

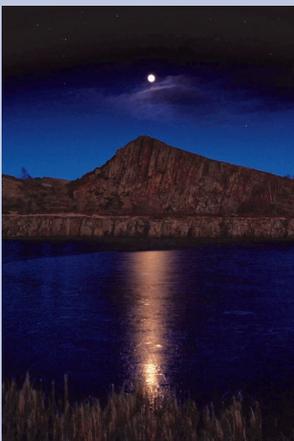
DARK SKIES

FACTS

'Light Blight' maps published by the Campaign for Rural England (CPRE) in the last 20 years or so have shown that areas of North East England with truly dark skies decreased by 28% and that 'sky glow' (the orange light haze over urban areas) rose by a whopping 1000% between 1993 and 2000. Unfortunately, this trend is still very much on the increase!

It is estimated that the cost to the nation of this 'wasted' light into the night sky is £1 billion a year!

Nocturnal animals such as bats and moths are also being disrupted by light pollution and there is increasing evidence that too much light at night can contribute to poor and disturbed sleep patterns with a risk to our health and wellbeing.



Cawfields Dark Sky Discovery Site on Hadrian's Wall.

Why should Northumberland National Park become an International Dark Sky Reserve?

The *International Dark Sky Association* (IDA) is the leading organisation combating light pollution worldwide. The IDA awards the designations of 'Dark Sky Reserve' or 'Dark Sky Park' to those wilder places that demonstrate an ability to conserve the dark skies above them and are committed to providing opportunities for the public to enjoy them.

We believe that Northumberland National Park could become an **International Dark Sky Reserve**, making it only the second one in Europe.

We are not alone!

The National Park Authority is working collaboratively with Kielder Water and Forest Park, who are committed to becoming only the second **International Dark Sky Park** in Europe. With the superb facility of Kielder Observatory and its programme of star camps, it has already become one of the most popular attractions in Northumberland.

What does this mean for residents in the National Park?

To attain the prestigious status of becoming a Dark Sky Reserve, we need to demonstrate that as a



Northumberland National Park



Sky Glow (light pollution) photographed over Hadrian's Wall at Steel Rigg, looking towards Peel Craggs

community, we are committed to minimising light pollution. We need to be able to identify a 'core zone' which we can keep dark, surrounded by a 'buffer zone' in which we can show sympathetic actions to maintain the quality of darkness in the nearby dark core zone.

This is a process built on consensus. It is one where we will help you try to improve the quality of outside lighting in your community by ensuring that lighting is in the right place and doing the right job at the right time. It is principally about how to reduce the pollution from *wasted* light emissions.

The core zone is not yet defined, but we have drafted a map showing the darkness of the night sky (based upon sky quality meter readings) and the area's accessibility (Open Access Land) which is attached to this Fact Sheet.

Over the next few weeks, we will be consulting with residents and Parish

Councils representing those communities on the definition of the 'core zone', to ensure that residents fully understand and are happy with the proposition.

Another important task in the application process is to undertake an **Audit** of all outside lights in the proposed core zone over the next few months. We need to provide evidence to the IDA of the percentage of external light units that are already compliant i.e. that are low wattage, or are installed correctly with no wasted light being emitted upwards into the night sky. We may already be dark sky friendly but we won't know until we have completed the audit.

By working together to conserve our dark skies, we will be able to improve the quality of our street and safety lighting through careful planning, design and installation. We will retain a quality of life that is appreciated by us all.

“The Dark Sky Reserve designation could stimulate the development of new and sustainable tourism based on extreme tranquillity, star gazing and astronomy that would benefit local accommodation providers and other tourism-related businesses - especially those located in the more remote rural areas.”



Solar Gazing event at Cawfields Dark Sky Discovery Site in July 2011

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Frequently Asked Questions

1) What will be the advantages of the Dark Sky Reserve designation?

1a) for those living in the proposed core zone

You will be able to see the stars at night and know that future generations will be able to do the same. You will know also that your outside lighting is not wasting light (saving you money). If you run a tourism business, you can use the designation to market your business and develop star gazing activities linked to your business

1b) for those living in the proposed critical buffer zone

The same advantages as for those living in the core zone.

1c) for those living beyond both zones

You will know that there is an area where you will be able to see the stars at night and know that future generations will be able to do the same. You will also know that you are contributing towards this designation by making choices in the way your outside lighting is installed to be dark sky friendly.

2) Will the outside lights on my house be audited?

2a) for those living in the proposed core zone

Yes, we would like to visit your property and count the number of lights that you have, work out, which ones are dark-sky friendly and which ones may need adjusting to become so. We do not want to be intrusive and will contact you beforehand to arrange a convenient time. We will also be counting the number of

street lights and promise to work with the County Council to see how we could improve these too. To become a Dark Sky Reserve, we need to demonstrate that at least 80% of all outdoor lights are dark-sky friendly.

2b) for those living in the critical buffer zone'

A sample of domestic outside lights may be identified, but the focus here will be on the public and or commercial installations with large wattage lighting units. We may want to create some exemplary schemes at public or commercial level rather than at domestic residences. If we achieve better than 80% compliance in the core or critical buffer zones, there will be very little the public need to do. *Note: Tungsten halogen lights in particular that are poorly fitted with the glass elevated will bring the average score down.*

2c) for those living beyond both zones

No, but you may still want to look at your outdoor lights to see how they could be redirected/adapted to minimise wasted light pollution into the night sky.

3) If my lights are not dark sky friendly, will I have to replace them?

3a) for those living in the proposed 'core zone'

Yes, but not immediately. You may find that by replacing the bulb with a low wattage bulb, or by tilting the light unit downwards may improve it straight away. A small grants pot will be made available to residents in the proposed core zone to help them with replacements if

need be, but we will need to complete the audit first to find out.

3b) for those living in the critical buffer zone

No, but we would encourage you to consider the choice and installation of outside lighting when you need to replace them in the future.

3c) for those living beyond both zones

As for 3b.

4) Will I be prevented from putting up outside lights on new development?

4a) for those living in the proposed core zone

No, but a *Lighting Management Plan* will be produced, which will give you and planners specifications on the type of outside lighting that would be allowed within the core zone. It is possible to have lights in the core zone as long as they are dark sky friendly. New residences in the core zone will require fully shielded lights to be fitted from the outset with other existing luminaires being replaced at their end of life by fully shielded examples.

4b) for those living in the critical buffer zone

No, but we would encourage you to use *The Lighting Management Plan* to choose outside lighting that is dark sky friendly .

4c) for those living beyond both zones

As for 4b.