

Dark Skies Herefordshire: Night-Time Walkabout Light Pollution Survey

Why are Dark Skies important?

Life on Earth has evolved over billions of years within the natural cycle of night and day. But humans have radically disrupted this cycle by lighting up the night, affecting flora, fauna, and human health. Darkness maintains the natural circadian rhythm and is vital for plants and animals to govern life-sustaining behaviours such as reproduction, nourishment, sleep, and protection from predators. Therefore, exposure to *Artificial Light At Night (ALAN)* has a negative impact on biodiversity and natural ecosystems. *Studies also reveal excessive exposure to ALAN* disturbs our sleeping patterns and increases the risk of heart disease, cancers, and depression in humans.

How do I carry out a Walkabout Survey?

If you're concerned about light pollution – consider carrying out a 'walkabout survey' on your property or join up with neighbours or your Parish Council to survey the local area to see if there's unnecessary light pollution in your community. This simple survey should be carried out between autumn and spring when external lighting is in use, and when it'll be darker earlier. Remember to keep a record of your survey!

Plan a route in the DAYTIME before you do your survey – it's important you consider your safety and wellbeing first. If you are conducting a survey in your community – do it with someone else! If surveying in rural areas – make sure you wear a hi-vis jacket to be seen and are safe to survey the area in the dark. Consider vehicles, people, and wildlife.

Please don't disturb the neighbourhood and don't go on to anyone's land without their permission. Have fun and enjoy the night sky and all its wonders!

Aim to collect the following information during your survey:

WHEN: Record the date and time and names of people carrying out the survey. Recording weather conditions and temperature is optional.

WHY: Brief description of the light pollution – what is the problem? e.g. is the light unnecessary or having a negative impact on a neighbour or wildlife?

WHERE: Location of the light pollution using What3Words or GPS.

WHAT type of light pollution:

- Sky glow where light shines upwards or brightens the night sky.
- Glare where the light source shines an uncomfortable brightness in a dark landscape.
- Light spill (or 'light trespass') is when light spills beyond the boundary of the area being lit.

HOW: What's the colour of the light pollution: Blue-white, White, Yellow, Orange or Red? Warmer colours have shorter wavelengths than blue-violet lighting so are less harmful.

The results of this survey can be used to help you reduce light pollution on your property or shared with your Parish Council or Local Authority.

What can I do to save money and reduce light pollution?

Before installing any external lighting: Ask yourself 'What is the purpose of the lighting?' 'Is the lighting necessary'? Consider the International Dark Skies Association's Five Principles for Responsible Outdoor Lighting and **Put the Right Light in the Right Place at the Right Time:**

- Use external lighting only where you need it e.g. for trip hazards, steps, or door locks.
- Turn off exterior lights, e.g. porch and security lights, if not in use. They waste energy and money and have a negative impact on the health of flora, fauna, and humans.
- Connect a movement sensor and hood to exterior lighting so they only turn on and shine where 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 relatively easy to fit.
- Avoid upward-facing ground lights and illuminated bollards for driveways because they can confuse wildlife and contribute to sky glow.

What can my Parish or Town Council do to conserve and enhance Dark Skies?


- Include a specific Dark Skies Policy in its Neighbourhood Development Plan.
- Include Dark Skies and mitigation for ALAN in their Environment and statutory Biodiversity Policy or Plans.
- Review their Street Lighting Plans to ensure they're in accordance with the Institution of Lighting Professional Guidance.
- Lead 'Night-time Walkabout Light Pollution Surveys' to identify key public sector or community buildings that have obtrusive lighting. Contact [Dark Skies Herefordshire](#) for more information.


What can my District or County Councils do to conserve and enhance Dark Skies?


- Have specific Dark Skies or Artificial Light At Night (ALAN) Policies in their Local Plan that outlines environmental zoning of lighting from E0 - Protected, E1 - Natural, E2 - Rural, E3 - Suburban to E4 - Urban (source: <https://darksky.org/resources/guides-and-how-tos/lighting-zones>).
- Include Dark Skies and/or ALAN Policies in their Landscape, Biodiversity, Built Environment, Climate Change, and Public Health policies in their Local Plan.






LIGHT TO PROTECT THE NIGHT

Five Principles for Responsible Outdoor Lighting







USEFUL	TARGETED	LOW LIGHT LEVELS	CONTROLLED	COLOR
 <p style="margin-top: 10px;">ALL LIGHT SHOULD HAVE A CLEAR PURPOSE</p> <p style="font-size: small; margin: 0;">Before installing or replacing a light, determine if light is needed. Consider how the use of light will impact the area, including wildlife and the environment. Consider using reflective paints or self-luminous markers for signs, curbs, and steps to reduce the need for permanently installed outdoor lighting.</p> <p style="font-size: 2em; font-weight: bold; margin-top: 10px;">1</p>	 <p style="margin-top: 10px;">LIGHT SHOULD BE DIRECTED ONLY TO WHERE NEEDED</p> <p style="font-size: small; margin: 0;">Use shielding and careful aiming to target the direction of the light beam so that it points downward and does not spill beyond where it is needed.</p> <p style="font-size: 2em; font-weight: bold; margin-top: 10px;">2</p>	 <p style="margin-top: 10px;">LIGHT SHOULD BE NO BRIGHTER THAN NECESSARY</p> <p style="font-size: small; margin: 0;">Use the lowest light level required. Be mindful of surface conditions as some surfaces may reflect more light into the night sky than intended.</p> <p style="font-size: 2em; font-weight: bold; margin-top: 10px;">3</p>	 <p style="margin-top: 10px;">LIGHT SHOULD BE USED ONLY WHEN IT IS USEFUL</p> <p style="font-size: small; margin: 0;">Use controls such as timers or motion detectors to ensure that light is available when it is needed, dimmed when possible, and turned off when not needed.</p> <p style="font-size: 2em; font-weight: bold; margin-top: 10px;">4</p>	 <p style="margin-top: 10px;">USE WARMER COLOR LIGHTS WHERE POSSIBLE</p> <p style="font-size: small; margin: 0;">Limit the amount of shorter wavelength (blue-violet) light to the least amount needed.</p> <p style="font-size: 2em; font-weight: bold; margin-top: 10px;">5</p>

Dark Skies Herefordshire aims to conserve and enhance dark skies across the rural landscape of Herefordshire, raise people's awareness of Artificial Light At Night (ALAN) and work with partners to inform the public of how ALAN negatively affects the health of plants, animals, and humans. It is a volunteer-led initiative that sits under Herefordshire CPRE (HCPRE). For more information, please contact volunteer@cpreherefordshire.org.uk.