

Dark Skies

In Long Compton we are part of the 3% of the UK's population which can see more than 30 stars in the night sky. At the heart of the village, on Aunt Phoebe's Recreation Ground, we have a designated Dark Sky Discovery Site. What's more, just beyond the boundary of the village, we have another such site, at the Rollright Stones. Both are of 'Milky Way' status, meaning that the Milky Way can be seen from them with the naked eye. Unfortunately, if you look down at the village from the surrounding hills, it is clear that we are generating sufficient light pollution to constitute a threat to our privileged status.

The Parish Council wholeheartedly supports and subscribes to the Dark Skies movement. The Long Compton Neighbourhood Development Plan's Policy E3 is very firm about the village's commitment.

Dark Skies Development proposals will only be supported if they do not jeopardise the status of Long Compton's dark skies site. Any applications for new development that requires a lighting scheme should show how the status of dark skies will be protected..... External lighting installations must be designed and maintained to minimise light spillage...

The Parish Council is supported in its resistance to anything that might compromise its Dark Sky status by the policies of the Cotswold National Landscape (formerly the AONB). The dark skies of the Cotswolds are one of the distinctive features of the area, which the organisation seeks to defend. This is from their Position Statement. ([Position Statements - Cotswolds AONB](#))

POLICY CE5: DARK SKIES

1. Proposals that are likely to impact on the dark skies of the Cotswolds AONB should have regard to these dark skies, by seeking to (i) avoid and (ii) minimise light pollution.

2. Measures should be taken to increase the area of dark skies in the Cotswolds

The Parish Council's third support is the [International Dark-Sky Association](#) , an invaluable source of information.

One might be tempted to dismiss the whole Dark Sky movement as something for the benefit of astronomers, stargazers and other fringe interest groups.. To do that would be seriously to underestimate the central importance of dark skies to our own health and to the health of all the ecosystems which constitute the matrix within which we are able to sustain our lives.

All life on the planet evolved over millions of years in which the daily cycle of light and dark exercised a profound influence over physiology and behaviour. To interfere with that cycle by introducing artificial lighting is to invite profound disruption to the most basic processes of life.

- In humans, such disruption can lead to sleep disorders, and predispose the body to susceptibility to a number of serious disease.
- Much the same applies to animals, which may also have their breeding cycles and migratory movements disrupted.
- Migratory birds may well have their movements disrupted, and several of our songbirds, notably the robin, will sing all night where there is constant artificial light.
- Sea creatures are easily disoriented by artificial light. Their breeding success can be adversely affected by intrusive artificial light.
- Insects are at the base of the food chain, and perform important functions as scavengers and as pollinators. They are particularly vulnerable to light pollution, the behavioural cycles of diurnal species being disrupted as much as the nocturnal. Moths will circle lights until they die of exhaustion. Not far from us, a thriving colony of glow worms was wiped out by a (mostly unnecessary) lighting installation. The female glow worm glows to attract a mate. In quite low levels of light intensity, the males can't see the females. Reproductive activity comes to a full stop,

- Bats, some of them quite rare, like our Myotis, long eared and Bechstein bats, fly into the village to forage. We know, of course, that bats are great echo-locators, but many species have eyesight geared to very low levels of light. They will avoid anything they perceive as glare, and that need not be very bright, and this can limit the areas over which they forage by blocking their access.

What kinds of light pollution do we have, and what can we do to minimise their impact?

Sky glow

Sources of artificial light – principally street and large-scale industrial lighting - produce a characteristic glow in the sky over conurbations, and increase light levels far from their points of origin. They represent inefficiency, waste of energy, and an unnecessary addition to our carbon footprint, because the light is spilling into the sky, rather than illuminating the ground where it is allegedly needed.

One response is to suggest that energy-efficient LEDs are used to replace (typically) low pressure sodium units. That sounds good, in theory, but in fact the blue wavelengths of LED light are more damaging to the environment than what they replace.

Glare

The eye adapts to particular levels of light. If it is presented with a light source appreciably brighter than the level to which it has become accustomed, then discomfort will result, with a loss of visual performance. All creatures with eyes are adversely affected by glare, but nocturnal creatures especially. High-intensity household security lights are a common source of glare.

Light spillage and trespass.

Light can stray from its intended purpose, becoming an annoyance because of glare or because of an unwanted contribution to ambient light levels. Light from a neighbour's uncurtained window or rooflight may spill out as an annoyance. Sports grounds and industrial installations may also prove to be unnecessarily intrusive. In many cases, such intrusions may constitute a statutory nuisance and lead to prosecutions, if pursued by the Local Authority.

Artificial light, road safety, and crime prevention.

Recent research based on the experience of local authorities which have cut down on street and highway lighting suggest that lowering levels of artificial light has had no discernible effect either on traffic safety or on levels of crime.

Advice about lighting

Of all the forms of pollution, light pollution is one of those most easily influenced and reduced by individual action. Reducing domestic light pollution can be achieved simply by switching lights off

Long Compton Parish Council always insists that any planning consent includes conditions to ensure conformity with the Dark Skies Policy.

What can we do?

- Turn off exterior lights – don't leave porch or security lights burning all night long. They waste energy and annoy the neighbours.

- Make sure that any exterior lighting is controlled by a movement sensor – it will then shine only when it's needed.
- Reduce spillage from windows and, particularly, from roof lights by using thick curtains or blackout blinds. Light-activated controls for roof light blinds are quite easy to fit.
- Design – use only external light fittings specifically designed to reduce spillage, and ensure that they are correctly fitted..
- Light only what you need – concentrate only on the features that you really need to see – trip hazards, steps or door locks.
- Use carefully directed lighting-use cones, shades, and appropriate aiming angles to ensure that light is directed to the ground, where it is needed.
- Don't use upward-facing ground lights to show where your drive is. They can confuse wildlife, and contribute to skyglow. Illuminated bollards are no better.
- Be careful about colour temperatures – LED lights are typically high. Aim for lights with a colour temperature of between 1750 and 3000 Kelvin. That will minimise the more harmful blue wavelengths.

Legislation

There is encouraging news from the Government, in the form of the All Party Parliamentary Group's *The APPG for Dark Skies 'Ten Dark Sky Policies for the Government'*.

<https://appgdarkskies.co.uk/policy-plan>

This initiative seeks to strengthen and update existing legislation, the better to protect our dark skies. It intends to address:

- the provisions of the National Planning Policy Framework;
- planning regulations controlling obtrusive light;
- the strengthening of Statutory Nuisance provisions dealing with nuisance lighting;
- strengthening the rules governing outdoor lighting and light spill

It seeks the creation of a Statutory Commission for Dark Skies, which would empower local authorities to enforce regulations, and the appointment of a Minister for Dark Skies..

The Policy Plan contains even more information. It is worth supporting.