FORMER ARBORFIELD STUDIOS (PARCELS W, Y AND Z), ARBORFIELD GREEN

ECOLOGICAL IMPACT ASSESSMENT (EcIA)

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QUALITY ASSURANCE

This report has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Report Writing (2nd Edition, December 2017).

The facts stated in this report are true to the best of our knowledge and belief, and any opinions expressed are held genuinely and in accordance with the accepted standards of the profession. ACD Environmental Ltd is a CIEEM Registered Practice.

Client:	Crest Nicholson
Site/job:	Former Arborfield Studios (Parcels W, Y and Z), Arborfield Green
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PRACTICE 2026-2027

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1 EXECUTIVE SUMMARY

Purpose of report	To provide an assessment of the ecological impacts of a proposed development at Former Arborfield Studios (Parcels W, Y and Z), Arborfield Green, based on the surveys carried out to date. This will clearly identify any 'significant effects' on important ecological features (including designated sites or protected species) and detail any mitigation and/or compensation measures that are required, and how these could be secured. This report outlines likely impacts and potential mitigation or compensation solutions. Enhancement measures are also recommended.
Description of proposed development	The Application Site is part of a hybrid planning application (O/2014/2280) comprising: *Full planning application for the demolition of existing buildings and construction of new homes, together with creation of accesses, parking, green infrastructure (including landscaping, public open space, play areas), associated drainage, roads, substations, plant, bin and cycle storage and other related infrastructure works.* *Outline planning application (all matters reserved except for access) for the construction of up to 2 new homes including through the retention (of whole or part) and conversion of the existing Langley Common Farmhouse.*
Brief description of the Site	The Application Site is located within the village of Arborfield Green, with a survey area of approximately 13.1 ha, and includes three large filming stages, office buildings, workshops, and backlots; additional buildings, hardstanding, and areas of greenspaces are also present across the Application Site. Two parcels of Ancient & Semi-natural Woodland were identified adjacent to the Application Site; additionally, a large section of the woodland on-site was identified as a 'deciduous woodland' Habitat of Principal Importance. The Ordnance Survey Grid Reference for the centre of the site is SU 77087 66193.
Designated nature conservation sites	The Application Site also lies within the Impact Risk Zones and within the 5km zone of influence for major developments of the Thames Basin Heaths Special Protection Area (SPA) and Longmoor Bog SSSI.
Key habitats	The most valuable habitats present within the Application Site comprises of 'deciduous woodland' Habitat of Principal Importance and the native hedgerow and ponds.
Key species	The Application Site has potential to support reptiles, roosting birds, commuting and roosting bats, [redacted] hedgehogs and other mammals.
Key impacts	In the absence of mitigation, removal of habitats/ vegetation could lead to accidental disturbance or injury/killing of protected species.

Mitigation	Great crested newt- Naturespace Licence. Bats, EPSL-as roosting bats have been found using building B9, B19 and B4. Reptiles- Precautionary clearance or translocation exercise.
Compensation	Thames Basin Heaths (SPA) and Longmoor Bog (SSSI)- Provision of a SANGS to reduce the potential increase in visitors and associated recreational pressure.
Enhancements	Woodland, hedgerows and ponds- Retained/enhanced/new habitat creation. Removal of invasive species, Management measures e.g. regular litter picks and pollution prevention.
Conclusions	The ecological mitigation and enhancement measures outlined in this report comply with Section 19, N1-N6 of the NPPF, and Policy CP7, CP8 of the Wokingham Borough Council Core Strategy and TB23 of the Managing Development Delivery (MDD) Local Plan.

2 INTRODUCTION

2.1. This report provides an assessment of the ecological effects of the proposed development of an area of Former Arborfield Studios (Parcels W, Y and Z), Arborfield Green hereafter referred to as the Application Site (see **Image 1**). The principal author of this report is Jake Cranston. The client is Crest Nicholson Operations Limited.

Background

2.2. The Application Site is located within the village of Arborfield Green, with a survey area of approximately 13.1 ha, and includes three large filming stages, office buildings, workshops, and backlots; additional buildings, hardstanding, and areas of greenspaces are also present across the Application Site. Two parcels of Ancient & Semi-natural Woodland were identified adjacent to the Application Site; additionally, a large section of the woodland on-site was identified as a 'deciduous woodland' Habitat of Principal Importance. The Ordnance Survey Grid Reference for the centre of the site is SU 77087 66193.

2.3. The Application Site is part of a hybrid planning application comprising:

Full planning application for the demolition of existing buildings and construction of new homes, together with creation of accesses, parking, green infrastructure (including landscaping, public open space, play areas), associated drainage, roads, substations, plant, bin and cycle storage and other related infrastructure works. Outline planning application (all matters reserved except for access) for the construction of up to 4 new homes including through the retention (of whole or part) and conversion of the existing Langley Common Farmhouse

Competence

2.4. This report has been written by Jake Cranston, Ecologist at ACD Environmental. Jake has undertaken various surveys, ranging from Habitat Surveys to Phase 2 surveys for protected species, including bats, [redacted] and dormice. Jake has written various reports, including [redacted] and Landscape and Ecological Management Plans. Jake has a Great Crested Newt and Dormouse Licence issued by Natural England. and is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

2.5. The Technical Review was undertaken by Lisa Durrant, Senior Ecologist at ACD Environmental Ltd who has over 15 years' experience and has been involved in a wide range of ecological projects including extended Phase 1 Habitat Surveys, Phase 2 surveys for protected species and European Protected Species (EPS) licence applications. She is a full member of CIEEM (MCIEEM) and holds Natural England Class licences to survey for bats, barn owl *Tyto alba*, dormouse *Muscardinus avellanarius* and great crested newt *Triturus cristatus.*

Purpose of the report

2.6. The purpose of this Ecological Impact Assessment (EcIA) is as follows:

- To identify and describe all potentially significant ecological effects associated with the proposed development
- To set out the mitigation measures required to ensure compliance with nature conservation legislation and relevant planning policy, and to address any potentially significant ecological effects
- To identify how mitigation measures will/could be secured
- To identify any significant residual ecological effects and set out any compensation measures proposed to address these
- To identify appropriate enhancement measures in order to achieve Biodiversity Net Gain
- To set out the requirements for post-construction monitoring

Image 1: Application Site location and approximate site boundary shown in red. Map data (2026): Google Earth.

3 PLANNING POLICY AND LEGISLATION

Legislation

3.1. The following pieces of legislation are of specific relevance to this assessment:

- The Environment Act 2021[1]. This piece of legislation is of relevance because all planning permissions granted in England are mandated to deliver at least 10% Biodiversity Net Gain from 12th February 2024 (unless exemptions apply and small sites were mandated on 2nd April 2024, neither of which are applicable to the Application Site).

- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019[2]. This piece of legislation is of relevance because the Application Site has potential to support European Protected Species (EPS).

- Wildlife and Countryside Act 1981[3] (as amended, including by the Countryside and Rights of Way Act 2000). This piece of legislation is relevant because the Application Site is within the zone of influence of a Site of Special Scientific Interest (SSSI), which is protected in England under this Act.

- [redacted]

- Natural Environment and Rural Communities (NERC) Act 2006[4]. Section 41 includes lists of habitats and species recognised as of 'principal importance' for the conservation of biodiversity. Section 40 of the NERC Act 2006 requires all public bodies to have regard for biodiversity conservation when carrying out their function. This is commonly referred to as the 'biodiversity duty'.

3.2. The following pieces of legislation have been considered, but are not considered to be of

[1] Great Britain. Environmental Act 2021 [online]. Available from: https://www.legislation.gov.uk/ukpga/2021/30/contents
[2] Great Britain. *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019* No.579 [online]. Available from: https://www.legislation.gov.uk/ukdsi/2019/9780111179512/contents
[3] Great Britain. *Wildlife and Countryside Act 1981* [online]. Available from: http://www.legislation.gov.uk/ukpga/1981/69/contents
[4] Great Britain. *Natural Environment and Rural Communities Act 2006* [online]. Available from: http://www.legislation.gov.uk/ukpga/2006/16/contents

specific relevance in this case:

- Hedgerows Regulations 1997 (the Regulations do not apply to the hedgerows in this context)
- Water Framework Directive 2000 (there are water features onsite and/or considerations in terms of groundwater)

Environment Act 2021

3.3. In accordance with the Environment Act 2021, mandatory Biodiversity Net Gain (BNG) will apply from January 2024 for developments in the Town and Country Planning Act 1990, unless exempt. It will apply to small sites from April 2024.

3.4. Schedule 7A of the Act makes provision for grants of planning permission in England to be subject to a condition, to secure that the 'biodiversity gain objective' is met.

3.5. The 'biodiversity gain objective' is met in relation to development for which planning permission is granted if the biodiversity value attributable to the development exceeds the pre-development biodiversity value of the onsite habitat by at least the relevant percentage.

3.6. The biodiversity value attributable to the development is the total of—

(a) the post-development biodiversity value of the onsite habitat,

(b) the biodiversity value, in relation to the development, of any registered offsite biodiversity gain allocated to the development, and

(c) the biodiversity value of any biodiversity credits purchased for the development.

3.7. The relevant percentage is 10%, but the Secretary of State may by regulations amend this paragraph so as to change the relevant percentage.

3.8. The biodiversity value of any habitat or habitat enhancement are to its value as calculated in accordance with the 'Biodiversity Metric'.

3.9. Every planning permission granted for the development of land in England shall be deemed to have been granted subject to the condition in sub-paragraph (2), which states that the development may not be begun unless:

(a) a biodiversity gain plan has been submitted to the planning authority

(b) the planning authority has approved the plan.

3.10. Local Planning Authorities (LPAs) will have to approve a biodiversity net gain plan for development work before it can start.

Planning policy

National Planning Policy Framework 2026

3.11. Section 19 Conserving and enhancing the natural environment, N1-N6 of the NPPF relate to 'N1: Identifying environmental opportunities and safeguards, N2: Improving the natural environment, N3: Trees in new development, N4: Protected Landscapes, N5: Maintaining the character of the coast, and N6 relates to Areas of particular importance for biodiversity and geodiversity.

3.12. N1: Identifying environmental opportunities and safeguards of the NPPF states the following:

"Development plans should safeguard and enhance the natural environment, and reflect the wider benefits from natural capital and ecosystem services, by using Local Nature Recovery Strategies, Protected Landscape Management Plans, River Basin Management Plans, National Forest Strategies, Community Forest Plans and other relevant evidence at the most appropriate level to:

a. Set out the hierarchy of international, national and locally designated sites and areas of importance for their landscape, geodiversity or biodiversity value in the plan area, and identify other features which require particular consideration in managing development due to their environmental value such as chalk streams;

b. Identify opportunities for the conservation, enhancement and recovery of landscapes, sensitive waterbodies, habitats and priority or threatened species, including through habitat restoration, the use of nature-based solutions, and the creation and strengthening of ecological networks that are more resilient to current and future pressures (including opportunities which exist at a catchment or landscape scale across plan boundaries);

c. Steer the location of development, including through site allocations, in ways which utilise land of least environmental value where that would be consistent with other policies in this Framework. This should include limiting the scale and extent of development within Protected Landscapes, avoiding the use of higher quality agricultural land where land of poorer quality is available and avoiding and minimising harm to designated sites of importance for nature. Areas which could become of particular importance for nature identified in Local Nature Recovery Strategies should be taken into account as opportunities to integrate development with environmental restoration, but should not necessarily preclude the allocation of land for

development; and

d. Set out standards for green infrastructure provision, in a way which complements and/or incorporates those for recreational land (as set out in policy HC1). These should draw upon Natural England's Green Infrastructure Standards for England58, tailored as necessary to local circumstances.

2. Development plans should only set local standards for biodiversity net gain which are in excess of the statutory net gain requirement where this is for specific site allocations and is fully justified and deliverable. Local standards should not extend to categories of development which are exempt from statutory biodiversity net gain".

3.13. N2: Improving the natural environment of the NPPF states the following:

"1. *To contribute positively to the natural environment, and support nature's recovery, development proposals should:*

a. Consider the environmental qualities of land proposed for development, including habitats, landscape character and the natural beauty of the countryside, and identify opportunities for those qualities to be conserved or enhanced (including through requirements for biodiversity net gain where these apply);

b. Take into account the quality of agricultural land (including that classified as best and most versatile agricultural land, and its grade), and if significant development of agricultural land is necessary, use areas of poorer quality land where possible;

c. Take suitable opportunities to connect to and strengthen ecological networks that extend beyond the site, drawing on the measures proposed by Local Nature Recovery Strategies, National Forest Strategies and Community Forest Plans, where present, and other relevant assessments;

d. Conserve and enhance existing natural features of visual, historic or nature conservation value (such as established trees and hedgerows) where possible; and use appropriate landscaping to help create a well-designed place and integrate the development into its surroundings;

e. Use green infrastructure provided as part of the scheme and nature-based solutions to secure multiple benefits: such as for biodiversity; surface water and pollution management (including maintaining flow rates and water quality); climate change mitigation and adaptation, and recreation;

f. Minimise any adverse impacts on biodiversity and include features which support priority or threatened species such as swifts, bats and hedgehogs. Development proposals should incorporate integrated nest boxes (commonly known as swift bricks) into their construction unless there are compelling technical reasons which prevent their use, or would make them ineffective; and

g. Ensure that green infrastructure and other features to support nature are located and designed to minimise risk of future failure, and that appropriate measures are in place for any necessary long-term management.

2. If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated or, as a last resort, compensated for, then the development should be refused.

3. Development proposals may incorporate biodiversity enhancements which exceed the statutory objective for biodiversity net gain, but this should only be a requirement where it is set out in up-to-date development plan policies for specific site allocations. Decisionmakers should not give weight to other development plan policies which require biodiversity gains which go beyond the statutory framework, including where a policy requires gains for development proposals which are exempt".

3.14. N3: Trees in new development of the NPPF states the following:

"1. In recognition of the benefits which trees can provide for biodiversity, climate change mitigation and adaptation, and the character and quality of the built environment, development proposals should:

a. Make new streets tree-lined (unless there are strong reasons why this would be inappropriate in specific streets), and incorporate trees in other suitable locations, such as in parks and through the provision of community orchards;

b. Ensure that the selection of species and their placement is compatible with highways and other infrastructure requirements and the needs of different users of public spaces; and will be effective in helping to adapt to the effects of climate change and delivering other environmental benefits. Suitable arboricultural advice should be sought, and proposals discussed with highways and trees officers where necessary, so that the right trees are planted in the right places; and

c. Make provision for the long-term maintenance of both existing and newly-planted trees which form part of the development".

3.15. N4: Protected Landscapes of the NPPF states the following:

"1. Development proposals within Protected Landscapes should be limited in scale and extent and sensitively located and designed to avoid harm to the statutory purposes and special qualities of the Protected Landscape. Substantial weight should be placed on the importance of conserving and enhancing the natural beauty of these areas, and to conserving and enhancing wildlife and cultural heritage in National Parks and the Broads.

2. Proposals for major development59 within Protected Landscapes should be refused other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. To inform a decision about whether exceptional circumstances exist, consideration of such proposals should include an assessment of:

a. The need for the development, including in terms of any national considerations such as maintaining a sufficient supply of minerals, and the impact of permitting it, or refusing it, upon the local economy;

b. The cost of, and scope for, developing outside the Protected Landscape, or meeting the need for the development in some other way; and

c. Any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which it could be moderated.

3. Where, exceptionally, proposals for major development are approved within Protected Landscapes, steps should be taken to mitigate potential adverse impacts on their special qualities and statutory purposes60, including on features such as tranquillity and dark skies.

4. Development proposals within the setting of Protected Landscapes should be sensitively located and designed to avoid or minimise adverse impacts on the Protected Landscape.

3.16. N5: Maintaining the character of the coast of the NPPF states the following:

1. Development proposals should maintain the character of undeveloped areas of coast, including land designated for its landscape, habitat or heritage value, while improving public access to it where appropriate. They should not hinder the completion and maintenance of a continuous signed and managed route around the coast (the King Charles III England Coast Path National Trail)

2. Development proposals in areas defined as Heritage Coast (and which do not already fall within a Protected Landscape) should be consistent with the special character of the area and the importance of its conservation. Major development within areas defined as Heritage Coast

should not be supported, unless the development is compatible with the special character of the area.

3. If located within a Coastal Change Management Area, development proposals should also be considered against policy F9".

