. Depending on securing a positive outcome it is hoped that work can be commenced in late 2016 / early 2017 to enable the new facility to be operational in the Spring of 2017. This will add to both the capacity and quality of the visitor experience in the existing and new facilities.

As well as the expanding range of activities and events at the observatory itself, other related events have continued throughout the year at Kielder Castle with the Planetarium in the Park events, Wild Northumbrian and the popular Sunday evening series at the Vermont Hotel in Newcastle.



The observatory team has also been in discussion with various schools and colleges across the region as part of developing the educational outreach programme. This will step up during the autumn term with a number of the Science Presenters visiting schools with the mobile planetarium and other equipment to present an introduction to astronomy to young observers.

Plans for the Astronomical Village to include a planetarium, lecture and catering facilities have been further developed with the preparation of a prospectus and outline development costs and the

exploration of funding opportunities for grants and donations.

The team from the observatory has been delighted to work with partners and continue to enjoy a high level of collaboration and support for their future plans and also to join in the further development and promotion of the Dark Sky Park.

New: Rochester Roundhouse



The transformation of a dilapidated site in the village of Rochester in the National Park into a star attraction and centre for village activities was unveiled to the public in August.

The development was undertaken by students from Newcastle University's School of Architecture, Planning and Landscape, who worked in partnership with Kielder Water & Forest Park Development Trust's Art & Architecture programme and the local community, designing and constructing an open air amphitheatre and contemporary timber pavilion to be used for stargazing, musical performances, and a range of community workshops.

Redeveloping the roundhouse was the latest part of an ongoing collaboration between the School of Architecture and the Development Trust to create public facing architectural commissions and activities. Past work has included constructing a Stargazing Pavilion at Stonehaugh and The Warm Room on Kielder's community campsite in 2015.

Red Kellie, Vice Chair of Rochester Village Hall, said:

"This project is one of true collaboration, bringing the community together with many other parties, including students from around the world, to create something very unique for the people of Rochester and visitors from further afield. We are very grateful to all who have taken part in the creation of this fabulous new roundhouse."

Support from the project came from a range of organisations, and students from Newcastle University worked with volunteers from Malaysia, Oman, the UAE, China, Germany and Canada, to complete the project.

Other support from partners included grants from Northumberland National Park Authority, Northumberland County Council, Arts Council England, Lord Redesdale, Redefest, and the Sir James Knott Trust.

Peter Sharpe, Kielder Art & Architecture curator, said:

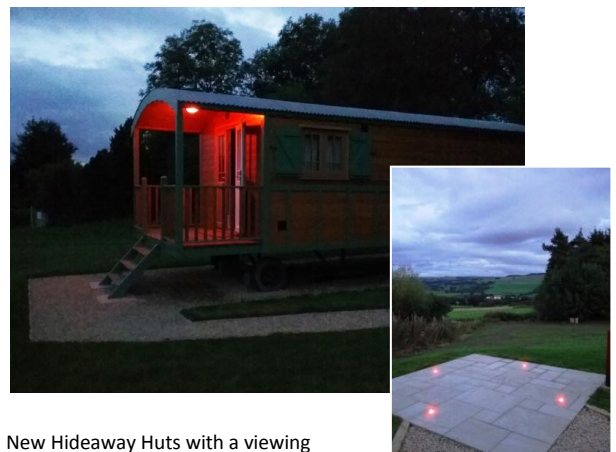
"Bringing everyone together in this way to create something wonderful for the community and for visitors to the area is a fantastic achievement. We are blessed with the darkest skies in England and structures such as this help us to enjoy and celebrate them."

Tourism businesses see the light!

Right across Northumberland, tourism businesses, are welcoming more and more visitors from far and wide, who are seeking a peek at the stars.

[Battlesteads Hotel Observatory](#) on the edge of the DSP, welcomed more than 1,500 visitors to its small observatory over the last year, with bookings contributing 15% to the Hotel's income – a welcome boost, especially in the winter months, when trade in the past used to be much quieter.

The proprietors of [Stanegate Hideaways](#), following a talk on dark skies, were inspired to develop their new visitor accommodation to be dark-sky friendly, installing fully-shielded lighting on their new holiday homes and constructing a viewing platform for amateur astronomers to set up their scopes, as well as providing some observing equipment for guests to use.



New Hideaway Huts with a viewing platform for sky observations

[Kielder Waterside](#) is a new exclusive waterside development of forest lodges offering an outdoor escape with a touch of luxury. Earlier this year, the architects of the new development were advised by the Dark Sky Steering Group to install fully shielded lighting and on the type of telescopes being provided in each lodge for guests to use. All recommendations have been fully implemented.

Elsewhere around the Dark Sky Park, partners are delivering an increasing number of public dark sky events throughout the year, and the public demand for these is still increasing. Local hotels and pubs are running their own events too e.g. [The Twice Brewed Inn](#)

Leaving them starry eyed!

