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19<sup>th</sup> December 2023

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Dear Luke,

## LAND WEST OF PAGHAM ROAD, PAGHAM – ECOLOGY WORK TO DISCHARGE CONDITION 10

Following the granting of the Appeal for the proposed development at Land west of Pagham Road (Appeal Ref: APP/C3810/W/22/3302023), FPCR were instructed to undertake update surveys for badger, water vole and hedgehog in 2023 to discharge Condition 10 which states:

*"No development, including site access or associated construction activities, shall commence unless and until the site has been re-surveyed for water voles, badgers and hedgehogs. If water vole or badgers (or a badger sett) are found to be present, then an appropriate mitigation strategy shall be provided to the local planning authority for approval in writing prior to commencement of development. Any hedgehogs that are found to be present shall be relocated away from the construction area into surrounding suitable habitat."*

### METHODOLOGY

#### Badger Survey

Badger surveys were undertaken on 29<sup>th</sup> May 2021 to inform the planning application and 19<sup>th</sup> May 2023 after the Appeal decision by suitably experienced FPCR ecologists. Standard methodology<sup>1</sup> was followed to complete a thorough search for evidence which would indicate the presence of badgers both on the site and within the immediate proximity, including the identification of:

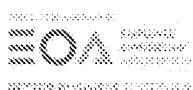
- Setts: including earth mounds, evidence of bedding and runways between setts – status and level of activity are noted.
- Latrines: often located close to setts, at territory boundaries or adjacent to favoured feeding areas.
- Prints and paths or trackways.
- Hairs caught on rough wood or fencing.
- Other evidence: including snuffle holes, feeding and playing areas and scratching posts.

<sup>1</sup> Cresswell, P., Harris, S. & Jefferies, D.J. 1989. Surveying Badgers. The Mammal Society Publication No. 9 Mammal Society

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## Water Vole Survey

Presence/absence water vole surveys were undertaken on 28<sup>th</sup> May and 20<sup>th</sup> September 2021 to inform the planning application and on 19<sup>th</sup> May 2023 by experienced FPCR ecologists during suitable conditions, in accordance with guidance<sup>2,3</sup>. Evidence of water vole activity was searched for within 5m of the banks of waterbodies and any suitable habitat, including ditches, including:

- *Water voles* – live sightings.
- *Latrines* – distinct piles of water vole droppings found near nest sites, at the ranges of territorial boundaries and where the animals enter and leave the water. The presence of droppings is the only field sign which can be used reliably on its own.
- *Burrows* – burrow entrances are typically wider than high with a diameter between 4 and 8cm. Generally, these burrow entrances are located at the water's edge.
- *Feeding stations* – areas with distinct neat piles of chewed lengths of vegetation along pathways or haul out platforms along the water's edge.
- *Footprints* – identifiable prints in soft margins of the watercourse.
- *Runways* – low tunnels that are pushed through the vegetation and often leading to burrows or feeding stations.
- *Nest balls* – woven vegetation of approximately the size and shape of a rugby ball, usually found within a tuft of vegetation above the water line.

## Hedgehog Survey

Potential hedgehog habitat such as leaf litter piles and log piles were hand searched on 19<sup>th</sup> May 2023 by suitably experienced ecologists from FPCR to identify any live hedgehogs or droppings on site.

Three Bushnell motion-detector trophy cameras (Prime Low Glow) were installed to record between 19<sup>th</sup> – 31<sup>st</sup> May 2023 in vegetated areas around the site considered to have the highest potential to record hedgehogs and badgers. The cameras were set to detect motion at night, recording a 10 second video clip when triggered.

## RESULTS AND DISCUSSION

### Badger

Hedgerows, scrub, grassland and certain crops provide suitable habitats for foraging and commuting badgers. No evidence of setts or other badger signs were found on site during any of the 2021 surveys or on 19<sup>th</sup> May 2023.

One of the cameras in the north-west of site recorded a single badger on 19<sup>th</sup> May 2023 only. This indicates that the site is being utilised by badgers to a low extent for commuting or foraging.