3.17. N6: Areas of particular importance for biodiversity and geodiversity of the NPPF states the following:

"1. To support the conservation of important habitats, species and sites of geodiversity value, development proposals affecting:

a. A site of international importance, which for the purpose of this policy is a habitats site, should be refused unless:

i. An appropriate assessment has concluded that the proposal will not adversely affect the integrity of the site (either individually or in combination with other developments), or the proposal can satisfy the derogation tests61; and/or

ii. The impact of development on the relevant protected features of the protected site is being addressed through an Environmental Delivery Plan which has been made and the developer has committed to paying the nature restoration levy.

b. A site of national importance, which for the purpose of this policy is one designated as a Site of Special Scientific Interest, should only be supported if:

i. There would be no adverse effect (either individually or in combination with other developments) on the site's features of special scientific interest; or

ii. The benefits of the development in the location proposed clearly outweigh both the likely impact on the features of special scientific interest, and any broader impact on the national network of Sites of Special Scientific Interest; or

iii. The impact of development on the relevant protected feature of the protected site is being addressed through an Environmental Delivery Plan which has been made and the developer has committed to paying the nature restoration levy.

c. A site of local importance, which for the purpose of this policy is one designated as a Local Nature Reserve or identified as a local wildlife site, local geological site or equivalent in the development plan, should only be supported if:

i. There would not be a significant adverse effect on the integrity of the site; or

ii. The benefits of development in the location proposed clearly outweigh the likely impact on the features which make the site valuable for nature conservation.

2. Irrespective of a site's status in nature conservation terms, development proposals which would entail the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.

3. This policy applies to development on land inside or outside a designated area, if it would have an impact on the identified biodiversity or geodiversity value of the area concerned".

Wokingham Borough Council Core Strategy 2010[5]

3.18. Policy CP7 related to 'Biodiversity' and states the following:

3.19. "Sites designated as of importance for nature conservation at an international or national level will be conserved and enhanced and inappropriate development will be resisted. The degree of protection given will be appropriate to the status of the site in terms of its international or national importance.

Development:

3.20. Which may harm county designated sites (Local Wildlife Sites in Berkshire), whether directly or indirectly, or

3.21. Which may harm habitats or, species of principal importance in England for nature conservation, veteran trees or features of the landscape that are of major importance for wild flora and fauna (including wildlife and river corridors), whether directly or indirectly, or

3.22. That compromises the implementation of the national, regional, county and local biodiversity action plans will be only permitted if it has been clearly demonstrated that the need for the proposal outweighs the need to safeguard the nature conservation importance, that no alternative site that would result in less or no harm is available which will meet the need, and:

3.23. i) Mitigation measures can be put in place to prevent damaging impacts; or

3.24. ii) Appropriate compensation measures to offset the scale and kind of losses are provided.

[5] Wokingham Borough Council. *Wokingham Borough Core Strategy 2010 Adopted January 2010*. Available at: https://www.wokingham.gov.uk/sites/wokingham/files/2023-06/Final%20adopted%20Core%20Strategy%20inc.%20cover.pdf

3.25. Core Policy CP8 of Wokingham Borough Council Local Plan 2010, which relates to the Thames Basin Heath (TBH) SPA, states the following:

3.26. "Development which alone or in combination is likely to have a significant effects on the Thames Basin Heaths Special Protection Area will be required to demonstrate that adequate measures to avoid and mitigate any potential adverse effects are delivered.

3.27. Within 400m (linear) of the TBH SPA, the authority and Natural England do not consider it is generally possible to avoid impact from development. Therefore, no proposal for residential development will be allowed due to the risks of fires, fly-tipping, cat predation and other impacts. This view has been accepted by the Assessor who considered the validity of Natural England's evidence on the matter as part of the examination into the SEP. This approach is also consistent with the Appropriate Assessment and SEP Policy NRM6".

3.28. Managing Development Delivery (MDD) Local Plan (adopted February 2014)[6] by Wokingham Council states:

3.29. "Policy TB23: Biodiversity and Development

3.30. Sites of national or international importance are shown and sites of local importance are defined on the Policies Map.

3.31. Planning permission for development proposals will only be granted where they comply with policy CP7 – Biodiversity of the Core Strategy and also demonstrate how they:

3.32. a) Provide opportunities, including through design, layout and landscaping to incorporate new biodiversity features or enhance existing

3.33. b) Provide appropriate buffer zones between development proposals and designated sites as well as habitats and species of principle importance for nature conservation

3.34. c) Ensure that all existing and new developments are ecologically permeable through the protection of existing and the provision of new continuous wildlife corridors, which shall be integrated and linked to the wider green infrastructure network".

[6] Wokingham Borough Council. Managing Development Delivery (MDD) Local Plan (adopted February 2014). Available at: https://www.wokingham.gov.uk/sites/wokingham/files/2023-06/Final%20adopted%20Core%20Strategy%20inc.%20cover.pdf

4 METHODOLOGY

Scope of assessment

4.1. The EcIA focuses on 'important ecological features', i.e. those which are considered to be of relevance to the decision-making process and could be affected by the proposed development. Important ecological features include protected species, habitats/species of 'principal importance' for biodiversity conservation (i.e. Section 41 habitats/species[7]), birds of conservation concern[8], invasive non-native plant species [9] and habitats and species identified as priorities for conservation in the Wokingham Borough Council Core Strategy (2010).

Zone of influence

4.2. The 'Zone of Influence' (ZoI) is the area over which important ecological features (on-site or off-site) may be affected as a result of the proposed development and associated activities. The ZoI can vary for different ecological features, depending on their sensitivity to environmental change.

4.3. The ZoI for statutory designated sites has been informed by Natural England's Sites of Special Scientific Interest (SSSIs) Impact Risk Zones[10] (IRZs). IRZs define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts. This has been determined as part of the desk study, as discussed below. In this case it is clear that the Application Site is within the IRZ of the multiple SSSI.

Desk Study

4.4. The following information was requested from Pioneer Environment Group Ltd in December 2025 which included the request of records within 1km of the centre of the Application Site from Thames Valley Environmental Records Centre (TVERC):

[7] Section 41 (41) of the Natural Environment and Rural Communities (NERC) Act, which came into force on 1st October 2006, requires the Secretary of State to publish a list of habitats and species which are of principle importance for the conservation of biodiversity in England.
[8] Red list species are those that are globally threatened, whose population or range has declined rapidly in recent years (i.e. by more than 50% in 25 years), or which have declined historically and not recovered. Amber list species are those whose population or range has declined moderately in recent years (by more than 25% but less than 50% in 25 years), those whose population has declined historically but recovered recently, rare species (<300 breeding pairs or <900 wintering individuals), those with internationally important populations in the UK, those with localised populations, and those with an unfavourable conservation status in Europe. Species that meet none of these criteria are Green-listed.
[9] Invasive non-native plants (Section 14) on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended).
[10] Natural England (June 2019). Natural England's Impact Risk Zones for Sites of Special Scientific Interest (For use by Local Planning Authorities to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites and determine when to consult Natural England).

- Legally protected and notable species records;
- Statutory designated sites; and
- Non-statutory designated sites

4.5. The MAGIC website[11] was used to carry out a data search for SSSIs, Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) with an IRZ that falls within the Application Site, in March 2026.

Field surveys

4.6. A summary of ecological field surveys is provided in **Table 2**.

Table 2: Field surveys.

Survey	Survey carried out by	Survey date/s	Study Area	Relevant Guidelines
Previous bat surveys 2006 - 2012				
Unknown - likely building assessment and dusk/dawn building and transect surveys	GVA Grimley/ WSP Environmental12	2006	Arborfield Garrison including red line boundary	Unknown
Initial building assessment	Entec	2008	Arborfield Garrison including red line boundary	Bat Conservation Trust, 2007 Mitchell-Jones and McLeish, 2004
Bat detector transects and emergence/re-entry surveys	Entec	2008	Arborfield Garrison including red line boundary	
Initial internal building inspections (buildings with roof voids where accessible)	Entec	2008	Arborfield Garrison including red line boundary	
Update internal building inspections (buildings with roof voids where accessible)	Amec (now includes Entec) 13	2012	Arborfield Garrison including red line boundary	

[11] *Multi Agency Geographic Information for the Countryside* [online]. Available at: https://magic.defra.gov.uk/.
[12] WSP Environmental 2006 Bat Surveys (GVA / WSP Environmental 2006).
[13] AMEC *Environmental Statement and Appendices* (AMEC 2013).

AECOM Bat surveys 2014				
Building Reassessment for Roosting Bats.	AECOM	2014	Arborfield Garrison including red line boundary	Bat Conservation Trust 2012
Building Dusk and Dawn (Emergence / Re-Entry Surveys)	AECOM	June to August 2014	Arborfield Garrison including red line boundary	
Transect and Automatic Detector Surveys	AECOM	June to August 2014	Arborfield Garrison including red line boundary	
Previous reptile surveys 2008-2014				
Population class assessment	Entec	2008 20 visits (April to September)	Arborfield Garrison including red line boundary	Griffiths, R. and Inns, H. 1998 Froglife 1999
Population class assessment	AMEC (now includes Entec)	2012 13 visits (September to October)	Arborfield Garrison including red line boundary	
Population class assessment	AECOM[14]	2014 7 visits (July to October)	Arborfield Garrison including red line boundary	
2025 (Undertaken for this EcIA)				
Preliminary Ecological Appraisal (PEA)	Pioneer Environment Group Ltd	8/12/2025	Red line boundary	CIEEM (2017)
Preliminary roost assessment	Pioneer Environment Group Ltd	25/12/2025	Red line boundary	Collins (2023)
Habitat suitability Index	Pioneer Environment Group Ltd	2025	Ponds within 500m of red line boundary	Oldham, Keeble, Swan, & Jeffcote, 2000
2026 (Undertaken for this EcIA)				
Reptile presence/absence surveys	ACD Environmental Ltd	Mats deployed 17/03/2026 7 Checks 31/03/26, 07/04/26, 14/04/26, 16/04/26,	Red line boundary	Gent and Gibson 1998 Froglife (1999 NARRS 2007 Sewell et al 2012

[14] AECOM (2014). *Arborfield Garrison - Reptile Mitigation Strategy*.

		28/04/26, 06/05/26, 13/05/26		
Bats - visual assessment of trees	ACD Environmental Ltd	18/03/2026	Red line boundary	Collins 2023 Bat Conservation Trust 2023
Ecology surveys programmed for 2026 (Undertaken for this EcIA)				
Bat dusk emergence/ dawn re-entry survey	ACD Environmental Ltd	May - July 2026	Red line boundary	Collins 2023 Bat Conservation Trust 2023
eDNA Great Crested Newt surveys 12 ponds	ACD Environmental Ltd	17th April - 24th April 2026	Ponds within 500m of red line boundary	Biggs et al (2014)
Updated Preliminary Ecological Appraisal (PEA)	Ecosupport Ltd[15]	10th of July 2026	Habitats within red line	UKHab (2023)[16]

Limitations

4.7. It should be noted that whilst every effort has been made to describe the features on-site as accurately as possible, this report reflects the habitat conditions noted at the time the ecology survey was undertaken only.

4.8. Habitats were part-surveyed outside of the optimal survey period for botanical and invasive species. As such, species lists included in this report should not be considered exhaustive. Should habitats be significantly impacted beyond the scale of the initially proposed development, then further survey effort between May and August should be considered.

4.9. The accuracy of the consultation plan is limited to the data supplied by the TVERC search. In circumstances where there is an absence of a full grid reference or incomplete data, records have been omitted from the relevant figures. Records dated before the year 2000 have been excluded from the report, as they are likely to be outdated or superseded by more recent information, and may no longer reflect species presence.

[15] Ecosupport Ltd. *Preliminary Ecological Appraisal.* Former Arborfield Studios (Parcels W, Y, and Z), Arborfield Green. (2026)
[16] UKHab Ltd (2023). *UK Habitat Classification Version 2.0.* Available at: http://www.ukhab.org

4.10. Field signs for protected and valuable species are often difficult to find, or absent. The survey conducted was not intended to be a comprehensive presence/absence survey for all species, but rather to provide an indication of the likely presence of such species based on the field signs found, and the nature of the habitats present.

Assessment methodology

4.11. The habitats and species evaluations and likely effects are made with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment[17].

4.12. The importance of ecological features has been assessed by carrying out a suite of specialist surveys (**Table 2**) to determine whether protected species/habitats, and/or species/habitats of conservation concern are present in the Application Site or its ZOI, then comparing their status at the international/national/county/regional/local scale, through the use of available contextual information, to establish the importance of those features in a geographical context.

4.13. The overall effect of the proposed development on a given feature has been predicted, considering the baseline data collected through desk study and field survey, and the various impacts expected to occur. An assessment has then been made as to whether the effect on each important ecological feature is likely to be significant or not.

4.14. Significance is the weight that should be attached to effects when decisions are made. For the purpose of EcIA, a likely significant effect is an effect that either supports or undermines biodiversity conservation objectives for important ecological features (which could be species populations/groups of species, habitats, or a designated site), or for biodiversity in general. Effects have been considered significant at a wide range of scales, from national to local.

4.15. A sequential process has been adopted to avoid/mitigate, and if required, compensate for significant negative ecological effects. This is referred to as the 'Mitigation Hierarchy'. Avoidance includes measures to change the design of the proposed development to avoid an impact occurring. Mitigation includes measures to avoid or reduce the negative impacts of the proposed development. Compensation addresses significant negative residual effects (those likely to occur after avoidance and mitigation have been considered). It is this objective of compensation, and not its location, that distinguishes compensation from 'mitigation'.

4.16. In EcIA, it is only essential to assess and report significant residual effects that remain after

[17] CIEEM (2019). Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater and Coastal, Version 1.3. updated September 2024. Chartered Institute of Ecology and Environmental Management, Winchester.

mitigation measures have been taken into account. However, the potential significant effects without mitigation as well as the residual significant effects following mitigation have been presented where the mitigation proposed is experimental, unproven or controversial and/or to demonstrate the importance of securing the measures proposed through planning conditions or obligations.

Valuation

4.17. The value of important ecological features (sites, habitats and species) is assigned according to their scale of importance using the following terms:

- International importance – ecological features of international importance such as SPAs and SACs, and/or sites that support internationally-important populations of species.
- National importance – ecological features of national importance such as SSSIs, features which meet the criteria for designation as a SSSI, and/or sites that support nationally-important populations of certain species.
- Regional importance – ecological features of regional importance, such as a species population that is of importance at a scale greater than the County but does not meet the criteria for National Importance.
- County importance – ecological features of county-scale importance, including features that have been designated as local wildlife sites, or meet the criteria for designation as a local wildlife site, and/or county-important populations of species.
- Local importance – ecological features of local importance, including habitats or species populations listed as being of nature conservation importance (e.g. S41, local BAP, or listed in local planning policy) which are not considered to be of County importance by virtue of the quality, size/number, rarity, the extent to which they are threatened throughout their range, or to their rate of decline.

Precautionary principle

4.18. The evaluation of significant effects is based on the results of the ecological surveys carried out in the Application Site and other available evidence. In cases of reasonable doubt, where it is not possible to robustly justify a conclusion of no significant effect, a significant effect is assumed. Where uncertainty exists, it has been duly acknowledged.

5 BASELINE ECOLOGICAL CONDITIONS

Context

5.1. The Application Site is located within the village of Arborfield Green, with a survey area of approximately 13.1 ha, and includes three large filming stages, office buildings, workshops, and backlots; additional buildings, hardstanding, and areas of greenspaces are also present across the Site. Two parcels of Ancient & Semi-natural Woodland were identified adjacent to the Site; additionally, a large section of the woodland on-site was identified as a 'deciduous woodland' Habitat of Principal Importance.

Designated Sites

5.2. SSSIs, SACs and SPAs with IRZs within the boundary of Application Site are shown in **Table 3**.

Table 3: Statutory designated sites with an IRZ within the Application Site.

Name of statutory designated sites	Approximate distance and direction from Application Site	Reason for designation	Scale of importance
Thames Basin Heaths (SPA)	3.5km south/ southwest	Consists of 13 SSSIs. The area supports important breeding populations of ground-nesting birds such as nightjar *Caprimulgus europaeus,* woodlark *Lullula arborea* and Dartford warbler *Sylvia undata*.	International and European
Longmoor Bog (SSSI)	500m southeast	Designated because of its base-poor valley mine, carr woodland and wet heathland.	National

5.3. The desk study identified two statutory designated sites within 5km, these are Thames Basin Heath SPA and Longmoor Bog SSSI.

