

**Lighting Policy**

**Any new lighting proposal which may have an impact on a water body or green space in the borough should be accompanied by a statement to show that there will be no impact on any species that may be using that water body or green space. Or, if allowed, a statement should demonstrate how any impact will be mitigated. This statement may require evidence such as a bat survey. Post development monitoring may also be required or could be undertaken by members of the Kingston Biodiversity Network.**

The Royal Commission on Environmental Pollution, led by Sir J. Lawton (2009) reported the nuisance caused by badly designed lighting systems and the effects on nature and ecosystems of artificial light. The report stated that lighting could be removed from urban parks. The commission concluded that there was a need for government to recognise that artificial light in the wrong place at the wrong time is regarded as a pollutant which can harm the natural environment.

**‘We need a step-change in our approach to wildlife conservation, from trying to hang on to what we have, to one of large-scale habitat restoration and recreation, under-pinned by the re-establishment of ecological processes and ecosystem services, for the benefits of both people and wildlife’ Lawton.**

**These landscape scale approaches are necessary when considering lighting near to any green space. This is due to the way green spaces can function as corridors or stepping stones for wildlife, as well as the creeping nature of light pollution. This can travel unchecked through the environment, to create glare or skyglow as well as cause direct spillage, which interrupts both ecological process and function.**

**Designation**

All of Kingston’s rivers are important habitats for bats, with at least ten species recorded, and these rivers often have other designations, such as the River Thames being a ‘Site of Metropolitan Importance for Nature Conservation’. This designation is based on the presence of nearby areas of green space (especially where streams disappear into culverts) which contain features that provide roosting and foraging habitat, such as parkland or woodland. This includes the River Thames, Hogsmill OS, Beverley Brook, Bonesgate Stream and Tolworth Brook/Surbiton Stream.

However, these important habitats are at risk of degradation and fragmentation as a result of the constant pressure from development, with its associated lighting. Trees act as light ‘shields’ and their removal from the perimeter of any green space allows light to penetrate through to the core of the site. Floodlit sports pitches particularly have a radical impact on green spaces, especially those situated near to river corridors. Up-lighting of historic buildings, particularly churches, means that neither they nor the surrounding habitat can be used by animals or birds for roosting.

Wildlife

Bats are particularly dependant on ‘dark corridors’ for movement and require an urban gradient of less than 60% of built or lit surfaces, in order to move freely. Bats such as Daubenton’s use river corridors to move to their foraging areas and roost sites. Light pollution causes fragmentation of the corridors and inhibits the movement of such light-shy species because bat retinas are adapted for low light conditions. Insects form the basis of bat prey. They are also important for all bird species in order to feed their young. Insects can be attracted to light. Lamps with a high ultraviolet (UV) content can “hoover” up as much as 75% of the insects from a habitat. This is called the vacuum effect. Around one third of these insects will die

Guidance

The Institute of Lighting Professionals (ILP) states that lighting should be used when needed and where necessary. This means when employing lighting, a user who will benefit from the lighting should be identified and present when the lighting is on. **Where there is no user present – this is light pollution**.A key use of lighting is to improve security, but a blanket use of security lighting could lead to anti-social behaviour especially where there is no observer to see a breach of security.

This is a problem along waterways, as addressed by guidelines issued by the Metropolitan Police and British Waterways/Canal and River Trust (“Lock and Quay” report 2008) which states, ‘encouraging access to the waterway after dark may increase levels of criminal activity that would not otherwise occur. Lighting should be used to draw pedestrians away from urban watercourses at night’.

*From 1993 to 2000* ***light******pollution****in England increased by a quarter (26 per cent) and the amount of****light****-saturated night sky rose to 7 per cent. Councils spend a collective £532 million on street****lighting****each year and the****lights****can account for around 5-10 per cent of a council’s carbon emissions.* [*http://www.cpre.org.uk*](http://www.cpre.org.uk)

Further info

<http://www.batsandlighting.co.uk/>

<http://www.lbp.org.uk/downloads/Publications/Management/lighting_and_bats.pdf>

<http://www.bio.bris.ac.uk/research/mammal/bats.html>

<http://www.bats.org.uk/pages/bats_and_lighting.html>

<http://www.furesfen.co.uk/bats_and_lighting.pdf>

<http://wrg.co.uk/uploads/article948/Bat%20Report%20Appendix%20C.pdf>

<http://www.britastro.org/dark-skies/>

[www.cpre.org.uk](http://www.cpre.org.uk/)

[http://www.rcep.org.uk/reports/sr-2009-**light**/documents/RCEP\_artificial**light**.pdf](http://www.rcep.org.uk/reports/sr-2009-light/documents/RCEP_artificiallight.pdf)

<http://www.cpre.org.uk/what-we-do/countryside/dark-skies/in-depth/item/1676-light-pollution-maps-where-you-live>