

8 Ecology

8.1 Introduction

8.1.1 This Chapter has been prepared by ACD Environmental Ltd and assesses the likely significant effects regarding ecology for former Arborfield Studios (Parcels W, Y and Z), Arborfield Green. A likely significant effect is a positive or negative ecological effect that should be taken into account in judging whether to authorise a project. It is relevant to whether permission is given or refused and, if given, whether the effect is important enough to warrant conditions, restrictions or further requirements such as monitoring.

8.1.2 This Chapter is supported by the following appendices and/or figures:

- Preliminary Ecological Appraisal – EcoSupport Ltd, 2026 (**Appendix 8.1**).¹
- Preliminary Roost Assessment - Pioneer Environment Group Ltd, 2025 (**Appendix 8.2**).²
- Shadow Habitat Regulations Assessment (SHRA) (**Appendix 8.3**)
- Ecological Impact Assessment (EclA) (**Appendix 8.4**)

8.1.3 This Chapter, and its associated appendices, is intended to be read as part of the wider Environmental Statement (ES) with particular reference to the Introduction (Chapter 1), as well as Climate Change and Greenhouse Gases (Chapter 07), Noise and Vibration (Chapter 10) and Hydrology (including Flood Risk and Drainage) (Chapter 12).

8.1.4 The Site is located within the village of Arborfield Green 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. The existing habitats are shown within **Appendix 8.1**.

Legislation and Planning Context

Legislation

8.1.5 The following pieces of legislation are of particular relevance to this assessment:

- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Of the protected species discussed below, bats and great crested newt *Triturus cristatus*, are protected under this legislation as European Protected Species (EPS); and there are measures requiring protection of wild birds and populations can be qualifying features of a Special Protection Area (SPA).

¹ EcoSupport Ltd. *Preliminary Ecological Appraisal*. Former Arborfield Studios (Parcels W, Y, and Z), Arborfield Green. (2026)

² Pioneer Environment Group Ltd. *Preliminary Roost Assessment*. Arborfield Studios. PEG659-02B (2025).

- ## Planning Policy Context

8.1.6 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.

- “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:*

- 8-2

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".

8.1.8 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”.

8.1.9 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”.

8.1.10 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.

8.1.11 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”.

8.1.12 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".

Local Policies

8.1.13 The Wokingham Borough Council Local Plan 2010³ is the adopted local plan and currently governs development decisions in the district.

8.1.14 Policy CP7 related to 'Biodiversity' and states the following:

"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:

- a) Which may harm county designated sites (Local Wildlife Sites in Berkshire), whether directly or indirectly, or*
- b) 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*
- c) That compromises the implementation of the national, regional, county and local biodiversity action plans*

³ 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>

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:

- i) Mitigation measures can be put in place to prevent damaging impacts; or*
- ii) Appropriate compensation measures to offset the scale and kind of losses are provided.*

4.40 SEP [South East Plan] Policy NRM5 (criterion iii) recognises that the need to protect European sites from likely significant effects could mean that housing targets in Policy H1 are not achievable. The Habitats Regulations Assessment (see paragraph 2.67) indicates that the development currently envisaged through the Core Strategy can be delivered without likely significant harm upon any European sites (either on their own or in-combination with other plans or projects). However, the Council will assess each plan or project in line with NRM5 to confirm that they can be delivered without likely significant harm (either on their own or in-combination with other plans or projects).

4.41 The need for a development that affects a Site of Special Scientific Interest will be deemed to outweigh the need to safeguard the nature conservation interest where the development has clear social or economic benefits of national importance. The need for a development that affects Local Wildlife Sites, habitats or, species of principal importance in England for nature conservation, ancient woodland, veteran trees or features of the landscape that are of major importance for wild flora and fauna will be deemed to outweigh the need to safeguard the nature conservation interest where the development has clear social or economic benefits of regional or national importance.

4.42 The conservation of sites designated as important to nature conservation, habitats or species of principal importance in England for nature conservation and features of the landscape that are of major importance for wild flora and fauna are essential for the maintenance of the area's biodiversity and the quality of life of the borough's residents. All developments should take account of the biodiversity, and where possible developments should contribute to the enhancement of the borough's biodiversity. The Wokingham District Biodiversity Action Plan highlights targets where proposals can contribute towards their achievement and the Council has identified a number of Biodiversity Opportunity Areas (in line with SEP Policy NRM5) that are priorities for the maintenance, restoration and creation of priority habitats. Biodiversity Opportunity Areas have the highest concentration of existing ecological sites e.g. Local Wildlife Sites. Consequently, in these areas, measures to support and enhance biodiversity are most likely to deliver benefits. Thames Valley Environmental Records Centre surveyed the borough for potential Biodiversity Opportunity Areas during the 2007/08 financial year. Information on biodiversity within the Borough can be obtained from the Thames Valley Environmental Records Centre (TVERC). Further details on the level of protection appropriate to international, national and local sites are detailed in PPS9 (including the accompanying Good Practice Guide), ODPM Circular 06/2005 and SEP Policies NRM5 and NRM7. Where a proposal is likely to have a significant effect upon a Natura 2000 site, the authority will expect the applicant to supply it with sufficient information to demonstrate how these impacts will be avoided.