5.4. Longmoor Bog is designated for its base-poor valley mine, carr woodland, and wet heathland and is situated 500m south east of the Application Site.

5.5. Thames Basin Heath SPA is a European Designated Site and lies 3.5km south west of the Application Site. The Application Site lies within the 5km zone of influence for major developments for this designated site.

5.6. Thames Basin Heath SPA contains lowland heath supporting important populations of Dartford Warbler *Sylvia undata*, European nightjar *Caprimulgus europaeus* and woodlark *Lullula arborea* all of which are vulnerable ground-nesting birds of European importance.

5.7. SPAs are legally protected under The Conservation of Habitats and Species Regulations 2017.[18] Dartford warbler and European nightjar are listed as Birds of Conservation Concern on the Red and Amber lists respectively.[19] Furthermore, European nightjar and woodlark are listed on Section 41 of the Natural Environment Research Council (NERC) Act 2006.

5.8. The criteria for designation of Thames Basin Heath SPA are as follows:

5.9. Annex I species that are a primary reason for selection of this site - Dartford warbler, European nightjar and woodlark.

5.10. Annex I species present as a species of interest but not a qualifying feature are hen harrier *Circus cyaneus*, merlin *Falco columbarius*, short eared owl *Asio flammeus* and kingfisher *Alcedo atthis*.

5.11. The reasons for designation of the SPA relates to a number of individual qualifying species, which includes Dartford warbler, European nightjar and woodlark. These species are listed under Annex 1 of the Habitats Directive.[20]

5.12. The impact of the proposed development on European protected sites is brought forward for consideration in **Section 7**.

5.13. Local (non-statutory) wildlife sites within 2km of the Application Site are shown in **Table 4**.

Table 4: Local wildlife sites within 2km of the Application Site

Name of Local Wildlife Site	Approximate distance and direction from the Application Site	Nature Conservation Interest	Scale of importance
Hazeltons Copse (LWS)	890m north/ northwest	A lowland mixed deciduous woodland. Species include 23 indicator species of long-established woodland for its size. The site connects to	County

[18] HM Government. *The Conservation of Habitats and Species Regulations 2017*. Available at: https://www.legislation.gov.uk/uksi/2017/1012/contents
[19] Royal Society for the Protection of Birds (RSPB). *Birds of Conservation Concern 5*. Available at: https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf
[20] European Union (EU). *Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (Codified version)*. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0147

		two nearby woodland LWSs via Green Lane.	
The Coombes (LWS)	910m north/ northeast	Consists primarily of an area of lowland mixed deciduous woodland with varied structure and species throughout. Much of the site is a Local Geological Site and LWS. Includes features such as bank, diches with associated mature trees, and 23 long established woodland indicators.	County
Spring Copse and Long Copse (North) (LWS)	880m west	Contains section 41 Habitats of Principal Importance including lowland mixed deciduous woodland and wet woodland.	County
Long Copse (South) and Robin Hood Copse (LWS)	800m west/ southwest	These are ancient woodland and wood banks are apparent near the edge.	County
Longmoor Bog and Woodland, California Country Park (LWS)	580m southwest	This is part of California Country Park that lies outside the Longmoor Bog SSSI.	County
Spring Copse and Long Copse (North) Extension (LWS)	840m west/ southwest	Deciduous woodlands and ancient semi-natural woodlands.	County
Longmoor Bog (LNR)	510m southeast	Carr woodland, wet heathland and secondary mixed woodland.	County
California Country Park (Country Park)	510m southeast	Set within 100 acres of ancient bogland and lowland heath.	County

5.14. Given the distance between the Application Site and LWS, and difficulty of accessibility to the public, the proposed development is considered unlikely to pose any significant adverse effects on this LWS which has been scoped out of the current EcIA.

Habitats

Habitats of Principle importance

5.15. Seven parcels of Ancient & Semi-natural Woodland were identified within 500m of the Site, with two parcels directly adjacent to the north/northeastern site boundary; these parcels are part of Kidgem Copse.

5.16. Data from the Natural England's Priority Habitat Inventory dataset returned 11 records of two Habitat of Principal Importance listed under Section 41 of NERC Act (2006) within 1km of the Site: deciduous woodland and traditional orchard.

5.17. Habitats are listed below. All the features described are shown on the Baseline Habitat Map in **Appendix 1** and shown in the Preliminary Ecological Appraisal report completed by Ecosupport Ltd in 2026.

5.18. The Application Site supports the following habitats:

- g4 – Modified grassland with secondary codes scattered trees (32);
- w1g – Other woodland; broadleaved with secondary code line of trees (33);
- w1f – Lowland mixed deciduous woodland;
- r1g – Other standing water with secondary code sustainable drainage system (848);
- u1b – Developed land; sealed surface with secondary codes scattered trees (32) and introduced shrub (847);
- u1b5 – Buildings;
- u1c – Artificial unvegetated; unsealed surface;
- h3d – Bramble scrub; and
- u1 – Built-up areas and gardens with secondary code vegetated garden (828).

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5.19. The survey area comprised the entirety of the former Arborfield Film Studios, including three large filming stages, office buildings, workshops, and backlots. Additional buildings, hardstanding, areas of greenspace and a number of scattered trees were recorded throughout the Site.

5.20. The Application Site is surrounded by agricultural pasture with hedgerows, trees, and woodland to the north, east, and west, with the land south of the Site largely dominated by residential buildings and associated infrastructure.

g4 Modified grassland with secondary codes scattered trees (32)

5.21. Modified grassland parcels are present throughout the site which appear to be regularly managed. Species identified include Perennial Rye Grass (*Lolium perenne*), False Oat Grass (*Arrhenatherum elatius*), Willowherb species (*Epilobium* sp.), White Clover (*Trifolium repens*), White Stonecrop (*Sedum album*), Common Horsetail (*Equisetum arvense*), Creeping Cinquefoil (*Potentilla reptans*), St John's Wort (*Hypericum perforatum*), White Campion (*Silene latifolia*), Parsley species (*Petroselinum sp*.), Creeping Buttercup (*Ranunculus repens*), Field Bindweed (*Convolvulus arvensis*), Yarrow (*Achillea millefolium*), Herb Robert (*Geranium robertianum*), Bristly Oxtongue (*Helminthotheca echioides*), and Ivy (*Helix hedera*). Within the central and northern extents of the Site, seven parcels of modified grassland were recorded predominantly located in areas subjected to regular mowing regimes, along building perimeters and road verges.

5.22. Several scattered trees were identified within the Application Site. Species identified include Poplar species (*Populus* sp.), European Ash (*Fraxinus excelsior*), Sycamore (*Acer pseudoplatanus*), Field Maple (*Acer campestre*), and Oak (*Quercus robur*).

5.23. The modified grassland and scattered trees are considered to have **Site** importance.

w1g – Other woodland; broadleaved with secondary code line of trees (33)

5.24. Three lines of trees (under primary code w1g) were identified throughout the site, forming the site boundaries. Species identified include Poplar species *Populus* sp., European Ash *Fraxinus excelsior*, Sycamore *Acer pseudoplatanus*, Field Maple *Acer campestre*, and Oak *Quercus robur*.

Although this woodland habitat is present on site, the UKHab classification system requires the secondary habitat code 'line of trees' (33) to be placed under the primary woodland category (W). This is a technical mapping requirement within UKHab to ensure consistency in how linear tree features are recorded and does not imply that the feature functions ecologically as woodland.

5.25. The *Other woodland; broadleaved with secondary code line of trees* and considered to be of **Local** importance and is brought forward for consideration in **Section 6**.

w1f – Lowland mixed deciduous woodland

5.26. A small parcel of lowland mixed deciduous woodland (w1f) is present along the northern boundary. The woodland was noted to lack in understorey vegetation and woodland indicators within the ground flora. Tree species identified include Pedunculate Oak *Quercus robur*, Ash *Fraxinus excelsior*, and Field Maple *Acer campestre* and considered to be of Local importance and is brought forward for consideration in **Section 6**.

r1g – Other standing water with secondary code sustainable drainage system (848)

5.27. Two ponds were located within the site boundary. Both ponds appeared to have been created as Sustainable Drainage Systems (SuDS) for the neighbouring residential development.

5.28. Bank top species were continual from the surrounding grassland habitats for both ponds; water was being held at the time of survey, but it was noted that the pond is seasonally dry.

5.29. In-pond vegetation included common bulrush *Typha latifolia*, reed sweetgrass *Glyceria maxima*, goat willow *Salix caprea,* marsh horsetail *Equisetum palustre*, compact rush *Juncus conglomeratus* and soft rush *Juncus effusus*, these ponds are considered to have **Local** importance.

u1b – Developed land; sealed surface with secondary codes scattered trees (32), introduced shrub (847)

5.30. Access roads, car parks and areas of hardstanding comprised a large proportion of the Application Site and have **Negligible** ecological value.

u1b5- Buildings

5.31. A total of 33 buildings were identified across the Site, comprised of filming stages, workshops, office buildings, and outbuildings.

5.32. The buildings are considered to be of **Negligible** ecological value. Their importance with regards to protected species are discussed below.

u1c – Artificial unvegetated; unsealed surface

5.33. Situated mostly around on-site buildings, areas of ruderal/ephemeral species were documented, with additional, mulched areas.

5.34. Artificial unvegetated; unsealed surface is considered to have **Site** value

H3d- Bramble Scrub

5.35. Bramble scrub is present forming a barrier between the site and the adjacent woodland (outside of the redline site boundary) (**Fig 12**). The scrub predominately consists of Bramble *Rubus fruticosus with some Hawthorn Cratageus monogyna, Blackthorn Prunus spinosa, and Field Maple Acer campestre.*

5.36. Bramble scrub is considered to have **Site** value

u1 – Built-up areas and gardens with secondary code vegetated garden (828)

5.37. Scattered around some of the buildings, areas of introduced shrub/flowerbeds were present. Cotoneaster sp., bamboo *Bambusa* sp., leylandii *Cupressus × leylandii*, Mexican orange blossom *Choisya ternata*, Indian cluster berry *Lonicera ligustrina* and numerous other ornamental species were noted across these environments.

5.38. The built up areas and gardens is considered to have **Site** value.

Invasive species

5.39. Invasive species have been recorded within the Application Site with the following invasive plants species being identified: Cotoneaster sp., buddleia, *Monbretia sp.,* and tree of heaven *Ailanthus altissima.* Three records were returned for rhododendron *Rhododendron ponticum*, dated between 2001 - 2017, within 1km of the Application Site.

5.40. Although not Schedule 9 plant species the following were found within the Application Site and are considered invasive in the absence of management: bamboo, buddleia, horsetail, fleeceflower and Indian cluster berry.

5.41. An off-site ancient woodland is directly adjacent to the north site boundary; these parcels are part of Kidgem Copse. the northern boundary. The ancient woodland has been scoped into the EcIA as it will require due consideration during the construction phase due to the proximity

to the proposed development area.

Fauna

[redacted]

Great crested newts and other amphibians

5.48. A summary of great crested newt surveys carried out is shown in **Table 5.**

Table 5. Great crested newt surveys

Survey	Survey carried out by	Survey date/s	Study Area	Relevant guidelines
2010				

Great crested newt tapping surveys	Eco Consult Ltd	Four nights in 2011	Ponds within 500m of red line boundary	English Nature (2001)21
2025				
UK Habitat Classification Survey and pond scoping HSI	Pioneer Environment Ltd	9th June 2025	Ponds within 500m of red line	UKHab (2023)[22]
2026				
HSI and eDNA Surveys	ACD Environmental Ltd	17th and 24th April 2026	Ponds within 500m of red line	Biggs et al (2014)

Limitations

5.49. There were no limitations associated with the great crested newt surveys.

Survey Results

5.50. The dispersal distance of great crested newt from breeding ponds depends upon habitat quality and availability; however, core terrestrial habitat is considered to be 250m whilst ponds up to 500m require consideration.[23] [24]

5.51. The TVERC returned one record of great crested newt, approximately 520m south of the Application Site; Magic Maps (DEFRA, 2025) showed no EPS licences for GCN were granted within 1km of the Application Site.

5.52. A further 16 records of amphibians were returned within 1km of the proposals: two common frog *Rana temporaria*, three common toad *Bufo bufo*, five palmate newt *Lissotriton helveticus* and six smooth newt *Lissotriton vulgaris*.

5.53. Two ponds were identified within the Site and an additional 20 ponds were noted in the wider environment within 500m of the Application Site see **Figure 1.** Out of the 22 ponds, 17 were accessible and subjected to Habitat Suitability Index (HSI) Assessment ponds P18 - P22 were inaccessible and not surveyed. The findings of the HSI Assessments are shown in **Table 6.** and location in **Figure 2.**

[21] English Nature (August 2001). *Great crested newt mitigation guidelines*. Available at: https://mokrady.wbs.cz/literatura_ke_stazeni/great_crested_newt_mitigation_guidelines.pdf
[22] UKHab Ltd (2023). *UK Habitat Classification Version 2.0*. Available at: http://www.ukhab.org
[23] HM Government (26/07/20222). *Guidance Great crested newts: advice for making planning decisions*. Available at: https://www.gov.uk/guidance/great-crested-newts-surveys-and-mitigation-for-development-projects
[24] Langton, T., Beckett, C. and Foster, J. (2001). *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

Figure 1. Pond location within 500m of the site.