Reaching out to nearby communities in our regional towns and cities and inspiring residents and visitors to be more aware of our dark skies is an increasing priority for all partners. This August, the [Tall Ships Regatta in Blyth](#) provided wonderful opportunity for both the National Park and Kielder Water and Forest Park to engage with up to 400,000 visitors over the 4-day event. Both parties took along their Solar Scopes and introduced many hundreds of visitors to the wonder of our nearest star. For most, it was the first time ever and for many, was the best thing they had seen all day!



A Lunt 80mm Solarscope in use on the National Park stand at the Tall Ships Regatta

Dark Sky-Friendly a lo-go!

More than 40 businesses have signed up to the voluntary code developed by the Dark Sky Steering Group for tourism businesses in Northumberland to become dark sky-friendly. The logos above can be used by businesses in their respective marketing media, if they can demonstrate that they go the extra mile to welcome stargazers and have ensured their outside lighting is suitable

Carrol Armstrong from the Redesdale Arms who organises astro-breaks said:

“The Stay & Gaze logo lets people know they can come here to stargaze and don’t have to go out to other dark sky sites...it appeals to guests who want a less formal arrangement.”



Astro-tourism a “game-changer” for rural businesses

Northumberland Tourism is gathering more evidence that astro-tourism is making a positive impact to Northumberland’s visitor economy, especially in rural areas. Market research, following a successful autumn and winter marketing campaign around our dark skies found that 63% of respondents had visited the county during the months October to February, compared to 9.5% in the annual visitor survey. 50% said seeing the campaign probably or definitely turned a possible visit into a certainty.

Due to its success, the dark skies themed campaign will be rolled out over the next two years.



CONSERVE THE DARKNESS

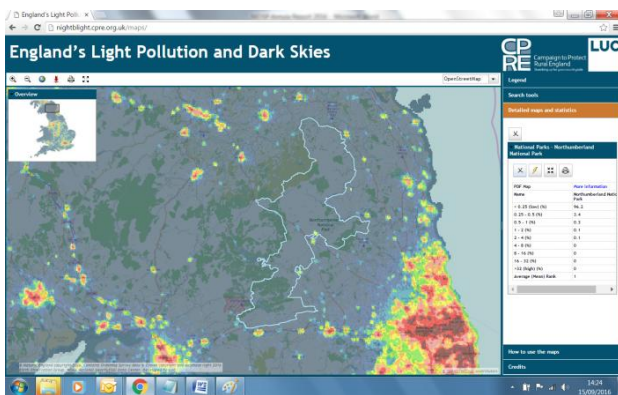
New light pollution maps published for England

The Campaign for the Protection of Rural England has published new maps of Great Britain’s light pollution and dark skies. Using data captured by a satellite throughout September 2015, the latest technology has been used to give an accurate

picture of how much light is spilling up into the night sky and show where action is now required.

With funding from Northumberland National Park Authority and from other protected landscapes, detailed maps have been created for England showing districts, counties, National Parks and Areas of Outstanding Natural Beauty. They present the most accurate ever picture of Britain's light pollution and darkest skies. A report "[Night Blight: Mapping England's light pollution and dark skies](#)" makes recommendations to Government, local authorities, Highways England and others with the aim of reducing light pollution.

The good news is that the [new maps](#) show that Northumberland still has the highest proportion of pristine dark skies in England at 72%.



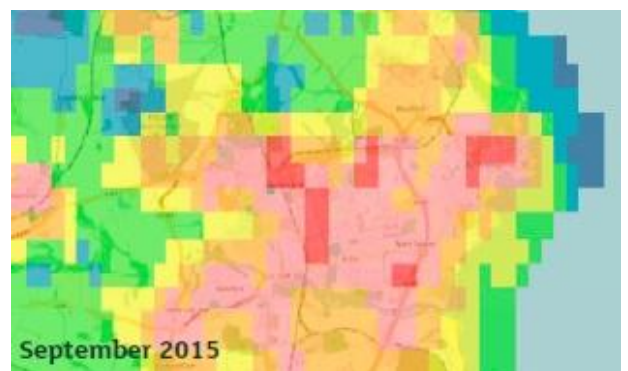
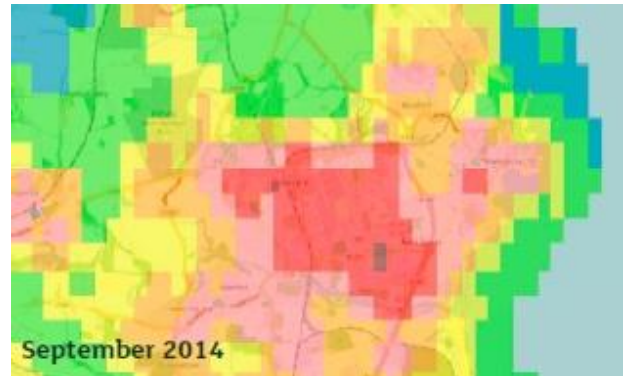
Throughout September, I attended all four [County Council Area Committees](#) on behalf of the Dark Sky Steering Group, and introduced these maps to every Councillor, requesting that they are considered by their officers in their respective departments, when planning future developments.