4.43 The Managing Development Delivery DPD will provide further details on the application of this policy. The Berkshire Nature Conservation Forum advises on the boundaries of Local Wildlife Sites (formerly Wildlife Heritage Sites), including deletions, additions and amendments. Consequently, they may change from the current ones defined in WDLP Policy WNC5 (as amended by the Council decision on 27 July 2006). Details of international, national, regional and county biodiversity sites are available on the Council's website."

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

“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.

4.44 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.

4.45 Having regard to the findings of Natural England’s visitor surveys, SEP Policy NRM6 and the Delivery Framework, the authority (in the Appropriate Assessment) concludes that residential proposals involving increases of one or more net additional dwelling within 5km (linear) of the SPA will need to be assessed for whether there is likely to be significant impacts. This distance covers 70% of all visitors. Furthermore, within the area from which 80% of visitors come (equates to 7km linear), the Appropriate Assessment recognises that proposals of 50 dwellings or more dwellings will need to be assessed for whether they are likely to generate significant impacts. The Appropriate Assessment indicates that as all of the SDL (policies CP18-21) propose at least 50 dwellings within 7km of the TBH SPA, they are likely to have a significant affect upon the site. Where residential schemes include avoidance and mitigation measures, the likely significant effects upon the TBH SPA will have been addressed.

4.46 Whilst each SDL will include their own measures to avoid the significant impacts upon the TBH SPA, the Council recognises that other schemes for residential development will come forward before 2026 on sites where a likely significant impact without avoidance measures would occur. The Council is working with the National Trust to deliver an impact avoidance site at Simons Wood, Wellingtonia Avenue, Crowthorne. This site will function as part of a suite of Suitable Alternative Natural Greenspaces (SANG) within the borough, alongside those of the SDL. The Simons Wood SANG will be complimented by other sites identified in the Managing Development Delivery DPD to avoid the impacts of development on the TBH SPA.

4.47 The Council recognises that Gorrick Plantation, Nine Mile Ride, Crowthorne contains populations of Woodlarks and Nightjars. The density of nightjars in every year from 1999 to at least 2004 has been higher than any part of the SPA. In the review of Natura 2000 sites expected between 2008 and 2010, the Joint Nature Conservation Committee may conclude that Gorrick Plantation should be included within a Special Protection Area. Whilst its potential inclusion may affect the ability to deliver residential schemes on sites to be identified in the Managing Development Delivery DPD, it will however not affect the SDL around Wokingham as the impact avoidance measures to address the issues associated with the TBH SPA, will also apply in the event that Gorrick Plantation is designated. Pending the Joint Nature Conservation Committee’s review of Natura 2000 sites, the Council in line with the requirements of the Wildlife and Countryside Act 1981 will consider the impacts of development on the Habitats Directive Annex 1 birds (Nightjar and Woodlark) at Gorrick Plantation under policy CP7 and SEP Policy NRM5.

4.48 In line with the findings of the Appropriate Assessment, it is recognised that non-residential development could also have a significant effect upon the SPA. This could either be from linked trips including a recreational use of the SPA53 or from workers employed close to the SPA using the area during breaks (especially lunch time). Consequently, proposals for non-residential development will also need assessing for whether they are likely to have a significant

effect upon the SPA. Where non-residential schemes include avoidance and mitigation measures, the likely significant effects upon the TBH SPA will have been addressed.

4.49 The Appropriate Assessment indicates that to ensure that development avoids its likely significant impact upon the SPA, the following principles will apply:

(i) Dwellinghouses and other residential development (including staff accommodation in use class C2) will need to provide avoidance and mitigation measures where:

a. The proposal involves the provision of one or more net additional residential unit and is within 5km (linear) of the SPA. Contributions to on site SPA access management measures and monitoring in line with the Delivery Framework will be required together with provision of SANG at a minimum of 8ha/1,000 population (calculated at a rate of 2.4 persons per household). This monitoring includes the effectiveness of the SANG;

b. The proposal provides 50 or more residential units within 7km (linear). In this case, the proposal will be individually assessed for whether a significant effect upon the SPA is likely either on its own or in combination with other plans or projects around the site. Where avoidance and mitigation measures are required to address likely significant effects, this is likely to involve SANG together with funding towards monitoring the effectiveness of the solution agreed;

c. There is a 400m exclusion zone from the SPA for any net additional dwellings due to the inability to avoid likely significant effects upon the SPA.