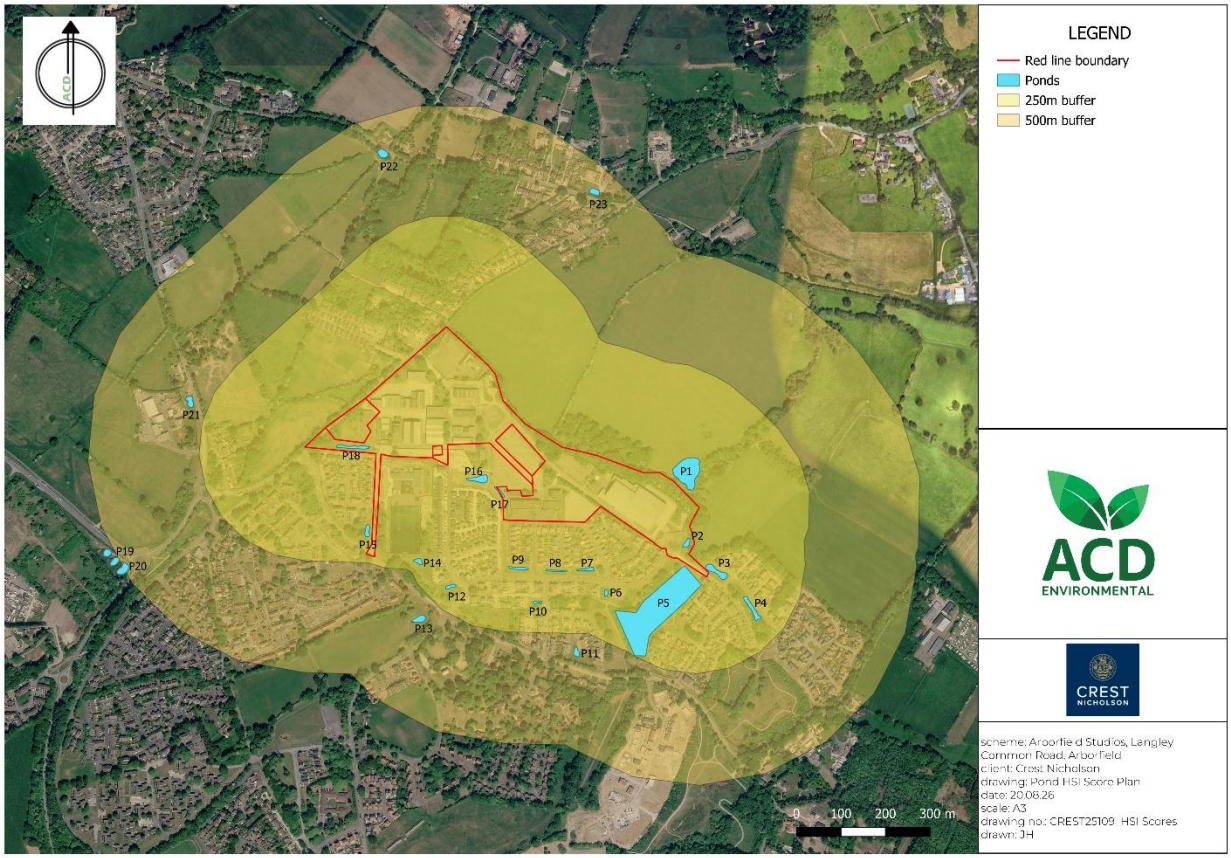


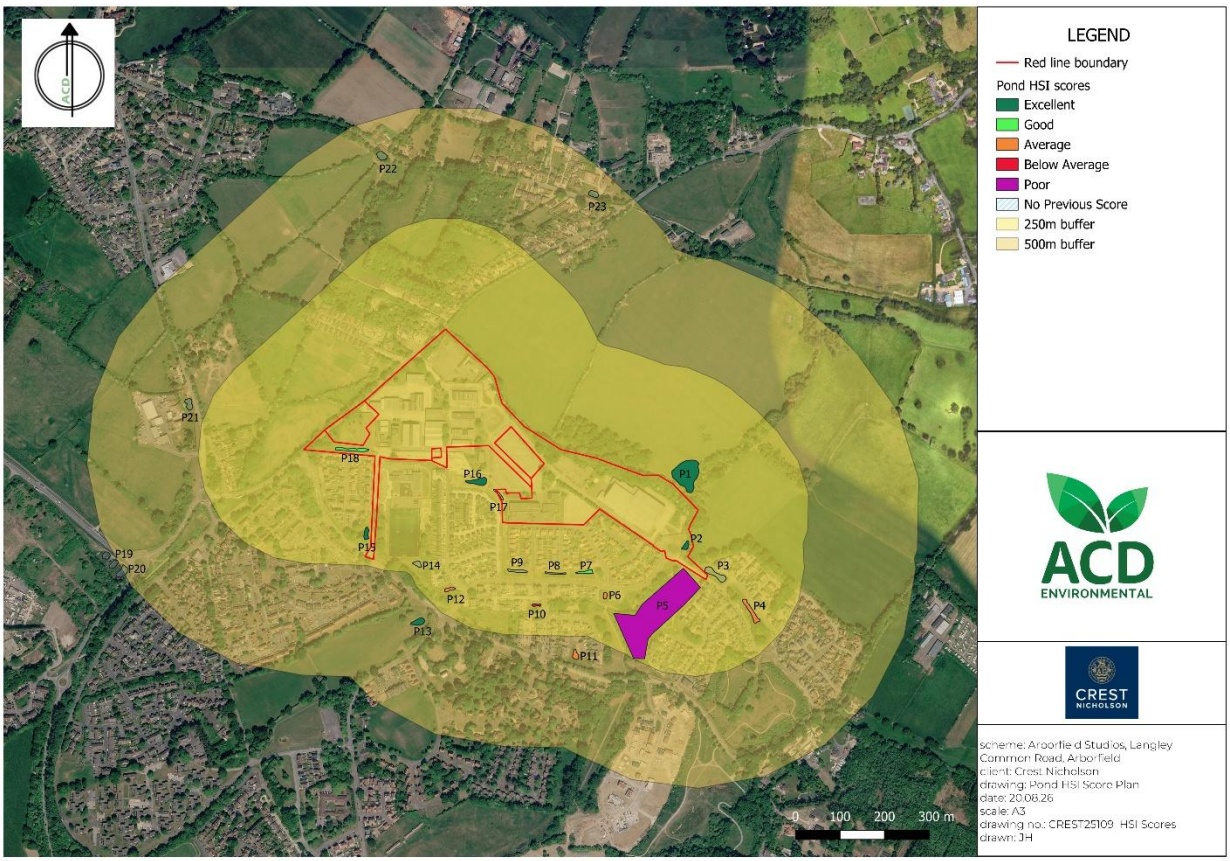
Table 6. Habitat Suitability Index Assessment 2025 for ponds within 500m of the site

Pond	HSI Score	Description
P1	0.82	Excellent HSI. Agricultural pond in livestock pasture.
P2	0.82	Excellent HSI. SuDS pond.
P3	N/A	Dry at time of survey. SuDS pond. Good terrestrial habitat.
P4	0.67	Average HSI. SuDS Pond
P5	0.34	Poor HSI. Recreational fishing pond.
P6	0.65	Average HSI. SuDS pond.
P7	0.76	Good HSI. SuDS pond.
P8	N/A	Dry at time of survey. SuDS pond. Moderate terrestrial habitat.

P9	N/A	Dry at time of survey. SuDS pond. Moderate terrestrial habitat.
P10	0.52	Below Average HSI. SuDS pond.
P11	0.59	Average HSI. SuDS pond.
P12	0.65	Average HSI. SuDS pond.
P13	0.81	Excellent HSI. SuDS pond.
P14	0.81	Excellent HSI. SuDS pond.
P15	0.77	Good HSI. SuDS pond.
P16	0.89	Excellent HSI. SuDS pond.
P17	N/A	Dry at time of survey. SuDS pond. Poor terrestrial habitat.

5.54. No evidence of great crested newt was identified during the survey completed by Pioneer Environment Ltd. A single common frog was discovered amongst the woodland to the east of the Application Site, within close proximity to pond P1. No other evidence of amphibians was observed during either survey period.

Figure 2. Habitat Suitability Index Assessment for ponds within 500m of the site



5.55. The Application Site offered suitable habitat for amphibians to utilise, namely two vegetated

log/rubble piles located near the residential building in the northern corner of the Site, multiple piles of steel/rubble with vegetation and scrub surrounding the water tower in the north of the Application Site and multiple dead wood piles located within the woodland to the east of the Site. These piles offer shaded, damp areas that are suitable for terrestrial-stage amphibians. Boundary scrub and woodland habitats also provide connectivity with the wider environment and act as corridors for individuals to migrate to/from the Site.

5.56. An updated habitat suitability index assessment was completed when collecting eDNA on the 17th and 24th April 2026 to re-assess pond suitability within 500m of the Application Site and if suitable, collect water samples to determine if great crested newts are present. Out of the 17 ponds P2, P16, P15, P9, P4, P7, P6, P13 and P1 were still suitable and eDNA was collected. Pond 18, located within the Application Site was not sampled as the pond was dry. eDNA Results can be seen within **Table 7.**

Table 7. Results of eDNA analysis from SureScreen Scientific

Lab ID	Site Name	OS Reference	Degradation Check	Inhibition Check	Result	Positive Replicates
GCN26 00586	Arborfield Studios - P2	SU 77489 66012	Pass	Pass	Negative	0/12
GCN26 00590	Arborfield Studios - P16	SU 77038 66146	Pass	Pass	Negative	0/12
GCN26 00591	Arborfield Studios - P15	SU 76754 66217	Pass	Pass	Negative	0/12
GCN26 04371	Arborfield Studios - P9	SU 77122 65940	Pass	Pass	Negative	0/12
GCN26 04372	Arborfield Studios - P4	SU 77619 65881	Pass	Pass	Negative	0/12
GCN26 04374	Arborfield Studios - P7	SU 77289 65941	Pass	Pass	Negative	0/12
GCN26 04375	Arborfield Studios - P6	SU 77309 65897	Pass	Pass	Negative	0/12
GCN26 04376	Arborfield Studios - P13	SU 76900 65832	Pass	Pass	Negative	0/12
GCN26 04377	Arborfield Studios - P1	SU 77488 66172	Pass	Pass	Negative	0/12

5.57. All the ponds where eDNA was collected came back as negative. It is considered that great crested newts are not using the ponds onsite or offsite within 500m of the Application Site to breed. The Application Site however offers suitable habitat for amphibians to utilise, namely

two vegetated log/rubble piles located near the residential building in the northern corner of the Site, multiple piles of steel/rubble with vegetation and scrub surrounding the water tower in the north of the Application Site and multiple dead wood piles located within the woodland to the east of the Site. These piles offer shaded, damp areas that are suitable for terrestrial-stage amphibians. Boundary scrub and woodland habitats also provide connectivity with the wider environment and act as corridors for individuals to migrate to/from the Site.

5.58. The data search returned six records of great crested newt Triturus cristatus within 2km of the Application Site along with numerous records of common toad *Bufo bufo*, common *frog Rana temporaria*, palmate newt *Lissotriton helveticus*, and smooth newt *Lissotriton vulgaris*.

5.59. A review on the MAGIC website showed two waterbodies within 500m of the Application Site, at distances of 150m north-east and 431m north. However, the A289 runs immediately north of the Application Site and would prevent dispersal of any potential great crested newt from these waterbodies into the Application Site. The MAGIC website also revealed no great crested newt European Protected Species Licences (EPSL) had been granted within a 500m radius of the Application Site.

5.60. There are no other waterbodies within 500m of the Application Site, therefore, great crested newts and other amphibians are considered likely absent. Although amphibians have been scoped out of the current EcIA, any mitigation measures in place to protect reptiles would also protect any individual amphibians, should they be present.

<u>Reptiles</u>

Table 8. Reptile surveys

Survey	Survey carried out by	Survey date/s	Study Area	Relevant Guidelines
Previous reptile surveys 2008-2014				
Population class assessment	Entec	2008 20 visits (April to September)	Arborfield Garrison including red line boundary	Griffiths.R and Inns, H. 1998 Froglife 1999
Population class assessment	AMEC (now includes Entec)	2012 13visits (September to October)	Arborfield Garrison including red line boundary	
Population class assessment	AECOM25	2014 7 visits (July to October)	Arborfield Garrison including red line boundary	

[25] AECOM (2014). *Arborfield Garrison - Reptile Mitigation Strategy*.

2026				
Reptile presence/absence surveys	ACD Environmental Ltd	Mats deployed 17/03/2026 7 Checks 31/03/26, 07/04/26, 14/04/26, 16/04/26, 28/04/26, 06/05/26, 13/05/26	Red line boundary	Gent and Gibson 1998 Froglife 1999 NARRS 2007 Sewell et al 2012

5.61. The Application Site was assessed as having suitability for reptiles due to the presence of tussocky, scrub edge located to the north of the Application Site and brash piles that also offer areas of refuge. To the west of the Application Site, the open grassland with scrub edges was also identified to offer suitable foraging and basking habitats, with the SuDS pond to the south of this area offering additional foraging habitat.

5.62. Reptile presence/absence surveys were carried out between 17th March 2026 (deployment of mats to suitable locations) to 13th May 2026 (final check and collection of mats).

5.63. In accordance with Gent and Gibson (1998), refugia should be deployed at a density of at least 10/hectare of suitable habitat. A total of 45 refugia were deployed.

5.64. In terms of the number of survey visits, Froglife (1999) refer to seven checks; however, research by Sewell et al (2012) found that three to four checks provides 95% confidence in determining presence/absence of reptiles. A total of seven checks were carried out, which was therefore at the recommended maximum within this survey guidance.

5.65. The refugia were bitumen mats, which are cut to c.50cm x 50cm and provide suitable opportunities for sheltering and basking reptiles.

5.66. The reptile mats were left in place for a two week ‘bedding-in’ period to become more attractive to reptiles before the first survey commenced. All the surveys were carried within the reptile survey season with six (of the seven) surveys carried out within the optimal month of April and May.

5.67. During each check, reptiles were searched for on top of the mats (basking), underneath the mats (sheltering) and was also searched for. During each survey, the surveyor walked a transect between refugia, paying particular attention to potential basking spots, and checking for reptiles on top and underneath refugia. If reptiles had been found, they would have been

logged on a recording sheet. The number, species and sex would have been recorded of individuals found as well as evidence of reptiles (e.g. sloughs). Weather conditions were also recorded.

5.68. The location of the reptile mats is shown in **Figure 3.**

Figure 3: Reptile presence/absence mat placement

5.69. The dates and weather conditions for each of the seven survey visits are shown in Table 9.

Table 9. Reptile surveys dates and weather conditions

Visit Number	Date	Air temp (°C)	Wind (Beaufort Scale)	Grass snake no.		
Reptile presence/absence surveys were carried out between 17th March 2026 (deployment of mats to suitable locations with 2-week bed in period) to 13th May 2026 (final check and collection of mats).				0	0	0

1	31.3.26	12	3	None recorded		
2	7.4.26	20	4	0	0	1
3	14.4.26	11	2	1	1	0
4	17.4.26	15	2	0	0	2
5	28.4.26	11	4	None recorded		
6	6.5.26	16	3	None recorded		
7	13.5.26	11	3	None recorded		
			Total	1	1	3

Limitations

5.70. Some reptile mats (c.2) were destroyed/removed from their locations during the course of the surveys in 2026. However, research by Sewell et al (2012) found that three to four checks provide 95% confidence in determining presence/absence of reptiles, whereas a total of seven checks were carried out.

Survey Results

5.71. The data search with TVERC returned 35 records of reptiles with 1km of the Application Site, including records of adder, common lizard, grass snake and slow worm.

5.72. There are six species of reptile that are native in the UK comprising common lizard *Zootoca* vivipara, slow worm Anguis fragilis, grass snake Natrix helvetica, adder Vipera berus, smooth snake Coronella austriaca and sand lizard Lacerta agilis (with the latter two only being found in the very south of the UK).

5.73. In 2008, reptile population class assessments were completed within the Application Site as part of surveys covering Arborfield Garrison by Entec and slow worms were recorded within the woodland to the east. In 2014, the length of woodland along the northern boundary of the Application Site was identified as being suitable for reptiles by AECOM.

5.74. A large number of records are sited beyond established housing estates and farmland, with numerous records documented within more suitable habitat to the southeast (Longmoor Bog); as such, there is minimal likelihood that individuals would commute to the Application Site, especially slow worms as they are considered to have small, localized home ranges, as well as the anthropogenic barriers to dispersal and the presence of more preferable habitat closer to the records.

5.75. The Application Site still contains suitable habitat for reptiles. With the tussocky, southwest-facing grassland, with scrub edge, located to the north of the Application Site offers suitable habitat for insolation, foraging and commuting reptiles; brash piles within Application Site also offered areas of refuge. To the west of the Application Site, the open grassland with scrub edges was also identified to offer suitable foraging and basking habitats, with the SuDS pond to the south of this area offering additional foraging habitat.

5.76. Boundary scrub and woodland habitats provide a mosaic of habitats that's suitable for reptiles and can provide connectivity with the wider environment and act as corridors for individuals to migrate to/from the Application Site.

5.77. During the presence/absence surveys a total of five grass snakes were discovered with two adults and three juveniles found on site around the water tower to the northern boundary, with the rest discovered to the southeast alongside an area of woodland that connects to grassland.

5.78. It is considered that the site supports a moderate sized population of grass snakes and is of **Local** site importance. The areas where grass snakes have been found around the wood will be retained and there will be a precautionary approach to the proposed works.

Birds

5.79. TVERC returned over 500 records of 64 protected bird species (dated 2000 – 2024) within 1km of the Site. Of these records, only those species protected under Schedule 1 of the Wildlife and Countryside Act, UKBAP/NERC priority species, or Birds of Conservation Concern (Red Listed) have been considered for this report.

5.80. Nesting material and droppings consistent with those from pigeon (Columba sp.) were identified in building B16 during the PRA. A disused bird's nest was nestled amongst some ivy within an ash tree.

5.81. Overall, the Application Site offered suitable habitat for nesting birds in trees, scrub, grassland, woodland, and hedgerow habitats, as well as within on-site building the value of the Application Site for breeding birds is limited and will not be considered within **Section 6**.

Bats

Table 10: Bat Preliminary Roost Features assessment criteria

Potential suitability	Description	
	Roosting habitats in structures	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines or generate/shelter insect populations available to foraging bats).
Negligible a)	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flightpaths or by foraging bats. however, a small element of uncertainty remains in order to account for nonstandard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions b) and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site but could be used by individual hibernating bats c).	Habitat that could be used by small numbers of bats as flightpaths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by another habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that	Continuous habitat connected to the wider landscape that could be used by bats for flightpaths such as lines of

	could be used by bats due to their size, shelter, protection, conditions b) and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions b) and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flightpaths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

a) Negligible is defined as ‘so small or unimportant as to be not worth considering, insignificant’. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

b) For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

c) Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten et al., 2016 and Jansen et al.,2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of

this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

5.82. 15 buildings have been identified as suitable to support roosting bats. Of these, 3 buildings (B4, B8, and B27) have been identified as confirmed bat roosts due to the identification of droppings (B4 & B8) and historic identification of live bats (B27). Bat emergence surveys will be required to ascertain which of these structures are in use by roosting bats and to categorise any observed bat roosts to identify the species, number, and type of roost/s present. The results of the surveys will identify the scale of impacts and provide information for appropriate mitigation if required.

