

South Downs National Park...

A Dark Skies Reserve in the making?

Short Term Plan: 2013

The first step is to gather data on the sky quality across the downs and find out if an application is possible.

Due to the lack of wide and large areas of open access, dark skies reserve status presents the South Downs National Park with a unique challenge; we do not know where and how accessible our dark areas are. Although satellite data in the CPRE Night Blight Report (2007) shows where these dark areas could be, real on-ground data is needed for a dark skies application. And as we cannot solely take a number of readings at static site annually, sky quality data for all areas of the South Downs National Park need to be collected.

Data will be collected using the same technique used in other National Park dark sky applications. A Sky Quality Monitor (SQM) is used to record the brightness of the sky, expressed in magnitudes per arcsecond². Each average reading will be at approximate 500m spacing across the downs, where possible. Our first SQM's results in dark areas are of around 20.8 (Bortle Scale 4.5) that shows a sky quality good enough to apply for Bronze level IDR status.

In addition to local astronomers helping in recording SQM data in their areas, other supporting evidence, such as photographs and the CPRE Orion Star Count will also be used.

Once we have found and mapped where all the dark and light areas are we can then draw a rough estimate of the dark sky core boundary and where critical areas – those at threat from light pollution – will be. Once complete, we can then work with the Parishes, communities and astronomy groups that surround the core area and look at how we can improve the lighting and further improve the dark skies.

Finally, after the extent of the lighting and the dark skies have been mapped, we will consult with the International Dark Sky Association to see if our plans are acceptable...then the hard work really begins!

Light pollution reduction on the South Downs National Park is already off to a good start. Over the next few years many streetlights will be changed to modern LED lights. These are much better than the orange lights that currently cause light pollution, as they do not allow any light to 'spill' upwards and into the sky. They will also be dimmed and trimmed to further enhance the special dark sky qualities of the park.