(ii) SANG to be provided and maintained in perpetuity in line with the quality and quantity standards advocated by Natural England. The size and location of SANG contributes towards the delivery of healthy communities in line with advice from the Department of Health and NICE. In order to ensure access to avoidance sites in perpetuity, the Council's preference is for the authority to own any SANG. Where SANG also meets the definition of open space (see Appendix 4), it can also count towards this provision i.e. at least 1 ha/1,000 of the SANG could also contribute towards the Natural Greenspace requirement and vice versa; and

(iii) Non-residential development will be individually assessed for their likely significant effects. Where avoidance and mitigation measures are required, monitoring of their effectiveness will be necessary."

8.2 Assessment Methodology

Scope

8.2.1 Taking into consideration the results of the baseline ecology surveys, it is proposed that the following ecological receptors will be scoped into the assessment:

Statutory designated sites

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

8.2.2 They represent highly sensitive environmental receptors legally protected due to their ecological, geological, or landscape importance:

Habitats

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

- 8.2.3 To comply with legal protections, evaluate significant impacts on biodiversity, and enable early design changes to avoid ecological damage

Protected species

- Bats.
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- Great crested newt.
- Reptiles.
- Birds.

- 8.2.3 To meet strict legal requirements, ensure biodiversity protection, and identify necessary mitigation measures before development consent is granted the.

- 8.2.4 It is proposed that the following ecological receptors be scoped out of the assessment, because they have been proven to be absent from the Site or impacts are considered unlikely: hazel dormouse (largely developed land and limited habitat opportunities; and otter and water vole (no aquatic habitat on-site).

- 8.2.5 Non-statutory designated sites are also scoped-out due to the distance from the Site and open space provision providing recreational opportunities within the Proposed Development. The Proposed Development includes the provision of public open space, Suitable Alternative Natural Greenspace (SANGs) and play areas. This will provide recreational opportunities onsite and limit the need for residents/staff within the completed development to venture offsite for recreation.

Predicting Effects

- 8.2.6 The overall effect of the Proposed Development on each given feature will be considered in relation to the baseline data and the various impacts expected to occur. An assessment will then be made as to whether this effect is likely to be significant or not.

- 8.2.7 'Significance' is the descriptive measure of the nature of an effect for the purpose of making decisions. For the purpose of the assessment, an effect either furthers biodiversity conservation objectives for important ecological features (habitats, species ecosystems and their functions/processes) (a positive/beneficial effect) or runs counter to those objectives (a negative or adverse effect). Effects can be considered significant at a wide range of scales, from International to Local.

- 8.2.8 A likely significant effect is a positive or negative ecological effect that should be taken into account in judging whether to authorise a project. It is relevant to whether permission is given

or refused and, if given, whether the effect is important enough to warrant conditions, restrictions or further requirements such as monitoring.

8.2.9 A matrix approach to significance criteria is commonly used in Environmental Impact Assessment (EIA) by practitioners in disciplines other than ecology. In many cases, its use is required to ensure consistency across all the topics of an ES. However, the Chartered Institute of Ecology and Environmental Management (CIEEMs) Guidelines for Ecological Impact Assessment⁴ avoids and discourages the use of a matrix approach. In the context of such a matrix, the term 'magnitude' covers different characteristics of an impact such as extent, duration, frequency, timing and reversibility as well as magnitude in the sense of size, amount, intensity and volume. The use of 'magnitude' in an aggregate term obscures the ecological detail needed to understand the actual outcome. For example, non-significant impacts on a SSSI could be assessed as being of 'moderate' significance, as could the total loss of a locally important population of a Natural Environment Research Council Section 41 (NERC S41) species of principal importance.

8.2.10 In relation to this, the magnitude of a significant effect is quantified regarding habitats as the Statutory Biodiversity Metric quantifies habitat losses/gains/enhancements (expressed as units and percentages). The terms minor, moderate, major, etc will be used alongside this quantifiable approach.

Geographic Scope

8.2.11 The importance of an ecological feature is considered within a defined geographical context. The following frame of reference will be used:

- International and European.
- National.
- Regional.
- County.
- Local.