5.83. These surveys should adhere to current best practice guidelines and involve the use of high-quality night vision cameras in conjunction with recording ultrasonic bat detectors, all managed by trained and experienced surveyors. The surveys must be undertaken between May and August (optimal season), and September (suboptimal season) in suitable weather conditions to ensure an accurate assessment of the current use of the site by roosting bats.

5.84. To ensure the reliability of the findings, a minimum of three dusk bat emergence surveys should be conducted on the buildings with ‘High’ suitability or ‘confirmed roost’ between May and September. A minimum of two dusk bat emergence surveys should be conducted on the buildings with ‘Moderate’ suitability and a minimum of one survey on buildings with ‘low’ potential. The buildings with ‘Negligible’ or ‘None’ suitability do not require any further surveys for bats.

Emergence surveys

5.85. In line with published guidance, six low suitability buildings received one emergence survey, four moderate suitability buildings received two and five high/confirmed roosts received three emergence surveys. These surveys were carried out on the 15 buildings to determine presence/absence of bats in the buildings identified as having suitable features to support roosting bats, following recommendations from the previous PRA carried out in 2025 by Pioneer Environment Ltd.

5.86. The season for bat emergence/re-entry surveys is May to September with September being considered to be sub-optimal for maternity roosts. The bat emergence survey was conducted in May-July (optimal surveying period) and did not include September (sub optimal surveying period).

5.87. Surveyor number used per building as part of each emergence survey can be seen in Table

8.6 below. Each surveyor was equipped with an Echo Touch 2 Pro bat detector and an infrared camera, with additional cameras placed on additional PRFs separate to the surveyors, on occasion to ensure all areas of potential were covered.

- The following equipment was used for the visual assessment:
- Elevation and baseline drawings of the building or structure;
- Camera to record evidence and potential roosting sites; and
- Personal protective equipment (e.g., boots, gloves, helmet, mobile telephone as required).

5.88. The bat emergence survey dates and weather conditions were recorded, documenting temperatures, precipitation, and wind. These parameters are shown within **Table 11**.

5.89. Surveyors were positioned to observe PRFs and features covering aspects of the building and additional cameras were placed to capture created detail or additional aspects from another angle.

Table 11. Buildings suitability and Surveyor requirement

Building Number	Bat suitability	Number of surveyors	Potential roosting features
B1	Low	1	Gaps in mortar and brickwork covering south aspect
B4	High	2	Gap/hole, gap in mortar, gap in brickwork, covering north, east and west aspects.
B5	Low	2	Gaps around vent pipe to the north aspect and gaps behind bargeboard to the west aspect.
B8	High	1	Gaps in mortar, south aspect.
B9	High	2	Gaps in mortar, gaps under roof sheet, gaps around lifted tiles covering all aspect.
B10	High	1	Lifted tiles and gap in flashing covering southwest aspect.
B11	Moderate	1	Lifted tile to the north aspect.
B12	Moderate	2	Gaps in mortar north and south aspects.
B15	Low	2	Hole in cladding, to the north aspect, gap in mortar and barge boards to the west aspect.
B16	Low	4	Gaps in mortar to the east aspect, Gap in fascia to the south and gaps behind barge board to the west aspect.
B18	Low	2	Hole in cladding to the west aspect and gap in soffit to the east aspect.
B19	Moderate	1	Multiple gaps in cladding all aspects.
B27	High	6	Gaps in cladding to the north, east and south, gaps in fascia covering the north, central and south and lifted tile to the south.
B29	Moderate	1	Gaps/holes in cladding all aspects.
B24	Low	1	Central ladder access to south aspect (water tower)

5.90. Weather conditions and survey timings are summarised in **Table 12**.

Table 12: Bat Emergence survey weather conditions

Date	Buildings surveyed	Start Time	Start Air temp (°C)	End Time	End Air temp (°C)	Precipitation	Wind (Beaufort Scale)
Low Suitability							
7.5.26	B1, B5, B15, B24, B19	20:22	12	22:37	10	n/a	3
28.5.26	B16, B18, B19	20:57	21	22:36	19	n/a	3
Moderate suitability (B19 moderate suitability moved to Low 7.5.26 and 28.5.26)							
19.5.26	B11, B12, B29	20:48	14	22:33	13	n/a	5
9.6.26	B11, B12, B29	21:06	14	22:57	12	n/a	3
High suitability							
4.6.26	B4, B8, B9, B10	20:59	15	22:44	16	n/a	3
16.6.26	B27	21:05	17	22:50	16	n/a	3
25.6.26	B4, B8, B9, B10	21:09	28	22:54	25	n/a	3
7.7.26	B27 and B19	21:05	27	22:50	25	n/a	3
16.7.26	B4, B8, B9, B10	20:58	24	22:43	21	n/a	1
28.7.26	B27	20:42	25	22:23	22	n/a	2

Limitations

5.91. The following general limitations apply to bat activity surveys:

5.92. It is generally not possible to distinguish between multiple passes by a single bat or several bats passing only once each. It is also not possible to use activity-based data on echolocation calls to estimate relative abundance (i.e. the number of bats present). Consequently, it is not possible to estimate the relative population numbers of any bat species that may exploit a site for navigating and/or foraging, or how much of said habitat would be required to support a population. Therefore, activity-based data is limited to only being able to provide an overview of the species likely to be present, and possible differences between sampling locations, either on the same night, and/or over periods of time.

5.93. Activity-based data cannot distinguish the sex, age, or breeding condition of bats present. It is therefore not possible to determine whether a site is used by breeding females, or individual males. This is potentially important, because some experts have theories which suggest that male bat populations of some species are based around poorer-quality habitats, whereas female populations tend to use higher-quality habitats (Davidson-Watts, 2017, pers. comm).

5.94. Analysis of ultrasonic data, even when using experienced ecologists, is subject to interpretation. It is generally accepted that it is possible to distinguish the calls of the majority of the UK bat species, particularly those with distinctive ultrasonic signatures. However, calls of the five species of the genus Myotis should be treated with caution, because the species can be difficult to separate from one another. Where a Myotis call is recorded, professional judgement is used (including call parameters and number of calls).

5.95. The bat emergence survey on 19th May 2026 was completed under high wind (building B11, B12, B29) and as this is a suboptimal surveying condition may have reduced bat activity, resulting in inaccurate data being recorded on that night with less activity and bat calls.

Survey Results

5.96. The TVERC returned over 1,000 records of bats within 1km of the Site, with species including: barbastelle *Barbastella barbastellus*, brown-long-eared *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus,* soprano pipistrelle *Pipistrellus pygmaeus*, Nathusius' pipistrelle *Pipistrellus nathusii,* Daubenton's *Myotis daubentonii*, Natterer's *Myotis nattereri,* Leisler's *Nyctalus leisleri,* noctule *Nyctalus noctula*, serotine *Cnephaeus serotinus*, unknown *Plecotus sp.,* unknown *Pipistrellus sp*., unknown *Myotis sp*. and other unknown bat species'.

5.97. Magic Maps (DEFRA, 2025) showed 10 EPS licences for bats had been granted within 1km of the Application Site with the closest being 135m south, for the destruction of a brown long-eared and common pipistrelle bat roost.

5.98. Previous bat survey work was completed in 2006 and 2008 by AMEC and GVA Grimley/WSP

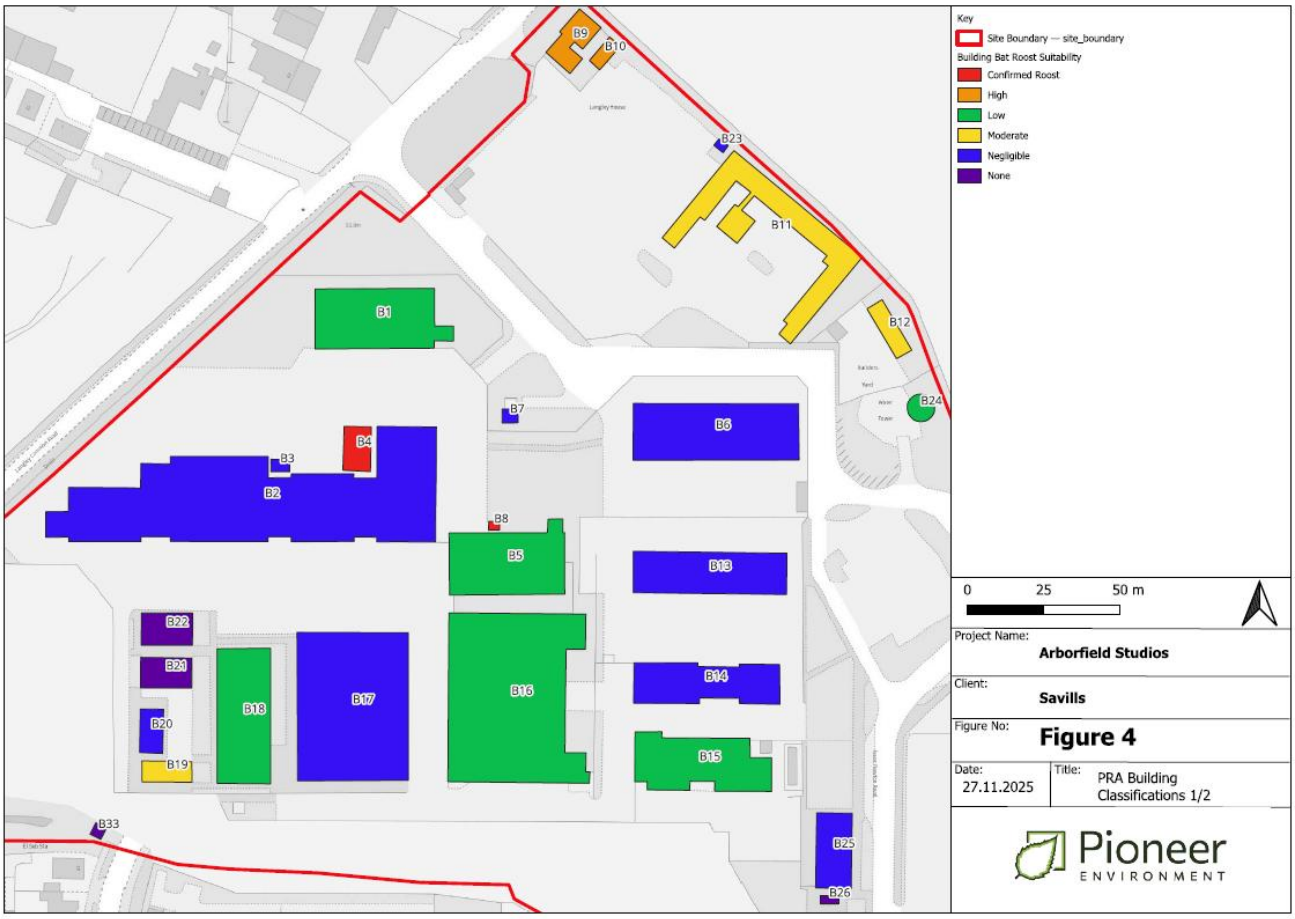
Environmental in 2012 with updated surveys being completed by AMEC covering roosting and bat activity across Arborfield Garrison, consists of multiple parcels of land, including The Application Site.

5.99. AECOM in 2014 updated bat surveys to inform a Bat Mitigation Strategy[26] for Arborfield Garrison, and during these surveys assessed the suitability of the Application Site for roosting bats and confirmed one common pipistrelle roosts (B27), one high suitability building (B9), three moderate suitability buildings (B10, B11 and B28), with the rest being low suitability. As part of the Bat Mitigation Strategy the woodland to the north of the Site is proposed to be retained to provide a commuting feature for bats as part of a dark corridor.

5.100. During the updated PRA of the 33 buildings were re-assessed for their potential to support roosting bats, this was carried out by Pioneer Environment Group Ltd in 2025. Out of the 33 buildings, 15 buildings were identified as suitable to support roosting bats. Of these, 3 buildings (B4, B8, and B27) have been identified as confirmed bat roosts due to the identification of droppings (B4 & B8) and historic presence of a live bat (B27). 2 Buildings - B9 and B10 are classed as high potential and 4 buildings, B11, B12, B19 and B29 having moderate potential, with 6 buildings B1, B5, B15, B16, B18 and B24 being low in their suitability to support roosting bats. See **Figure 4** and **5** for building location and assessed bat roost suitability.

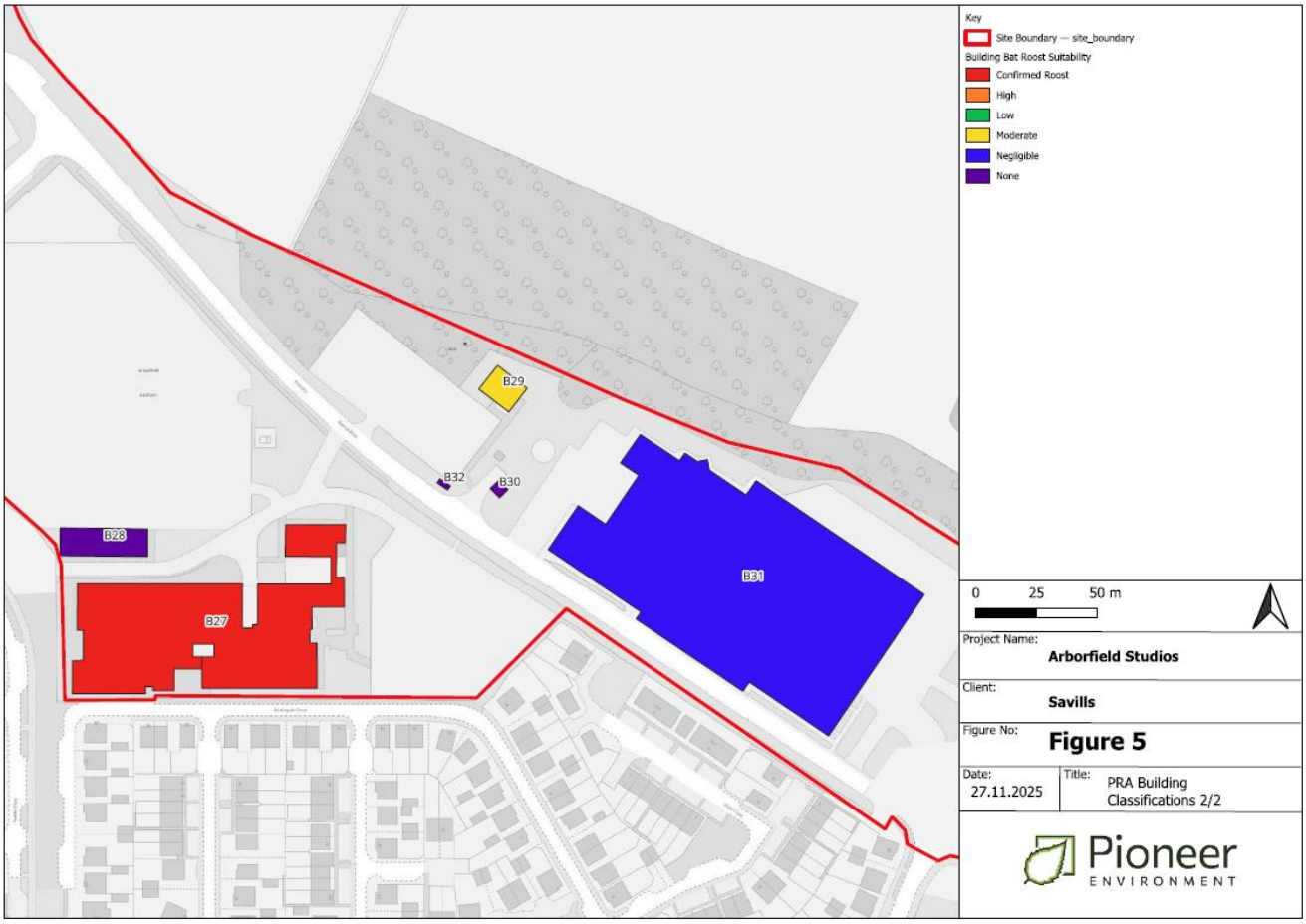
[26] AECOM (2014). *Bat Mitigation Strategy* (ES Appendix 13.4).

Figure 4. Building location and bat roost suitability[27].



[27] Pioneer Environmental Ltd. (2025). *Preliminary Roost Assessment*. Arborfield Studios.

Figure 5. Building location and bat roost suitability[28].



