

Proposed lighting options on the Warren Footpath

Introduction:

The Warren Footpath runs adjacent to the River Thames from Richmond Bridge to Orleans Road in Twickenham; it runs past Cambridge Gardens and Marble Hill Park, ending just past Hammerton's ferry. It is a popular route for pedestrians and cyclists during the day. It is also a very important habitat for bats. Richmond is nationally important for bats with 8 of the 17 UK bat species being recorded in the borough.

Current lighting:

The current lighting along the Warren Footpath is outdated, non-uniform and inefficient. It creates pools of light with long stretches of darkness between lamp columns which makes the area feel unsafe. In addition to this a large amount of light is lost to the atmosphere and onto the river as light pollution.

Proposal for new lighting

Biffaward and the Heritage Lottery Fund are proposing to fund either the removal or upgrade of the lighting along the towpath. This is primarily to improve the area for bats, but also provides the opportunity to improve the lighting generally. The new lighting will be using LEDs (light emitting diodes) which will reduce light pollution, improve visibility, have a longer lifespan and reduce energy consumption.

This document outlines the advantages and disadvantage of three possible lighting options:

Option One - leave the lights as they are

Option Two - remove all the street lights and do not replace

Option Three - install new lighting

Background

Usage of the area by people and bats

The number of people using the Warren Footpath has been monitored since June 2008. The results below show the average number of pedestrians using the footpath each hour from June through to December 2008.

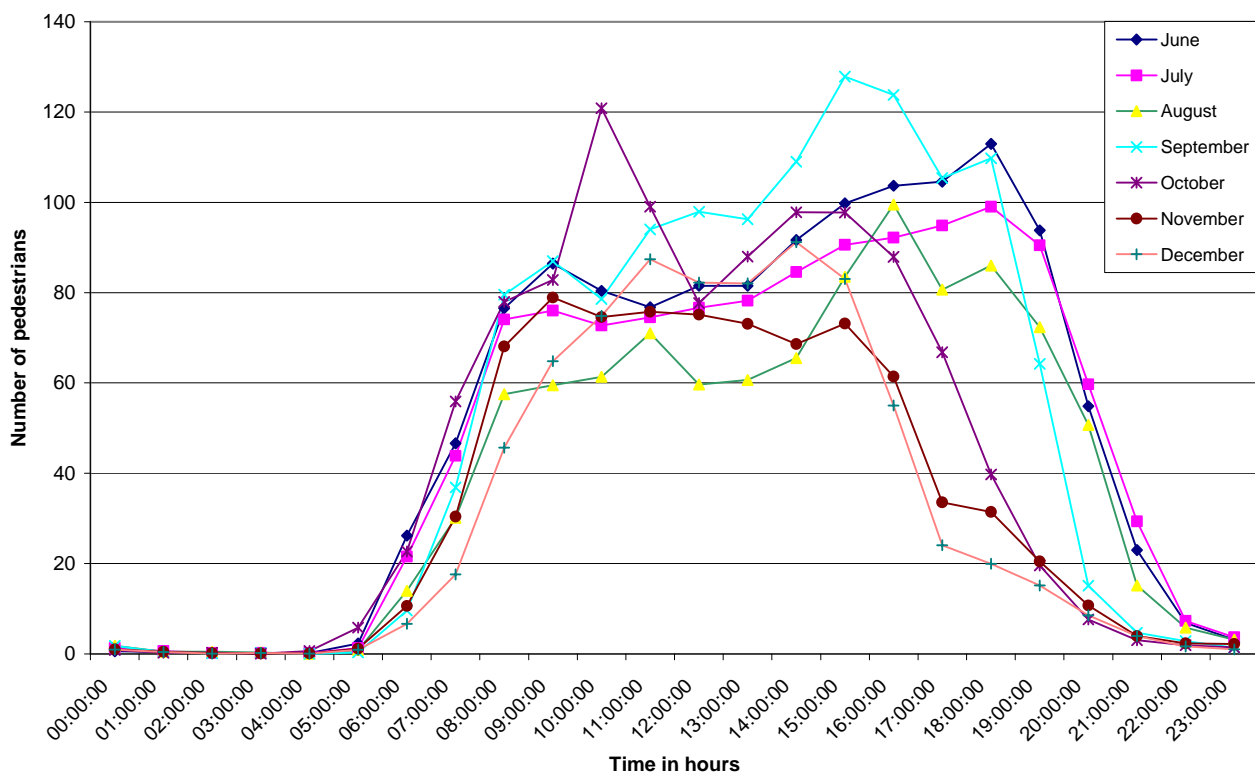


Figure 1 showing the average number of pedestrians using the Warren Footpath every hour during from June to December 2008.