8.2.12 Different ecological features may be affected at different geographical scales. With off-site habitats, that are privately owned or and have no public access resulting in a slightly affected rather than off-site designated sites of international or national importance that may be sensitive to impacts such as an increase in recreational activities.

8.2.13 Thames Valley Environmental Records Centre (TVERC) was asked to provide records of protected, rare and/or priority species and details of statutory and non-statutory designated sites, within the Site and within a 1km radius of the Site boundary. The Multi Agency Geographic Information for the Countryside (MAGIC)⁵ website was also used to identify European sites within a 5km radius and national sites within a 1km radius. The Magic website was also used to identify ponds within the site and 500m radius from the Site boundary.

⁴ Chartered Institute of Ecology and Environmental Management (CIEEM) (September 2019). *Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater and Coastal, Version 1.1. updated September 2019*. CIEEM, Winchester.

⁵ Multi Agency Geographic Information for the Countryside [online]. Available at: <https://magic.defra.gov.uk/>

Temporal Scope

- 8.2.14 Both short-term (i.e. significant effects occurring during the Site clearance and construction phases) and long-term significant effects during the operational phase will be considered.
- 8.2.15 For the project an assessment of the ecological receptors on site have been made prior to the planning application. Ecological receptors will continue to be assessed as the different phases of the development are brought forward.

Consultation

- 8.2.16 Consultation regarding the provisions for a Suitable Alternative Natural Greenspace (SANGs) was discussed with Natural England prior to this submission and are anticipated to continue throughout the life cycle of this application to ensure full compliance with policy, guidance and environmental legislation. It has been agreed that the SANGs will be secured by a subsequent Section 106 agreement.

- 8.2.17 Natural England has stated the following in a consultation response dated 12th January 2026:

“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.”

- 8.2.18 In response 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.
- 8.2.19 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. The SANGs and other provisions are detailed within (**Appendix 8.3**).

Assumptions and Limitations

- 8.2.20 In general terms, the Site has been subject to a broad range of surveys since 2006 as part of the Arborfield Garrison scheme, which has been updated in 2025 and 2026. This includes surveys for habitats and protected species covering different months and different potential stages in seasonal behavior (e.g. all surveys used as an opportunity to update the baseline data and bat visual assessment surveys covering spring/summer/autumn). There is therefore considered to be a robust survey effort to inform the Proposed Development and address any limitations.

8.3 Baseline Conditions

Current Baseline

Desktop Study and Data Sources

- 8.3.1 The broader Arborfield Garrison scheme has been the subject of numerous ecology inputs, dating back to 2006. New studies and surveys have been undertaken for the purposes of this EIA.

Desk study

- 8.3.2 The following information has been included in a desk study with Thames Valley Environmental Records Centre (TVERC) for a search area of 1km around the central Ordnance Survey Grid Reference of the Site:

- 8.3.3 A data search has been carried out as shown in **Table 8.1**.

Table 8.1 Data searches with TVERC

Data search with TVERC	Data search ordered and interpreted by
Not specified, although referenced in previous Preliminary Ecological Appraisal dated March 2025	Pioneer Environment Group Ltd

- 8.3.4 A desk study was also carried out using the Multi Agency Geographic Information for the Countryside (MAGIC) website with searches in March 2026.

- 8.3.5 Given the scale of the Proposed Development, the MAGIC website was used to carry out a data search of 5km for the following:

- International statutory designated sites designated for nature conservation interest, namely Special Protection Areas (SPAs), Special Areas for Conservation (SACs) and Ramsar sites.

- 8.3.6 The MAGIC website was used to carry out a data search of 2km for the following:

- Statutory Designated Sites of National Importance (e.g. Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs)) and Regional Importance (e.g. Local Nature Reserves (LNRs) located within 2km of the Site.

- 8.3.7 The MAGIC website was used to carry out a data search of 1km for the following:

- European Protected species (EPS) licences including bats, great crested newt, hazel dormouse *Muscardinus avellanarius* and otter *Lutra lutra*.
- Data from the Ancient Woodland Inventory and Priority Habitat Inventory.

Field surveys

8.3.8 A suite of surveys by ACD Environmental Ltd in 2026 are ongoing comprising the following:

- Reptile presence/absence surveys (mats deployed and first check completed on 31 March 2026).
- Bats - visual assessment of trees (completed on 18 March 2026).

8.3.9 A summary of the surveys carried out is shown in **Table 8.2**.

Table 8.2 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 Environmental ⁶	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) ⁷	2012	Arborfield Garrison including red line boundary	
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	

⁶ WSP Environmental 2006 Bat Surveys (GVA / WSP Environmental 2006).

