

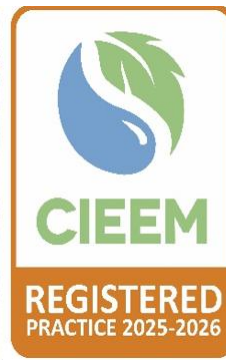
Arborfield STW

Wood Lane, Barkham, Wokingham



Ecological Technical Note

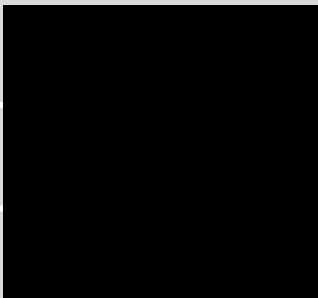
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1 Introduction & Methodology

1.1 BACKGROUND

Maydencroft Limited was commissioned by Glanua to undertake an Ecological Walkover on Site at Arborfield STW. The walkover was required to assess the potential ecological constraints affecting the enabling works prior to further development works on Site.

1.2 PREVIOUS SURVEYING

Mott MacDonald were commissioned by Thames Water to undertake a Preliminary Ecological Appraisal (PEA) of the Arborfield STW to support a Stage Gate 1 Review of Thames Water Capital Delivery Stage Gate Process. As such, when the survey was conducted, no detailed plans for the proposed development were provided.

A desk study was undertaken, alongside a site survey, undertaken on 14th October 2025.

1.3 FIELD SURVEY

The site survey involved a site survey which was undertaken on 3rd March by Alice Salisbury, Principal Ecologist of Maydencroft Limited. The weather during the survey was mild with limited wind and cloud cover.

An assessment of the habitats present within areas of interest on Site were undertaken, where enabling works are required prior to the main works, which will require planning approval. The areas of interest are highlighted in Figure 1 below.

Alongside the habitat survey, a walkover inspection of these areas was undertaken to assess their potential to support protected and important species.

No detailed species-specific surveys were undertaken at this stage, instead habitat suitability and potential presence were assessed based on field observations, ecological expertise and contextual desk study data.



Figure 1: Boundary of areas surveyed during 2026 update survey

2 Results

The below results section summarises the results of Mott MacDonald's report from November 2025 and the results of the updated ecological walkover for enabling works undertaken by Maydencroft Limited in March 2026.

The results are supported by in-text maps (a full habitat map can be found within Mott MacDonald's PEA report) and site photographs.

2.1 DESIGNATED SITES

Longmoor Bog Site of Special Scientific Interest (SSSI) falls 1.82km to the southeast of the Site and the Site falls within the SSSI Impact Risk Zone (IRZ).

2.2 HABITATS

The Mott MacDonald's PEA (November 2025) describes the Site to be comprised of other neutral grassland, modified grassland, mixed scrub, bramble scrub, lines of trees, native hedgerows, a ditch, buildings and other developed land.

The habitats identified on Site during the updated survey are identified in Figure 2 and described below.



Figure 2: Habitat map of surveyed areas

2.2.1 Dense scrub (h3)

An area of dense scrub, dominated by bramble (*Rubus fruticosus*) and willow (*Salix spp.*) is present within an area of old settling beds with two concrete tanks. The area is what remains of the larger sludge/drying beds (see 2.2.2) which have previously been cut back. The vegetation is dense and uniform in age.



Figure 3: Dense scrub within old bed

2.2.2 Bare ground (u1b6, 510)

The vegetation has previously been removed, within the last month, from two old sludge/drying beds. The habitat previously present within this area, is considered to be dense scrub, as described in 2.2.1. The habitat now currently present is predominantly bare ground comprised of media rock which continue to 1.5m where they meet a concrete bed.



Figure 4: Bare ground where vegetation has previously been removed

2.2.3 Ruderal vegetation (g3c, 81)

A large mound of rubble which has been recently cut back is present on Site. The mound is comprised of rubble, stones, site debris and soil. The area has recently been removed of scrub. This has allowed ruderal vegetation to grow through whilst retaining many areas of bare ground and moss-covered ground.

