

# Bats and Lighting Precautionary working method statement

## **Vyrnwy reserve, Montgomery Canal**

#### Introduction

The scheme is to construct an open water reserve (comprising two backwater features with constructed bar features, chute channels and island) connected to the River Vyrnwy, which over time will allow associated wetland habitat to develop. Excavated soil will either be used as part of adjoining landscaping/slope stability works or taken off site for disposal.

The Ecological Impact Assessment (Habitat Works – Ecological Impact Assessment Report, April 2025) highlights that there are no roosts on site, or adjacent to the site, and therefore no likely loss of bat roosts from the works. However, the river and canal corridors and connecting habitat such as hedgerows are of high importance for bats, therefore it recommends a precautionary approach should be taken with lighting. Bats are protected species and lighting can severely impact their feeding and movement across the landscape. The project is expected to increase the amount and quality of habitat for bats at the site in the long term.

### Lighting considerations

Lighting only has the potential to cause disturbance to bats during the construction phase. There is no proposed lighting as part reserve design.

For security reasons there will be a need for some monitoring of the compound and the equpiment and materials contained. Until the Contractor is assigned the specific measures proposed are not confirmed. However, there are options for security that can minimise the risk to bats and these are detailed below.

#### Measures required to inform the Contractor's security arrangements

#### **Avoidance**

- Conserve dark areas. Light only where and when needed. Any lighting scheme to be agreed by CRT Ecological Clerk of Works (ECoW).
- Do not illuminate habitats and features that could be used by bats such as the canal, river, trees, woodland and hedgerows.
- No lighting of the canal corridor, river corridor and working area during the bat active period from beginning of April to end of October.
- Position the site compound away from any features of importance for roosting or foraging bats, such as trees, hedgerows and the river.

#### Mitigate

- First option will be to use alternative methods if appropriate, such as infrared cameras to avoid the need for lighting across the whole compound.
- If lighting is required for people in the compound, this will only be where specifically needed like walking routes and accesses.
- External security lighting will be set on motion sensors and set to as short a time as possible / as the
  risk assessment will allow.

**Commented [JS1]:** Depends on two oak trees on embankment

- Keep illuminance levels as low as possible for the task required. Use LED lights that have a 'warm
  white light' (e.g. 2700Kelvin or lower) as this will reduce blue light component that is damaging to
  bats.
- Only use lights with a negligible or zero Upward Light Ratio, and with good optical control.
- Place lights at the correct height and directed at where it is needed, i.e. downwards, not across the site
- Do not direct lights at structures which can reflect light back, so can also induce significant upward light emissions and hence light pollution.

At present the location of the compound will be on the land, close to where the temporary access track will enter the field. The site will be adjacent to habitat features (a hedgerow; or the canal and canalside hedgerow). This presents a risk to commuting and feeding bats. However, the compounds will be offset from the features by at least 3m, ideally further. The above avoidance and mitigation measures will reduce any risk. As the contractor is agreed, any lighting scheme for the proposed compound (where it might be placed) will be developed and agreed with the Ecological Clerk of Works.

#### **CONTRACTORS - WHAT TO DO IF YOU DISCOVER A BAT ONSITE:**

- 1). Stop all works in the area immediately;
- 2). Immediately inform the supervising ecologist for further advice; and
- 3). Do not recommence works until given clearance by the supervising ecologist.

#### **CONFIRMATION:**

Please sign to confirm you have received the toolbox talk and understand the Precautionary Working Methods to be implemented.

Date	Name	Signature