5.101. During the visual assessment of trees for roosting bats carried out by Pioneer Environment Group Ltd (2025), a number of trees were identified as offering potential to support roosting bats. Out of the seven trees (TN6, TN9, TN11, TN12, TN14, TN16,) only TN6 and TN16 were assessed further as they were close to proposed development, the rest of the trees are within tree protection zones.

5.102. ACD Environmental Ltd completed a bat tree visual assessment on the 18th of March 2026 to inspect an ash tree (TN6), with ivy cover being a potential roosting feature and a pedunculate oak (TN16), a dead monolith with holes, as both of these trees are located close to the development. Both trees were assessed further with the ash being recorded as being negligible and the pedunculate oak requiring an additional check if being felled.

5.103. The majority of trees will be retained and given that trees change over time and the transitory nature of tree roosts, an updated visual assessment of trees for roosting bats will be required

[28] Pioneer Environmental Ltd. (2025). *Preliminary Roost Assessment*. Arborfield Studios.

before any tree removals in any case.

5.104. The on-site habitats offered 'Low' quality foraging and commuting habitat for bats, with the surrounding habitats being more favourable (grassland, trees, and hedgerows) than the less favourable (hardstanding and commercial infrastructure) habitats and landscape features found on-site.

5.105. The location of trees identified as offering potential to support roosting bats is shown in **Figure 6**. trees

Figure 6: Trees with bat roost potential

Visual assessment of buildings

5.106. The results of the 15 buildings recorded as having potential to support roosting bat within the Application Site are recorded within **Table 13.** Out of those buildings only building B4, B9 and B19 were identified as being active bat roosts, with a common pipistrelle observed emerging from B4 on the 4.6.26 see **Image 2** below, another common pipistrelle observed emerging from B9 on the 25.6.26 see **Image 3,** and one more from B19 on the 28.5.26 **Image 4.**

Table 13. Bat roosts Identified during 2026 survey

Building Number	Bat suitability	Roost Status	Summary of results
B8	High	Confirmed 1 x common pipistrelle	Emergence recorded on the 4th of June. A bat was observed leaving the B8 from a PRF. This is due to the individual bat recorded using this roost and size and flight pattern observed as it exited the roost. Bat call analysis also supports this identification with common pipistrelle echolocations recorded.
B9	High	Confirmed 1 x common pipistrelle	Emergence recorded on the 25th of June. A bat was observed leaving the B9 from a PRF on both nights. It is thought that B9 is used as a Day roost for common pipistrelles. This is due to the individual bats recorded using this roost and size and flight pattern observed as it exited the roost. Bat call analysis also supports this identification with common pipistrelle echolocations recorded.
B19	Moderate	Confirmed 1 x common pipistrelle	Additional survey required as a bat was discovered emerging 28th of May, changing the suitability to a confirmed roost. This required an additional emergence survey completed on the 7th of July. It is thought that B19 is used as a Day roost for common pipistrelles.

Image 2. Image of a screenshot showing a Common Pipistrelle emerging from Building B4

Image 3. Image of a screenshot showing a Common Pipistrelle emerging from Building B9

Image 4. Image of a screenshot showing a Common Pipistrelle emerging from Building B19

5.107. In addition to recording roosts the dusk/dawn surveys also recorded bat activity that was present whilst observing buildings for bat emergence or re-entry. Over the 10 survey dates 7.5.26, 28.5.26, 19.5.26, 9.6.26, 4.6.26, 16.6.26, 25.6.26, 7.7.26, 16.7.26 and the 28.7.26 a large amount of data was collected, providing further information on how bats are using the site across the Application Site.

Table 14. Bat Activity Recorded During Emergence surveys

Survey Date	Buildings Surveyed	Activity Total			
		Common pipistrelle	Soprano pipistrelle	Noctule	Nauthusius' pipistrelle
07.07.2025	B1, B5, B15, B24, B19	29	5	6	0
19.05.26	B11, B12, B29	12	3	0	1
28.05.26	B16, B18, B19	9	2	27	0

04.06.26	B4, B8, B9, B10	2	0	45	0
09.06.26	B11, B12, B29	97	6	26	0
16.06.26	B27	0	0	12	0
25.06.26	B4, B8, B9, B10	25	12	53	0
07.07.26	B27 and B19	65	113	3	0
16.07.26	B4, B8, B9, B10	24	8	2	0
28.07.26	B27	85	11	10	0

5.108. The bat activity results demonstrated use of the Application Site by navigating and foraging bats with common pipistrelle being the commonly occurring species in May, followed by noctule, soprano pipistrelle and then Nauthusius' pipistrelles being the most abundant occurring species after analysis of bat acoustic data. In June noctule was the most common occurring followed by common pipistrelle, soprano pipistrelle and then Nauthusius' pipistrelles. In July common pipistrelle were most abundant followed by noctules and soprano pipistrelles. No Nauthusius' pipistrelles were recorded in July. See **Table 15** for peak bat activity results. The emergence surveys recorded the most activity along buildings B29, B4 and B27, with the buildings closest to the woodland to the north of the site being most active, this suggest that the woodland to the north is an important for commuting bats and other areas on site have moderate importance for commuting corridors.

5.109. During the dusk/dawn surveys, common pipistrelle was the most frequently recorded species in May, with a maximum count of 54 passes, noctule and soprano pipistrelle were also consistently recorded. In June noctules were most frequent with 141 passes, followed by 129 passes by common pipistrelles, 24 calls soprano pipistrelles and 3 calls recorded by

Nauthusius' pipistrelles. In July common pipistrelles were most frequently recorded species with 185 passes, followed by noctules and soprano pipistrelles. Overall, the activity results indicate moderate bat activity across the survey period, dominated by common pipistrelle and noctules with evidence of seasonal variation in activity levels among other bat species.

5.110. The results of the bat activity data are shown in **Table 15**.

Table 15. Peak activity bat survey results

Survey month	*Pipistrellus pipistrellus*	*Pipistrellus pygmaeus*	*Nyctalus noctula*	*Nauthusius'*
May	54	10	44	4
June	129	24	141	3
July	185	22	115	0

5.111. Overall, the assemblage of bats at the Site is considered to be typical of urban areas, bordering farmland within Wokingham. The assemblage and activity levels are considered to represent that the Site is of moderate value for navigating and foraging bats.

Recommendations

5.112. A total of three emergences were recorded leaving building B4, B9 and B19, providing evidence that individual roosting bats occupy these building and moderate levels of individual bat activity were recorded on-site. Roosting bats are, therefore, to be considered in the planning and activities of future work as this project progresses. The sections below outline the specific requirements to be followed to safeguard roosting, foraging and commuting bats within the Application Site.

5.113. Historically identified bat roosts located within building B27 and B8 are no longer considered to be active bat roosts. Three emergence surveys were completed to re-assess these buildings, and as no evidence of bats exiting were recorded, they are considered to no longer be active.

Timing

5.114. Given that bats were observed emerging from building B4, B9 and B19, demolition works must stop relating to those buildings, and a European Protected Species (EPS) Licence is required for common pipistrelle bat species. Until such licence has been obtained no works may be permitted to those buildings and a buffer in place.

5.115. The EPS licence will secure mitigation measures for demolition works on building B4, B9 and B19 and any other buildings within the Application Site that have a bat roost. This will include a soft strip of all suitable bat roosting features, including lifted roof tiles, and gaps around lead flashing and under soffit boarding, under the supervision of a bat licenced ecologist. The soft strip will start at the eaves moving towards the ridge in sections avoiding twisting the tiles as they are removed. All tiles are to be turned to check for bats on the underside before being discarded. Any bats found will be moved by the licenced ecologist into a woodcrete bat box provided as compensation, which will be installed on a retained tree within the Application Site prior to works commencing.

5.116. The site has **Local** importance.

Other mammals

5.117. The data search returned 33 records of hedgehogs *Erinaceus europaeus* within 2km of the Application Site. Overall, the Application Site is highly suitable for hedgehogs, and it is considered likely that hedgehogs will utilise the Application Site for commuting, foraging, nesting and hibernating within the grassland, hedgerow and scrub habitats. Hedgehogs are a UK BAP priority species and have been identified as a priority species in the Kent and Medway LNRS.

5.118. The Application Site is considered to be of Site value for hedgehogs. Mitigation to protect hedgehogs during the construction and operational phase of the proposed development is provided in Section 6.

5.119. Care must be taken during clearance/groundworks to ensure any small mammals that may be present are not harmed, and the General Measures provided in Section 6 will protect small mammals on-site during the construction phase of the proposed development.

6 ASSESSMENT OF EFFECTS AND MITIGATION MEASURES

6.1. In accordance with CIEEM guidelines, the following important ecological features have been identified with the potential to be affected by the proposed development and carried forward for further assessment:

Table 16: Important ecological features brought forward for impact assessment

Statutory sites	Thames Basin Heaths (SPA) and Longmoor Bog (SSSI)
Local Wildlife sites	None.
Habitats	Woodland, hedgerows and ponds.
Species and species groups	Reptiles, birds, great crested newts, bats, [redacted] other mammals.

6.2. The following ecological features have been scoped out of the ecological impact assessment, owning to the conclusion that no significant effects are predicted:

Table 17: Ecological features scoped out of the impact assessment

Statutory sites	None.
Non-statutory sites	All LWS.
Habitats	Modified grassland with secondary codes scattered trees (32); Other standing water with secondary code sustainable drainage system (848); Developed land; sealed surface with secondary codes scattered trees (32) and introduced shrub (847); Buildings; Artificial unvegetated; unsealed surface; Bramble scrub; and Built-up areas and gardens with secondary code vegetated garden (828).
Species and species groups	Foraging bats and Hazel dormice.

Precautionary principle

6.3. It is important to note that the current scheme design (**Appendix 2**) is illustrative only and is likely to be subject to changes in line with biodiversity net gain and ecological requirements. The following impact assessment and recommendations are based on current preliminary information and are also likely to be subject to change following further survey and scheme design updates. Therefore, this information is for internal use only and is not intended for submission to Wokingham borough Council.

Statutory Sites

The Longmoor Bog SSSI

6.4. The creation of residential dwellings within the Application Site will result in a larger residential population within the Arborfield area. This has the potential to result in an increase in visitor numbers to the nearby Longmoor Bog SSSI (and Thames Basin Heaths SPA) creating increased human disturbance to this designated site.

6.5. The development is also situated within 500m of Longmoor Bog SSSI and triggers the IRZ for this site; the SSSI IRZ specifies that new housing projects require an evaluation of potential recreational pressure on adjacent SSSIs, alongside measures to mitigate any negative impacts.

6.6. Longmoor Bog SSSI is in closer proximity to the Application Site than Thames Basin Heath SPA although it is not easily accessible by foot or car and contains a pre-existing network of public footpaths linking to a public right of way.

6.7. The mitigation measures as below for Thames Basin Heaths SPA are suitable to mitigate impacts on Longmoor Bog SSSI.

Thames Basin Heath SPA

6.8. The Application Site is within the 5km buffer zone for major developments of Thames Basin Heath SPA. This zone has been established so that recreational impacts to the species listed as qualifying species (Dartford warbler, European nightjar and woodlark) can be avoided.

6.9. A HRA is required to be carried out by the competent authority, which in this case is anticipated to be Wokingham Borough Council, to test likely significant effects on the designated features of European sites. Furthermore, it is a requirement that Natural England are consulted on the application.

6.10. A Shadow Habitats Regulations Assessment (SHRA)[29] report has been completed in relation to this European designated site in order to inform this process.

6.11. A mitigation strategy has been developed, which involves a contribution towards SANGs and is secured by a Section 106 agreement as required.

6.12. Provided the measures in this report are followed, the proposed development will comply with Core Policies CP7 and CP8 of Wokingham Borough Council Core Strategy 2010 as relating to Biodiversity and Thames Basin Heath SPA respectively.

6.13. The Development Plan-Wokingham Borough Council Core Strategy 2010[30] provides a guide to development decisions in the district until 2026.

6.14. The creation of residential dwellings within the Application Site will result in a larger residential population within the Arborfield area. This has the potential to result in an increase in visitor numbers to the nearby Thames Basin Heaths SPA, creating increased human disturbance to this internationally designated site.

6.15. Increased human disturbance upon the Thames Basin Heaths SPA could negatively affect the breeding success of the bird species for which the SPA is designated; Dartford Warbler, European nightjar and woodlark. This would occur through disturbance from increased human presence from walkers or through the direct disturbance of nesting birds by dog walkers, leading to reduced nesting success of the SPA designated bird species. Increased recreational pressure may also result in an increased risk of fires from dropped cigarettes or barbeques. Habitat degradation may also occur through trampling of vegetation and enrichment of soil by dog fouling negatively effecting heath habitat.

6.16. Natural England and other stakeholders have created the Thames Basin Heath Special Protection Area Delivery Framework. The Delivery Framework guidance determined that the Application Site prior to mitigation was likely to have negative effects resulting from increased recreational visitor pressure on the SPA would result in a near certain, long, term, local effect on a designated site of international value and would be a legislative infringement.

6.17. However, due to the increase in the residential population, it is still vulnerable to increased recreation pressure. The mire and heath vegetation within the SSSI is vulnerable to habitat degradation due to increased visitor footfall trampling the SSSIs vegetation (its designated feature) and dog walkers causing increased disturbance to faunal species such as reptiles and breeding birds. As heathland is dependent on soil having low-nutrient; enrichment by dog fouling would degrade the designated habitats within the SSSI.

[29] ACD Environmental Ltd. *Shadow Habitats Regulations Assessment.* Arborfield Studios, Langley Common Road, Arborfield.2026.
[30]Wokingham Borough Council. *Wokingham Borough Core Strategy 2010 Adopted January 2010*. Available at: https://www.wokingham.gov.uk/sites/wokingham/files/2023-06/Final%20adopted%20Core%20Strategy%20inc.%20cover.pdf

6.18. In the absence of mitigation, these effects would be considered as **adverse effect at an international scale**.

Mitigation

6.19. In terms of potential impacts in terms of recreational pressures from the proposed development and given the net increase in the number of dwellings within the 5km radius, a commitment towards Suitable Alternative Natural Greenspace (SANGs) has been agreed and will be secured by a subsequent Section 106 agreement.

6.20. A commitment has been made to deliver c.60% of the required SANG provision for the Application Site within Linear Park Phase 3 SANG and additional area within this provision. Natural England has stated the following in a consultation response dated 12th January 2026[31]:

"Whilst I am concerned about the cumulative urbanising impact within this potential bolt-on SANG, the overall beneficial effect of joining up two areas of existing SANG and providing a green infrastructure corridor in this area is one which is worth proceeding with. Natural England assess all SANGs and SANG bolt-ons on a case-by-case basis and given the existing network of SANGs in this area and the proposed direct connectivity to Hazebrock Meadows SANG, it is not required for this bolt on to provide all the criteria on the SANG checklist."

6.21. Cumulatively, this SANG includes allotments, wildflower grassland and retained trees, native tree planting, native hedgerow planting, a new pond and retained ditches. There will also be a bridleway link connecting to the Linear Park; SANG footway links connecting to SANG S2; strategic cycleway and footpath extending from the District Centre; a Neighbourhood Equipped Area for Play (NEAP) play area; and a skatepark.

6.22. The remaining c.40% of the required SANG provision for the Application Site will be provided off-site. An exact location is to be confirmed. However, this must be a consented SANG providing suitable recreational provision including a defined length of footpath and a range of habitats.

6.23. It is also important to note that there are additional mitigation measures as follows that will enhance the ecology on site but also make the development more attractive for residents:

- Open space/recreational provision onsite limiting the need for residents to venture offsite to the SPA.
- Information boards will be installed to educate and increase awareness of the Thames Basin Heath SPA and will highlight the SANGS and direct foot traffic away from sensitive areas.

[31] Oborne.E (2026) Email to Adrian Meurer, 12th January 2026

- New gardens will provide ecological value, albeit that this value is limited.
- New scattered tree planting including native berry/flower/fruit/nut/seed bearing species.
- Enhancement to the pond through the safe removal of waste.
- New drainage features that will increase the aquatic/semi-aquatic resource and will be sown with suitable wetland wildflower seed mixes.
- The habitats will cohesively link with offsite habitats and additional local SANGs, providing green corridors. This includes the proposed boundary area; hedgerows intersecting the proposed development and linking with offsite hedgerow.
- SAMM payments will be made to mitigate the impact of new housing on protected nature sites. These funds pay for ranger services, site monitoring, and educational activities to manage increased visitor pressure, protecting biodiversity from recreational harm.
- Spatial separation of 3.5km for SPA with the following measures:
- No direct habitat connections between the Application Site and the SPA.
- Closer offsite open space/recreational provision limiting the need for residents to visit the SPA.
- Invasive species must be removed in accordance with species-specific methodology.
- Nether Dartford Warbler, European nightjar or woodlark have been recorded at the Application Site across surveys undertaken since 2014.