The mound is now comprised of nettles (*Urtica dioica*), cleavers (*Galium aparine*), lords and ladies (*Arum maculatum*), lesser celandine (*Ficaria verna*), germander speedwell (*Veronica chamaedrys*), bramble (*Rubus fruticosus* agg.), cow parsley (*Anthriscus sylvestris*), burdock (*Arctium minus*), bristly oxtongue (*Helminthotheca echioides*), ribwort plantain (*Plantago lanceolata*), and broadleaved dock (*Rumex obtusifolius*).



Figure 5: Ruderal vegetation on mound present on Site

2.2.4 Building (u1b5)

A flat roofed brick-built building set into the ground is present on Site. The building is approximately 2m height and 7m wide. The building has a smashed window on the southwest elevation and an elder growing from the northern corner. The windows on the southeastern elevation have wooden frames, which are coming away from the brick of the building. Double doors are present on the western elevation, one of which is permanently open. Internally the building is very damp and dirty with Thames Water infrastructure present.



Figure 6: Building present on Site

2.3 SPECIES

The habitat suitability, direct/indirect evidence and likelihood of occurrence of protected and important species considered likely to be present on Site is summarised in the sections below.

Mott MacDonald scoped out a notable terrestrial invertebrate assemblage within the Site. This report is considering the enabling works only. As such, species scoped in within the initial survey by Mott MacDonald, who surveyed a much larger area, may be scoped out within this report. The habitats likely to be impacted by the enabling works are not considered suitable for hazel dormice (*Muscardnius avellanarius*), otters (*Lutra lutra*) or water vole (*Arvicola amphibius*). As such, they are not discussed further within this report.

2.3.1 Amphibians

The Mott MacDonald report details that two ponds are located within 500m of the Site; 400m and 470m to the south of the Site. However, both ponds are located south of the Barkham Brook, which is considered a barrier to movement for great crested newts (GCN).

Great crested newts (GCN) breed in still or slow-flowing freshwater bodies such as ponds, ditches or small lakes and reside in terrestrial habitats for the remainder of their life cycle. GCN favour terrestrial habitats which provide foraging, shelter and hibernating opportunities within 250 – 500m from breeding ponds (Cresswell and Whitworth, 2004).

The habitats assessed on the updated survey, are of some suitability for amphibians as they provide rubble for sheltering and mixed habitats for foraging. The Site is divided from the ponds in the locality by several roads, housing and arable fields. As such, it is considered highly unlikely that GCN would utilise the habitats to be disturbed for the enabling works.

2.3.2 Bats

2.3.2.1 Foraging and commuting

The Site and its surrounding landscape offer features of moderate suitability for foraging and commuting bats. Habitats such as hedgerows, tree lines, woodland edges, grassland and waterbodies support a range of invertebrate prey species and provide linear features that bats use for navigation and movement between roosting and feeding areas.

2.3.2.2 Roosting

The Mott MacDonald report details two buildings (B1 and B2) and three trees (TN1, TN2, TN3) as being suitable for roosting bats.

The updated survey identified another building, not considered within the initial report. The building is described

in 2.2.4. The internal of the building provided no suitability for roosting bats as the ceiling and walls are lined and no cracks/crevices are present. However, externally, gaps around the window frames on the southeastern elevation provide suitability for roosting bats. Three of these features were identified on the building and therefore, the building is considered to be of **low suitability for roosting bats**, as a number of small features were identified.



Figure 7: Example of potential roosting feature within building on Site

2.3.3



2.3.4 *Nesting birds*

The dense scrub present on Site and to be impacted by the enabling works are considered suitable for nesting birds. In addition, suitable foraging habitat is present in the form of seeds and invertebrates. As such, it is considered likely that nesting birds are present on Site during the breeding season (March-August, inclusive).

2.3.5 *Hedgehog*

Hedgehogs (*Erinaceus europaeus*) are commonly associated with gardens, parkland, rough grassland, woodland edges, hedgerows and scrub where food, shelter and movement corridors are available. Hedgehogs are declining in number, however, are still widespread and can travel 1-2km per night searching for food and mates with a home range of 10-20ha.