During construction, the following precautionary measures are recommended:

- Any pipes greater than 250mm in diameter will be capped overnight, thereby preventing badgers and other wildlife from becoming trapped.
- Any pits or trenches that cannot be back filled will be covered overnight, or left with a suitable means of escape, e.g. a stout timber plank forming a ramp.
- Careful consideration will be given to the location of topsoil storage mounds that can readily become used by badgers for the creation of new setts.

<sup>2</sup> Dean, M., Strachan, R., Gow, D & Andrews, (2016) The Water Vole Mitigation Handbook. The Mammal Society Guidance Series. Eds F. Matthews & P. Chanin. The Mammal Society, London.

<sup>3</sup> Dean, M. (2021) *Water Vole Field Signs and Habitat Assessment: A Practical Guide to Water vole Surveys*, Pelagic Publishing

- Operations shall be restricted to daylight hours as far as practicable to minimise the potential for adverse impacts to badger (and other nocturnal and crepuscular wildlife including hedgehogs) through disturbance.

Although no setts were present within the site boundary at the time of the survey on 19<sup>th</sup> May 2023, badgers are known to occasionally use the site because of recording of the single badger on one of the camera traps. The lack of field signs such as snuffle holes and latrines, suggest they only use the site minimally. Badgers should however be a consideration when enhancing the site for wildlife:

- Hedgerows and boundary features are being retained to maintain connectivity to the wider landscape.
- Proposed tree and shrub planting around the peripheries of the site will benefit a range of species including badger.

If a potential or suspected badger sett is identified at any time during works on site, an ecologist should be contacted immediately for advice.

#### Water Vole

The on-site ditches are of poor quality for water voles due to the limited levels of water present. No evidence of water vole was recorded during any of the field surveys conducted in 2021 or on 19<sup>th</sup> May 2023, which is consistent with the poor quality of available habitat. On this basis, it is considered reasonably likely that water vole are absent from the site.

However, a single water vole was observed during a GCN eDNA survey on 29<sup>th</sup> April 2021 in D5 outside the site boundary.

To encourage the expansion of this species into the on-site watercourses, the ditches will be enhanced to provide suitable habitats to support and sustain a population. This includes the following measures:

- Widen and deepen existing channels so that they retain water and provide suitable banks for burrowing.
- Plant suitable native riparian plants to provide food sources and cover for water voles.
- A suitable buffer between the ditches and development as provided by the green infrastructure. In addition, any footpaths should be created 5-10m from the ditch edges.

#### Hedgehog

Hedgerows, scrub and grassland on site provide foraging and commuting opportunities for hedgehogs with connectivity to the wider landscape.

No evidence was identified during surveys in 2021, including the nocturnal bat surveys when they are most active. No hedgehogs were identified during the survey on 19<sup>th</sup> May 2023, and none were recorded on any of the camera traps between 19<sup>th</sup> May – 31<sup>st</sup> May 2023 inclusive.

Owing to the lack of evidence of hedgehogs on the site, they are not considered a constraint to the development. Nevertheless, as they are known to be present in the local area, they have been considered when enhancing the site for wildlife:

- Hedgerows and boundary features are being retained to maintain connectivity to the wider landscape.
- Any new fences to be installed will feature 'hedgehog highways' formed by a 13cm x 13cm hole along the base. This will ensure connectivity is maintained through the site.
- Log and/or rubble piles positioned in close proximity to SuDs and/or areas of grassland and scrub will benefit a range of species including hedgehogs.

**CONCLUSION**

We consider that the above surveys and associated reporting are sufficient to discharge Condition 10 of Appeal Ref: APP/C3810/W/22/3302023 for the Land West of Pagham Road, Pagham site. Please do not hesitate to contact us if you wish to discuss anything further.

Yours sincerely,

[REDACTED]

**Laura Mynard**  
Ecologist  
FPCR Environment and Design Ltd

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