Figure 1 shows that from 11:00pm to 5:00am the footpath is virtually unused by pedestrians yet the street lights are on throughout the night. The numbers of cyclists using the footpath was recorded separately; the results showed a similar pattern to pedestrian usage but numbers are significantly lower.

Bats:

There are 17 species of bat in the UK, all of which are protected by law due to their dramatic decrease in numbers over recent years. Bats have adapted to avoid predation by being nocturnal, for this reason bats avoid lit areas and most will not fly into areas of light. Some species will not emerge from their roosts until light levels are low enough. The Ham Reach of the Thames by the Warren Footpath is known as a critical habitat for bats.

Consultation Options:

There are 3 proposals on the lighting issue of the Warren Footpath, listed below are the details of each proposal with advantages and disadvantages for each one.

Option 1 - Leave lights as they are:

- Do nothing and leave the lights as they currently are.

Advantages:	Disadvantages:
It is the option which is easiest to achieve as involves the least Council resources.	The light emitted would remain inefficient with pools of light and long sections of darkness.
	The existing lights give a false sense of security as a well lit and safe footpath when it is in fact isolated and poorly lit not meeting any British Standard.
	The existing streetlights emit high levels of ultraviolet light which is detrimental to bats.
	The levels of light pollution would remain high.
	The lighting fixtures are poorly sited, aesthetically unpleasant and an imposition to views from Richmond Hill and Marble Hill House.
	The existing lights emit an orange light (sodium) which is difficult for people to recognise faces.
	At some point in the future the street lights will have to be removed or updated at a considerable cost.

Option 2 - Remove all street lights:

- All lights along the Warren Footpath will be removed and not replaced.

Advantages:	Disadvantages:
The character and aesthetics of the footpath in the day time would be improved.	Some people will be deterred from using the footpath at dusk and after dark if it is not lit.
It would save energy and reduce costs through reduced maintenance and electrical costs.	Some people will feel uncomfortable if the footpath is not lit.
This would enhance the area for bats increasing the dark habitat available for foraging and commuting.	

Option 3 - Install new lighting:

- All existing lighting columns will be removed.
- New columns will be installed at a uniform distance apart.
- Positioning of the columns will be done with sensitivity to views such as that outside of Marble Hill House.
- The new street lights will contain LEDs (Light Emitting Diodes).
- The lights can be turned off or dimmed down during less busy times of the night and Intelligent Lighting Technology will be used to turn the lights on through human movement. The lights will be sensitive enough not to be triggered by weather, movement of vegetation or wildlife.



Figure 2 Showing current street lights on the Warren Footpath. Note non uniformity of lights and placement in the middle of the footpath.



Figure 3 Showing proposed LED lighting will be uniform and placed at the edge of the footpath.



Figure 5 showing proposed lighting as used at a site in Europe.

Advantages:	Disadvantages:
The improved lighting will focus light where it is needed and remove it from areas where it is not needed thus reducing light pollution.	There will be more light columns than the current arrangement which will impact some aesthetics by daylight in particular.
LEDs are a more sustainable light source as they have a longer life span requiring less maintenance in addition to using less energy. There are obvious cost benefits to this.	
The Metropolitan Police support this option as the best one for public safety.	
The project is fully funded so there is no cost to the Council to install these LED lights if the works are completed by Autumn 2009.	
The technology will turn the lights on when triggered by human movement so a lit footpath will be available for those who wish to use the footpath at night.	
Reduced light pollution and having the streetlights switched off for large periods of the night (when people are not using the footpath) will increase the available habitat for bats as well as save energy and reduce costs.	
LEDs emit a white light which is better for facial recognition than other light sources.	
The LED lights have no ultraviolet light which is better for bats.	

The three lighting options have been reviewed by leading bat experts and the conclusions are as follows:

- Option One - leave the lights as they are - is the worst outcome for bats.
- Option Two - remove all the street lights and do not replace - is the best solution for bats.
- Option Three - install new lighting - will be an improvement of the area in terms of bat habitat.

A report detailing the research and findings of this project is available on request or can be downloaded from London's Arcadia website – www.londons-arcadia.org.uk

Public consultation on the proposed works will start on Thursday 19th March 2009 and end at 5pm on Thursday 9th April 2009.

The public are invited to view an example of the LED lighting and column which is positioned between light columns 009 and 010 at the Richmond Bridge end of the Warren Footpath near Cambridge Gardens. The trial lighting does not include Intelligent Lighting Technology and therefore will be permanently on at night.

Copies of the proposed plans and more information are available at Richmond Reference Library, LBRuT Civic Centre and online at www.londons-arcadia.org.uk or by telephone at 020 8891 7309.

All comments on the proposed works must be received by 5pm, 9th April 2009 by email at:

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