It is considered that hedgehogs may utilise the habitats present on Site for foraging and commuting. However, the habitats on Site provide limited suitability for sheltering hedgehogs. The rubble within the mound is considered too compact to provide enough room for a sheltering hedgehog.

2.3.6 *Reptiles*

Reptiles favour heterogeneous habitats that provide open, sunny areas for basking, dense vegetation for cover and suitable prey resources. Areas with refugia such as log, rubble piles or tussocky vegetation are preferred as they also provide sheltering and hibernation opportunities.

The dense scrub, bare ground and ruderal vegetation all provide suitability for reptiles on Site. In the wider Arborfield STW, further suitable habitats for reptiles are present. In

addition, the habitats surrounding the STW provide some suitability for reptiles in the form of grassland, arable field edges and areas of woodland/scrub. As such, it is considered that reptiles may be present on Site.

3 Evaluation

The below evaluation is based on the enabling works only. It is highly recommended that another Preliminary Ecological Appraisal, likely followed by Phase II surveys and an Ecological Impact Assessment is conducted prior to any main works commencing.

3.1 DESIGNATED SITES

The enabling works will not require any further assessment of impacts to designated sites, due to their small scale.

3.2 HABITATS

The enabling works have resulted in a loss of scrub/ruderal vegetation and will result in further loss of similar habitats, to facilitate the main works.

3.3 SPECIES

Although bats are likely to use the Site for foraging and commuting, the proposed enabling works are not expected to significantly affect these activities. Therefore, no adverse impacts are anticipated.

The proposed development has the potential to impact the following species:

- Roosting bats during the demolition of building
- Foraging and commuting [REDACTED] hedgehogs during vegetation removal
- Nesting birds during vegetation removal and building demolition

- Foraging, commuting and sheltering reptiles during vegetation removal

4 Recommendations

The habitats lost to facilitate enabling works are not considered ecologically significant and therefore, no mitigation measures are required. However, Thames Water have a commitment to ensuring No Net Loss on their projects. As such, habitat loss should be compensated sufficiently, utilising the Statutory Metric.

4.1 FURTHER SURVEY

The additional building should be subject to one emergence survey, as per best practice guidance for buildings with low suitability for roosting bats. It is considered that this can be conducted alongside the further surveys recommended for B1 and B2 in the Mott MacDonald report.

The results of the survey to the additional building, B1 and B2 will determine the mitigation measures required prior to demolition.

4.2 MITIGATION AND COMPENSATION

The mitigation hierarchy has been utilised throughout to ensure the best outcomes.

4.2.1 Roosting bats

Further surveys for roosting bats in trees have been recommended within the Mott MacDonald report. However, the trees are outside of the scope for the enabling works. Therefore, it is considered that these further surveys are not required and a 10m buffer should be retained around the trees, to ensure no disturbance throughout the works.



Figure 8: 10m buffer around three trees detailed as containing potential roosting features

4.2.2 [REDACTED] hedgehogs

Any excavation within the sludge beds and movement of soil within the mound should be made safe each night or fitted with escape ramps (e.g. a plank at no steeper than a 30° angle).

Any fencing required around the working area should be designed to allow the movement of [REDACTED] other species through the site and into the wider area.

4.2.3 Nesting birds

The area of dense scrub to be impacted should first be checked for active nests by an ecologist or other suitably qualified individual. If nesting activity is identified, certain aspects of work in the vicinity of the nest will need to cease

until the birds have finished nesting and the young have fledged.

4.2.4 *Reptiles*

The vegetation and removal of soil from Site have the potential to impact sheltering reptiles. To reduce the likelihood of reptiles being killed/injured or becoming entrapped during the works, the following measures are recommended:

- Vegetation removal must be undertaken during the active season (March – September inclusive)
- Areas of dense rubble and debris should be carefully removed by hand or with small machinery to ensure that any reptiles potentially sheltering underneath can escape
- If any reptiles are identified during vegetation clearnace, all works should cease and the Ecologist called for advice.