Street lighting improvements

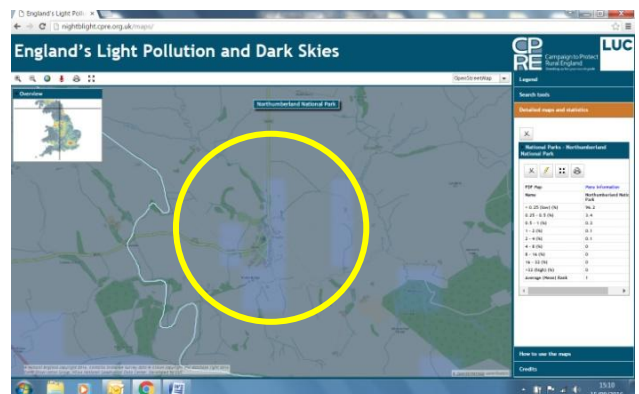
The County Council's £25 million project to modernise all the street lights in the county over the next three years with better designed (fully shielded) LED technology is beginning to make a positive impact to our dark skies.

The programme to renew the street lighting started in Ashington, which is outside of the Dark Sky Park, but is part of the wider urban conurbation that spills light towards it. CPRE compared how upward light pollution looked in the town in 2014, with September 2015 after the new LED Lanterns had been installed. The images were taken by the same satellite passing over at 1.30 am. The satellite images show a clear change in the distribution of light around Ashington since the street lights were changed to LED.

In 2014, a large amount of the upward light pollution from the town fell in the second brightest category (red) but this appears to have changed by September 2015. There are also more blue (darker) pixels in September 2015, indicating less light pollution spilling up into the night sky as a result.



Within Northumberland International Dark Sky Park, the village of Elsdon (Population: 250 residents) had all 15 of its street light luminaires replaced with the new flat-glass LED lantern. The map below (within the yellow circle) clearly shows how effective they have been in reducing upward light spill, resulting in a negligible impact on the night blight map.



Elsewhere in the Dark Sky Park, new fully-shielded LED lanterns were installed in the village of Kielder. The replacement programme of 17,500 street lights with the new fully shielded LED luminaires is due to finish in 2018.

New Plan strengthens Park's commitment to Dark Skies

The National Park Management Plan is the single most important document for each National Park. It sets out the vision, policies and outcomes for the National Park over the long term

This year, the [Management Plan](#) was reviewed and updated, acknowledging the designation of the Dark Sky Park for the first time since it was designated in 2013. The aim of full compliance of the Dark Sky Park Lighting Master Plan

A new [Good Practice Guide For Outside Lighting in Northumberland International Dark Sky Park](#) was published earlier this year to help developers and local residents understand more easily how to minimise light pollution through the correct choice and installation of fully shielded outside lighting.

Sharing our experiences with other Dark Sky Parks

Earlier this year, Northumberland National Park Authority was approached by Snowdonia National Park, who had recently been awarded dark sky status, to share our experience of working within our Dark Sky Park. The Head of Development Management and the Landscape Officer visited Snowdonia in February and gave a joint presentation to members, planners, ecologists and managers, sharing our knowledge and experiences to help Snowdonia understand what is needed to ensure the Dark Sky Park is not compromised.

We discussed the important role of planning in protecting and improving the dark skies, managing expectations of both local residents and members, and to get developers and residents thinking about appropriate lighting at an early stage.

The National Park planning team continue to work closely with their counterparts at Northumberland County Council, providing training for their planners. We continue to ensure we are consulted on planning applications that are proposed close to the Dark Sky boundary that could impact upon the dark sky. This enables us to ensure only appropriate dark sky lighting is approved.

Beyond the Dark Sky Park

The North Pennines Area of Outstanding Natural Beauty is located just to the south of Northumberland National Park, and has been an active partner in promoting dark sky conservation and organising its own [dark sky events programme](#). One of the AONB Partnership's most exciting projects this year has been the construction of a the new North Pennines Observatory hosted by [Allenheads Contemporary Arts](#) in the Allen Valleys, which is due to be launched on 28th October 2016.

The [Northumberland Coast Area of Outstanding Natural Beauty](#) has some of the most unspoilt coastlines in the UK, with miles of empty (and dark) beaches, which are becoming more popular with astro-photographers wanting to capture the Aurora. The Northumberland Astronomical Society ([NASTRO](#)) has a small observatory at Hauxley Nature Reserve, and host a number of stargazing events for its members and the public.

Main Contacts

Northumberland National Park Authority:
Duncan Wise, Visitor Development and Marketing Manager, Tel: +44 (0) 1434611521
duncan.wise@nnpa.org.uk

Kielder Water & Forest Park Development Trust:
Lynn Turner, Director, Tel: +44 (0) 1661 855536
lynn.turner@visitkielder.com

Forestry Commission:
Alex MacLennan, Recreation & Public Affairs Manager (North East),
Tel: +44 (0) 0300 067 4205
Alex.MacLennan@forestry.gsi.gov.uk

Twitter: @VisitNland @NlandNP
@VisitKielder @kielder_obs @NorthPennAONB

Facebook: VisitNorthumberland
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KielderObservatory NorthPenninesAONB

We use these hashtags for the NIDSP:
#NlandDarkSkyPark #Nlandstars
#npenndarkskies