Residual effects

6.24. These measures will ensure that the proposed development will comply with Local planning policy and that overall residual effects are **Negligible** (not significant) at an Local scale.

Woodland, hedgerows and pond

Potential impacts

6.25. The woodland, hedgerows and pond could be subject to permanent direct habitat damage in the absence of mitigation. This would result in **Moderate Adverse** (significant) effects at a Borough/District level for the woodland and a Local level for the hedgerows and pond.

Mitigation

6.26. Retention and enhancement of the woodland. This includes the woodland listed on the Priority Habitat Inventory as deciduous woodland. Enhancement of the woodland itself is a significant opportunity that will be achieved through litter picking; removal of invasive species; and measures to control access (e.g. fencing and defensive planting, which is planting to prevent access from people and domestic cats/dogs). Defensive planting must be native species such as bramble, blackthorn and native rose species (e.g. dog rose and field rose *Rosa arvensis*). Additional native ground flora/understorey planting in areas of the woodland will also be considered.

6.27. Grassland will be retained and enhanced where possible/new grassland areas within the open space provision. There are grassland areas that will be used for amenity purposes and managed with a short sward. However, there are opportunities for areas sown/overseeded with wildflower seed mixes and managed with a longer and more diverse sward, particularly to edge areas and around trees.

6.28. As part of securing Biodiversity Net Gain (BNG), the following measures will be implemented:

- New gardens will provide ecological value, albeit that this value is limited.
- New scattered tree planting including native berry/flower/fruit/nut/seed bearing species.
- Enhancement to the pond through the safe removal of waste.
- New drainage features that will increase the aquatic/semi-aquatic resource and will be sown with suitable wetland wildflower seed mixes.
- Hedgerows will be retained and enhanced (species-poor sections enhanced through additional/in-fill planting to become species-rich) insofar as possible and new sections of hedgerow will be planted. Defensive planting can be used where there are gaps/potential access points in hedgerows/shrubs.

Furthermore, new sections of hedgerow will be planted around the built environment.

- Retention and enhancement of the woodland. This includes the woodland listed on the Priority Habitat Inventory as deciduous woodland. Enhancement of the woodland itself is a significant opportunity that will be achieved through litter picking; removal of invasive species; and measures to control access (e.g. fencing and defensive planting, which is planting to prevent access from people and domestic cats/dogs).

- The habitats will cohesively link with offsite habitats to provide green corridors. This includes the proposed boundary area; hedgerows intersecting the proposed development and linking with offsite hedgerow.

Residual effects

6.29. With the above measures, the residual effects during the operational phase on the woodland, hedgerows and pond are **Moderate Beneficial** (significant). This is due to retained/enhanced/new habitats, removal of invasive species, litter picking within the woodland and clearing the pond of litter that will be secured by a HMMP/LEMP.

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Birds

Potential impacts

6.53. Birds could be subject to permanent direct habitat loss/fragmentation in the absence of mitigation. The overall impact on nesting birds is considered to be **Moderate Adverse** (significant) for species associated with farmland and **Minor Adverse** (not significant) for species associated with woodland in the long-term at a Local scale.

Mitigation

6.54. Any works requiring the removal of trees, shrubs, scrub and hedgerow should ideally be carried out outside of the main nesting bird season (the season is March - August inclusive). If works are carried out during this time, then ecological supervision is required. If any active bird's nests are found in areas for proposed works, then works should stop in the area and an appropriate buffer zone (as determined by the ecologist, usually approximately 5m) must be established around the nest and the nest left until the young have fledged. The buffer must remain intact until it has been confirmed that the young have fledged and the nest is no longer in use. However, it must be noted that, due to climate change, the season for nesting birds is no longer as predictable and care must be taken during any works outside of the main nesting bird season. The inclusion of arable field margins relates to ground nesting birds e.g. skylark. Although grassland areas are retained/enhanced, any works to these areas must also follow this advice.

6.55. A scope of bird boxes will be integrated into proposed new buildings as mitigation/enhancements.

Residual effects

6.56. In general terms, opportunities for birds will be provided through the retained/enhanced woodland, retained/enhanced/new grassland and hedgerows; new gardens; new scattered trees; enhanced pond; and new drainage features. In view of these considerations and with the above measures, the residual effects on birds are **Moderate Beneficial** (significant).

Bats

Potential impacts

6.57. Bats could be subject to permanent direct habitat loss/fragmentation in the absence of

mitigation. This would result in **Minor Adverse** (not significant) effects at a Local scale.

Mitigation

6.58. A total of three emergences were recorded leaving building B4, B9 and B19, providing evidence that individual roosting bats occupy these building and moderate levels of individual bat activity were recorded on-site. Roosting bats are, therefore, to be considered in the planning and activities of future work as this project progresses. The sections below outline the specific requirements to be followed to safeguard roosting, foraging and commuting bats within the Application Site.

Timing

6.59. Given that bats were observed emerging from building B4, B9 and B19, demolition works must stop relating to those buildings, and a European Protected Species (EPS) Licence is required for common pipistrelle bat species. Until such licence has been obtained no works may be permitted to those buildings and a buffer in place.

6.60. The EPS licence will secure mitigation measures for demolition works on building B4, B9 and B19 and any other buildings within the Application Site that have a bat roost. This will include a soft strip of all suitable bat roosting features, including lifted roof tiles, and gaps around lead flashing and under soffit boarding, under the supervision of a bat licenced ecologist. The soft strip will start at the eaves moving towards the ridge in sections avoiding twisting the tiles as they are removed. All tiles are to be turned to check for bats on the underside before being discarded. Any bats found will be moved by the licenced ecologist into a woodcrete bat box provided as compensation, which will be installed on a retained tree within the Application Site prior to works commencing.

6.61. A toolbox talk must be given to all contractors working on the Site by the supervising ecologist. This must include where bats have been found, a summary of their legal protection and safe parameters within which they may work.

6.62. No works will be undertaken over the winter months when bats are hibernating and at their most vulnerable to disturbance. Instead, works are best undertaken during either the spring or autumn months when impacts relating to disturbance are less damaging.

6.63. Work must be undertaken during daylight hours only to avoid causing disturbance when bats emerge from their roosts in the evening. Given this, the need for artificial lighting will be minimised. Where it is absolutely necessary, task lighting only (i.e. no flood lighting) will be used, which must be directional with a sharp cut off. At no stage will any artificial lighting be directed at the roofs of the building.

6.64. Additionally, due to a moderate level of activity onsite, particular care should be taken during the removal of boundary vegetation such as trees that may provide refuge for roosting bats within the site. Therefore, an updated PRA of any trees to be removed will be undertaken prior to any tree removal.

6.65. The trees with bat roosting potential identified by Pioneer Environment Group Ltd (2025) are shown as retained. Across the Proposed Development, given that trees change over time and the transitory nature of tree roosts, an updated visual assessment of trees for roosting bats will be required before any tree removals.

6.66. The following measures must be followed with regards to construction site lighting:

- Temporary lighting during the construction phase will be minimised to task related lighting only must only be used if absolutely required.
- Limits on working hours where construction activities are permitted to daylight hours, which will inherently minimise the requirement for lighting.
- Any lighting must not be left on permanently outside of normal working hours.
- Any lighting must be directed within the construction site to minimise light spill on adjacent habitats.
- If security lighting is required, it is recommended that it is motion sensitive with hooded luminaires.
- No lighting will be directed towards or in the vicinity of any mitigation and enhancements for fauna.

6.67. Lighting has been shown to have adverse effects on bats through direct avoidance of illuminated areas and increased mortality of invertebrate prey. Where inappropriate lighting occurs close to roost sites, bats may abandon their roosts or delay their emergence, which limits their foraging opportunities. Lighting a commuting or foraging route may also impact upon the integrity of the roost, even if the roost is not directly affected.

6.68. A sensitive lighting strategy must, therefore, be produced and incorporated upon completion of the Proposed Development, particularly along the site boundaries, to ensure the development does not lead to an increase of lighting over current levels around potential commuting corridors formed by the boundary vegetation.

6.69. Opportunities for navigating and foraging bats will be retained/enhanced, particularly along the woodland and along the edges of the open space. Opportunities for navigating and foraging bats will also be provided through retained/enhanced/new grassland, woodland and hedgerows; new woodland; new orchard; and new drainage features.

6.70. A scope of bat boxes will be integrated into proposed new buildings as enhancements. Bat bricks to be installed in newly built buildings (as part of construction) at a minimum density of 1 per 20 new buildings.

6.71. With the above measures, the residual effects on reptile during the operational phase have been reduced to **Moderate Beneficial** at a Site scale.

Reptiles

Potential impacts

6.72. Reptiles during the construction phase could be subject to temporary direct habitat loss/fragmentation in the absence of mitigation. This would result in at least **Minor Adverse** (not significant) effects at a Local scale

Mitigation

6.73. A sensitive clearance methodology will be applied as a cautionary approach during the construction phase. The clearance of suitable habitat will commence in reptile active season between April and September/early October, with Spring, particularly April being most suitable.

6.74. A phased approach to vegetation clearance will be followed to protect reptiles, amphibians and any other wildlife that might be present such as small mammals. This will consist of two stages. Stage one, directional cut towards the retained woodland to the north of site/area of low suitability to high, with an initial cut to 15-20cm this is to give wildlife a chance to move away.

6.75. The site will then be left undisturbed for 24 to 48 hours. This allows reptiles time to relocate. The stage two cut will be taken down to 3-5cm to ensure the habitat stays unsuitable. If any reptiles are discovered during clearance work or later on, they will be captured by an ecologist and relocated to the retained woodland.

6.76. A destructive search will begin with the careful removal of any features which may provide refuge for reptiles, such as brash piles. Such features will be teased apart by hand or by appropriate machinery and thoroughly searched to ensure no reptiles are present. Vegetation will be thoroughly searched by a suitable qualified ecologist for the presence of reptiles prior to removal, following which systematic stripping will take place with the use of an excavator with a toothed bucket. Firstly, the top few centimetres of the ground will be removed, to expose reptiles sheltering in crevices just below the surface.

6.77. Ecologists would be positioned to catch reptiles as they are disturbed. Following this, larger and deeper excavations will be made, concentrating on areas which afford shelter to reptiles, such as tree stumps, debris and grass tussocks. Particular care will be taken when emptying the bucket in case any reptiles are dug up with the soil.

6.78. Given that some reptile species spend a great deal of time underground, habitat manipulation can be less effective at sites containing buried material and other debris, therefore it is likely that reptiles (particularly slow worms which are largely subterranean) will also be found during the destructive search. Even when carried out using experienced contractors and ecologists, destructive searches may kill or injure a small percentage of animals (perhaps 0-5%) and the lawfulness of this method requires careful interpretation. Hence why the destructive search is typically carried out after other methods (i.e. trapping) have been used.

6.79. In addition, good construction practices should be followed. This includes the general measures as above in relation [redacted] e.g. fencing/signage and managing excavations. Furthermore, in the event any protected species (including reptiles) are found when the ecologist is not in attendance, works must stop, they must not be handled and ACD Environmental Ltd contacted in the first instance.

6.80. The Site will provide a range of opportunities for reptiles including retained/enhanced/new grassland including a wildflower area managed for biodiversity; retention and enhancement of the onsite ponds and retention of woodland scrub/tall ruderal habitat; new gardens; and drainage features with suitable wildflower and wetland planting.

6.81. A scope of log piles will be incorporated along the woodland edge and adjacent to the enhanced pond providing opportunities for amphibians (including great crested newt), hedgehog, invertebrates (including solitary bees) and reptiles.

Residual effects

6.82. With the above measures, the residual effects on reptile during the operational phase have been reduced to **Negligible**. This takes into account the reptile navigating and foraging habitat will be retained and areas around the ponds will be maintained to support reptiles. However, there will be continued opportunities for hibernacula, navigation and foraging for reptiles in the long-term. This will be secured by a HMMP/LEMP.

Great crested newts

Potential impacts

6.83. Great crested newt (if present) could be subject to temporary direct habitat loss/fragmentation in the absence of mitigation. This would result in at least **Minor Adverse (not significant)** effects at a Local scale.

Mitigation

6.84. There are no ponds onsite and offsite that had positive eDNA result for great crested newts, despite suitable ponds being present and terrestrial habitats there was no record of great crested newts. It is considered that great crested newts are not using the ponds onsite or offsite within 500m of the Application Site to breed and are considered to be absent.

6.85. Although there are therefore no recommendations specifically in relation to great crested newt, recommendations relating to other species and good construction practices should be followed. This includes the general measures as above in relation [redacted] e.g. fencing/signage and managing excavations. Furthermore, in the event any protected species (including great crested newt) are found when the ecologist is not in attendance, works must stop, they must not be handled and ACD Environmental Ltd contacted in the first instance.

6.86. The ponds onsite, currently have litter surrounding them. This waste will be safely removed and tidied during the construction phase to allow the pond to return to functioning as a pond. This represents a straightforward and significant enhancement.

6.87. A scope of log piles will be incorporated along the woodland edge and adjacent to the enhanced pond providing opportunities for amphibians (including great crested newt), hedgehog, invertebrates (including solitary bees) and reptiles.

Residual effect

6.88. With the above measures, the residual effects on great crested newt during the operational phase have been reduced to **Negligible**. This takes into account that The Site will register under the NatureSpace District Licencing Scheme, and the main navigating and foraging habitat will be retained and enhanced. However, there will be continued opportunities for navigating and foraging in the long-term. This will be secured by a NatureSpace District Licencing Scheme, HMMP/LEMP.

Other mammals

Potential impacts

6.89. The Application Site is considered highly likely to support hedgehogs and other small mammals e.g. rodents.

6.90. Construction activities have the potential to disturb, injure or kill hedgehogs and other mammals in the absence of mitigation.

Mitigation

6.91. Sensitive vegetation clearance in order to safeguard protected species e.g. reptiles, dormice, etc. will also protect hedgehogs and other small mammals during construction works. The general measures outlined below will also protect any small mammals that may enter the Application Site during the construction phase.

6.92. Moreover, the proposed infill planting of hedgerows, new hedgerow, tree and scrub planting, will minimise net loss of habitats suitable for these species. The enhancement measures recommended for the benefit of invertebrates will also benefit hedgehogs through provision of invertebrate prey.

Residual effects

6.93. With implementation of the measures detailed above, the overall residual effect on invertebrates is likely to be neutral.

Table 18: Impact summary table

Feature	Scale of importance	Impact (before mitigation)	Type of impact (construction or operational)	Effect (without mitigation)	Mitigation	Residual effect
Thames Basin Heaths (SPA) Longmoor Bog (SSSI)	International	Permanent degradation SPA Visitor pressure with		Moderate adverse	SANG, Retention and protection during construction phase Enhancement to include improved scrub and woodland management Information packs provided to new residents	Neutral
Woodland, hedgerows and ponds	Local	Damage to habitats by personnel or heavy machinery Permanent degradation and loss of habitat	Construction and operational	Moderate adverse	Protection of retained habitats New planting to include infill hedgerow planting, tree and scrub planting	Moderate beneficial
Reptiles	Site	Potential harm to individuals/ populations during clearance to suitable habitat	Construction and operational	Minor adverse	Sensitive clearance of grassland and scrub under the supervision of an ecologist	Negligible
Birds	Site	Disturbance to breeding birds and loss of suitable nesting habitat Accidental damage/disturbance of nests	Construction and operational	Nesting birds Moderate adverse Farmland minor adverse	Sensitive habitat clearance outside of nesting bird season/ nesting bird check by an ecologist Compensation in the form of bird boxes to be installed on existing mature trees and into new buildings	Moderate beneficial

Bats - roosting	Local	Loss of bat roosts via habitat loss Temporary and/or permanent disturbance to bat roosts via light spill	Construction and operational	Minor adverse	Preliminary bat roost assessment of building and pre-felling inspections of trees to be removed EPSL (if required) Sensitive lighting scheme Compensatory bat boxes to be incorporated into new buildings	Moderate Beneficial
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Hedgehogs and other mammals	Site	Potential harm to individuals during habitat clearance and construction Loss of nesting, commuting and foraging habitat	Construction and operational	Negative at site level	Sensitive vegetation removal Hedgehog highways within gardens to maintain site access and connectivity Provision of log piles	Neutral
Great crested newts	Site	Potential harm to individuals during habitat clearance and construction	Construction and operational	Minor adverse	Sensitive clearance of grassland and scrub under the supervision of an ecologist Naturespace Licence	Negligible

7 CUMULATIVE EFFECTS

7.1. This section of the EcIA assesses the ecological effects of the proposed development cumulatively with the ecological effects of other developments that have either received planning permission or are the subject of a planning application which has not yet been determined.

7.2. There are developments in the local area of the Application Site which are pending approval or have been approved and have the potential to result in cumulative ecological effects. These applications include but are not limited to:

Barkham Square

7.3. A number of sites require consideration in terms of cumulative effects in the broader ES. However, of particular relevance in terms of ecology is Barkham Square as it is directly adjacent to the Site to the northeast.

7.4. Provided that each of these sites carries out their own process in terms of HRA and SANGs delivery/contributions as appropriate, impacts on Thames Basin Heath SPA/Longmoor Bog SSSI should be appropriately addressed.

7.5. Although there are direct habitat connections through shared site boundaries with the Site and Barkham Square, there are limited considerations in terms of species that may navigate and forage along these boundaries (e.g. hazel dormouse); however, bats do require further consideration. Provided that the scheme at Barkham Square delivers a buffer of at least 15m with the ancient woodland between the two sites and retains the line of trees elsewhere along the shared boundary as currently shown, a suitable green corridor will be maintained and continue to provide opportunities for navigating and foraging bats. Furthermore, there are no [redacted] currently onsite and the pond (with opportunities for great crested newt and other amphibians) is shown as retained.

Wider Committed Development

7.6. Other potential developments subject to planning applications in relation to cumulative assessment are shown in Chapter 5 – Approach to Assessment.

7.7. There is the potential for offsite developments to negatively impact the Site and its habitats. There is potential for territories/ranges of protected species generally to overlap with other proposed developments e.g. birds and bat.

7.8. However, there is a mitigation strategy onsite that retains/enhances opportunities onsite and provided that each of these sites carries out their own process in terms of HRA and SANGs delivery/contributions as appropriate, impacts on Thames Basin Heath SPA/Longmoor Bog SSSI should be appropriately addressed.

7.9. Furthermore, schemes will need to deliver BNG, remove invasive species, follow pollution prevention measures and secure relevant protected species licences (as required).

Cumulative Effects

7.10. When the above proposals are assessed cumulatively, there is the potential that increased visitor pressures will impact on nearby designated sites.

7.11. As discussed in **Section 6**, a HRA and consultation with Natural England will be required. In addition, financial contributions will be required per dwelling in line with the SAMMS.

8 BIODIVERSITY NET GAIN

Biodiversity metric

8.1. The Statutory Biodiversity Metric has been completed and is available as a standalone report.

8.2. This has been calculated using baseline habitat and species information collected during the UK Habitat Classification Survey on 10th of July 2026th and using the latest post-development landscape proposals.

Table 19. A summary of the results of the Statutory Biodiversity Metric.

On-site baseline	Habitat units	15.18
	Hedgerow units	6.33
	River units	1.88
On-site post-intervention	Habitat units	30.05
	Hedgerow units	7.10
	River units	2.15
Total net unit change	Habitat units	14.87
	Hedgerow units	0.77
	River units	0.27
Total net % change	Habitat units	97.92%
	Hedgerow units	12.12%
	River units	14.28%

8.3. The results of the Statutory Biodiversity Metric indicate that development of the Application Site will lead to a 14.87 (97.92%) net gain in habitats, 0.77 (12.12%) net gain in hedgerows and a 0.27 (14.28%) net gain in river units. This is predominantly due to the site being mainly urban in nature, being replaced by vegetated planting, garden and woodland enhancement in the proposed development.

8.4. The following habitat creation measures have been incorporated within the landscape masterplan and are included within the Statutory Biodiversity Metric calculations. For details on locations of these habitats please refer to the habitat creation plan which is presented within Appendix 2.

- Inclusion of vegetated garden within the curtilages of the new dwellings. Areas will be planted with specimen shrubs, hedgerows and tree planting. However, due to them being within the dwelling curtilage, they are not accounted for within the biodiversity metric in line with the guidelines.

8.5. The following habitat and hedgerow enhancement and creation measures are recommended to maximise biodiversity net gains:

- Retention and enhancement of the woodland, hedgerow and tree network. Enhancement measures will include infill planting with at least five woody species and filling of gaps to create an extensive and diverse network of 'species-rich native hedgerow'. Enhancement of hedgerows may also include buffer planting with long grassy margins and native scrub.

- Inclusion of wildflower grasslands within POS to create 'other neutral grassland' habitat.

- Inclusion of new native trees within the Application Site within POS and the street-scene.

8.6. In addition to habitat creation and enhancement measures, habitats within the POS of the Application Site will be managed by a management company during the operational phase of the development. Management prescriptions will be included within a post-consent LEMP and will be designed to ensure long-term maintenance and enhancement of ecologically valuable habitats within the development.

Additional enhancements

8.7. In addition to the habitat enhancements outlined above which have been recommended to increase biodiversity on site and net gains, the following enhancement is recommended to provide new opportunities for wildlife:

Hedgehogs and other mammals

- The development will contain a number of new gardens, which will provide habitats for hedgehogs which are a UK BAP priority species. To ensure hedgehogs are able to utilise the new garden habitats, closed board fencing will include a small hole (13cm x 13cm) cut into the base of the panel to facilitate hedgehog movement by creating a 'hedgehog highway'. This size gap is too small for most pets to fit through; but to encourage residents not to block holes signs can be placed above the gaps to illustrate their purpose.

9 CONCLUSIONS

9.1. The Application Site is located adjacent to the Arborfield Garrison SDL, with a survey area of approximately 13.1ha, and includes three large filming stages, office buildings, workshops, and backlots; additional buildings, hardstanding, and areas of greenspaces are also present across the Site. Two parcels of Ancient & Semi-natural Woodlad were identified adjacent to the Site; additionally, a large section of the woodland on-site was identified as a 'deciduous woodland' Habitat of Principal Importance.

9.2. Taking into consideration the results of the baseline ecology surveys, the following ecological receptors are scoped into the assessment:

<u>Statutory designated sites</u>

- Thames Basin Heaths Special Protection Area SPA.
- Longmoor Bog SSSI

<u>Habitats</u>

- Woodland broadleaved.
- Woodland mixed deciduous.
- Ponds.
- Hedgerows.
- Invasive species.

<u>Protected species</u>

- Bats.
- [redacted]
- Great crested newt.
- Reptiles.
- Birds.

9.3. Based on the assessment, likely significant effects range from Major adverse (significant) to Minor Adverse (not significant) prior to additional mitigation.

9.4. In terms of habitats, a range of construction phase additional mitigation measures are proposed (e.g. pollution prevention and fencing and signage). Retention and enhancement of the woodland. This includes the woodland listed on the Priority Habitat Inventory as deciduous woodland. Enhancement of the woodland itself is a significant opportunity that will be achieved through litter picking; removal of invasive species; and measures to control access (e.g. fencing and defensive planting, which is planting to prevent access from people and domestic cats/dogs). Defensive planting must be native species such as bramble, blackthorn and native rose species (e.g. dog rose and field rose Rosa arvensis). Additional native ground flora/understorey planting in areas of the woodland will also be considered.

9.5. Grassland will be retained and enhanced where possible and new grassland areas within the open space provision. There are grassland areas that will be used for amenity purposes and managed with a short sward. However, there are opportunities for areas sown/overseeded with wildflower seed mixes and managed with a longer and more diverse sward, particularly to edge areas and around trees.

9.6. In terms of protected species, a range of construction phase measures are proposed (e.g. managing excavations and nesting bird checks). Habitats on site such as the woodland will be retained and enhanced to provide opportunities for protected species in the operation phase. A suite of enhancements are also recommended (e.g. bat/bird boxes).

9.7. As a result, residual effects reduce to between **Negligible** (not significant) and **Moderate Beneficial** (significant).

APPENDIX 1: BASELINE HABITAT MAP

Legend

- Site boundary
- SuDS
- Lowland Mixed Deciduous Woodland
- Modified Grassland
- Bramble Scrub
- Introduced Shrub
- Vegetated Gardens
- Artificial Unvegetated; Unsealed Surface
- Developed Land; Sealed Surface
- Buildings
- Line of Trees
- River
- Baseline trees

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Map	Baseline Habitats Map (1 of 2)
Site	Former Arborfield Studios
Client	Crest Nicholson Operations Ltd
Date	29/07/2026

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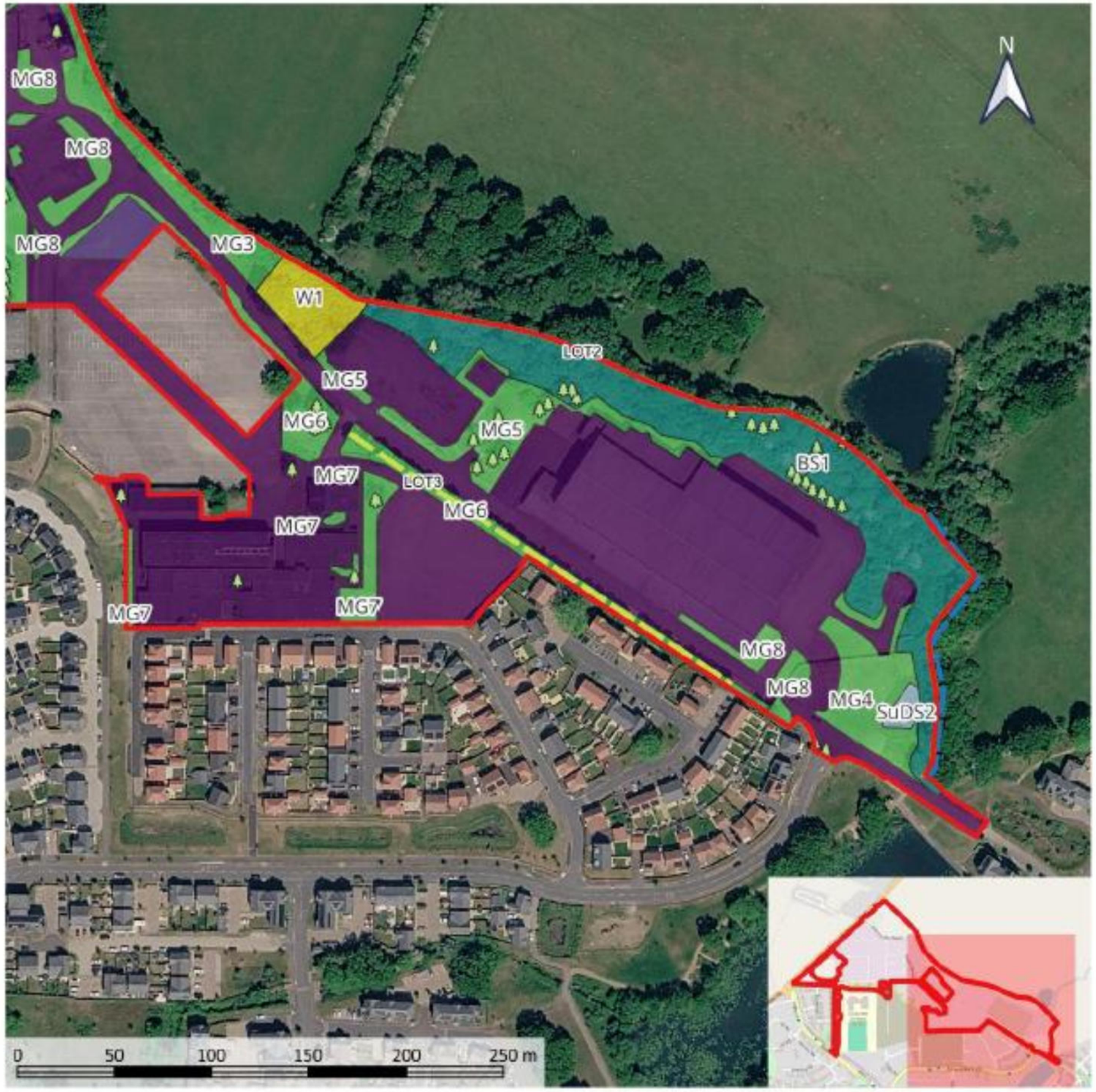

Legend

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Site	Former Arborfield Studios
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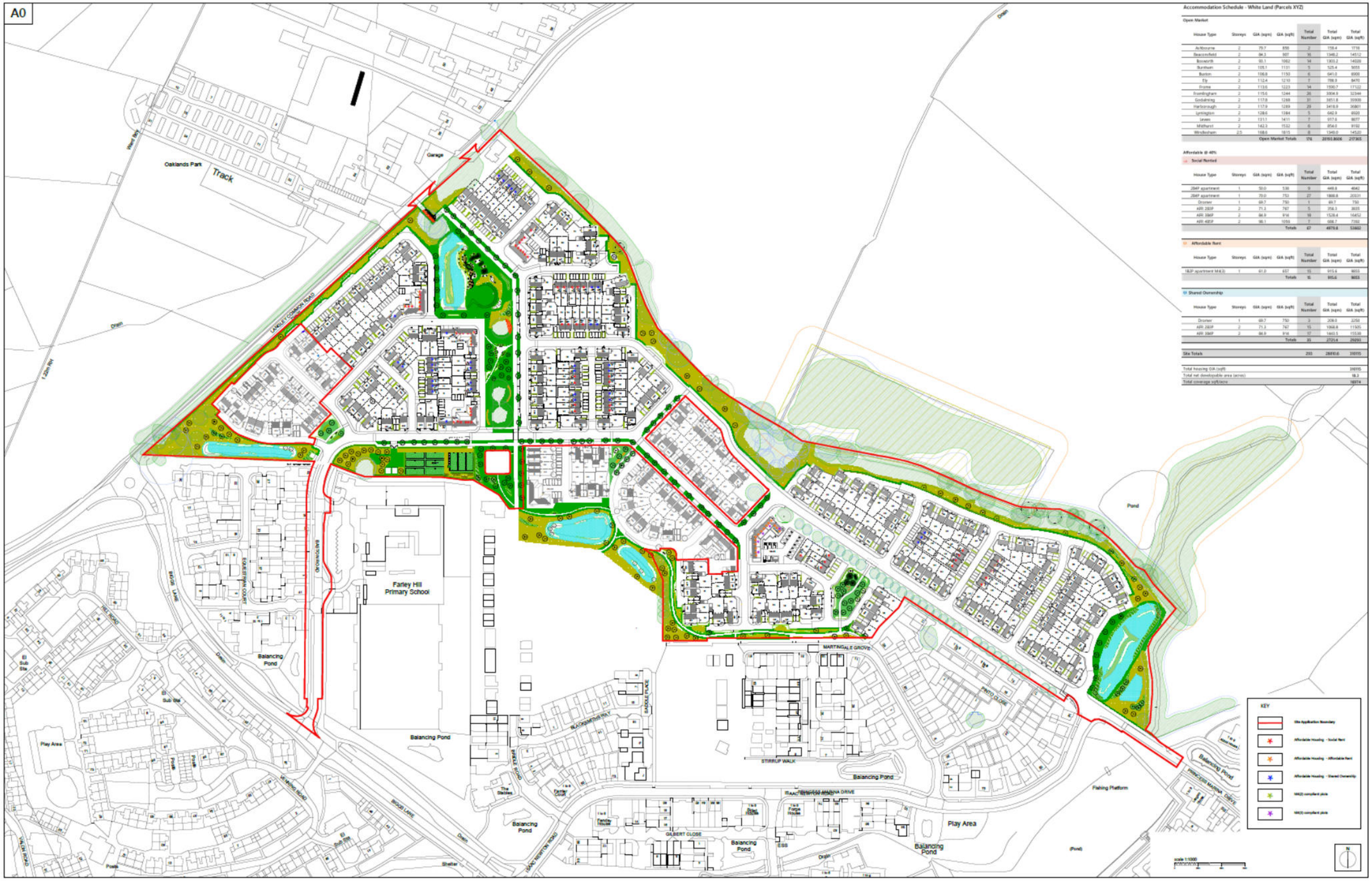
APPENDIX 2: PROPOSED SCHEME



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