⁷ AMEC Environmental Statement and Appendices (AMEC 2013).

			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 ⁸	2014 7 visits (July to October)	Arborfield Garrison including red line boundary	
2025 (Undertaken for this EIA)				
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 EIA)				
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 <i>et al</i> 2012
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 EIA)				
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	17 th April - 24 th April 2026	Ponds within 500m of red line boundary	Biggs et al (2014)

⁸ AECOM (2014). *Arborfield Garrison - Reptile Mitigation Strategy*.

Updated Preliminary Ecological Appraisal (PEA)	Ecosupport Ltd ⁹	10th of July 2026	Habitats within red line	UKHab (2023) ¹⁰
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Site Description and Context

- 8.3.10 The Site is located adjacent to the Arborfield Garrison SDL, with a survey area of approximately 12.9ha, 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. See Chapter 2 – Site and Local Context for further details.

Baseline Survey Information

Designated sites

- 8.3.11 Statutory designated sites are the most significant ecological receptors and comprise SPAs, SACs, Ramsar sites of International Value; SSSIs and NNRs of National Value; and LNRs of Local Value.
- 8.3.12 LNRs are notified under Section 21 of the National Parks and Access to the Countryside Act 1949 (as amended) by local authorities. They are places with wildlife or geological features and are intended for public appreciation, enjoyment and education. The LNR designation does not afford special protection; however, LNRs are protected under legislation and planning policy.
- 8.3.13 No part of the Site is covered by any statutory designations. There is one international designated site within 15km of the Site (underpinned by SSSIs).
- 8.3.14 There are two SSSIs within 5km of the site boundary.
- 8.3.15 These designated sites are shown in **Table 8.3**.

Table 8.3 Statutory sites within 5km of the Site

Name of Statutory Site	Approximate distance and direction from the Site	Nature Conservation Interest	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 <i>Caprimulgus europaeus</i> , woodlark <i>Lullula arborea</i> and Dartford warbler <i>Sylvia undata</i> .	International and European
Longmoor Bog (SSSI)	500m southeast	Designated because of its base-poor valley mine, carr woodland and wet heathland.	National

⁹ Ecosupport Ltd. *Preliminary Ecological Appraisal*. Former Arborfield Studios (Parcels W, Y, and Z), Arborfield Green. (2026)

¹⁰ UKHab Ltd (2023). *UK Habitat Classification Version 2.0*. Available at: <http://www.ukhab.org>

8.3.16 In Berkshire, non-statutory local sites are termed Local Wildlife Sites (LWSs). They are of County Value.

8.3.17 No part of the Site is covered by any non-statutory designations. However, there are eight LWSs within 2km of the Site boundary as shown in **Table 8.4**.

Table 8.4 Non- Statutory sites within 2km of the Site

Name of Non-Statutory Site	Approximate distance and direction from the 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 two nearby woodland LWSs via Green Lane.	County
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, ditches 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

Habitats of Principal Importance

- 8.3.18 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.
- 8.3.19 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.
- 8.3.20 Additionally, TVERC returned a further 24 Priority Habitats determined within their area of coverage including eutrophic standing waters, lowland mixed deciduous woodland, rivers and traditional orchards.

Habitats

- 8.3.21 The Site supports the following habitats:

Natural/semi-natural 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);
- h3d – Bramble scrub.

Artificial urban habitats

- u1b5 – Buildings;
- u1 – Built-up areas and gardens with secondary code vegetated garden (828).
- u1b – Developed land; sealed surface with secondary codes scattered trees (32) and introduced shrub (847);
- u1c – Artificial unvegetated; unsealed surface.

- 8.3.22 All the features described are shown in the Preliminary Ecological Appraisal report at **Appendix 8.1**.

- 8.3.23 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.

- 8.3.24 The 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)

- 8.3.25 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 echinoides*), 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.
- 8.3.26 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*).
- 8.3.27 w1g – Other woodland; broadleaved with secondary code line of trees (33) 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*.
- 8.3.28 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.**
- 8.3.29 w1f – Lowland mixed deciduous woodland 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*.
- 8.3.30 r1g – Other standing water with secondary code sustainable drainage system (848) 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.
- 8.3.31 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.
- 8.3.32 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*.

H3d- Bramble Scrub

- 8.3.33 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.

u1b5- Buildings

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

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

- 8.3.35 Scattered around some of the buildings, areas of introduced shrub/flowerbeds were present (U3). 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.

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

- 8.3.36 Access roads, car parks and areas of hardstanding comprised a large proportion of the Site .

u1c – Artificial unvegetated; unsealed surface

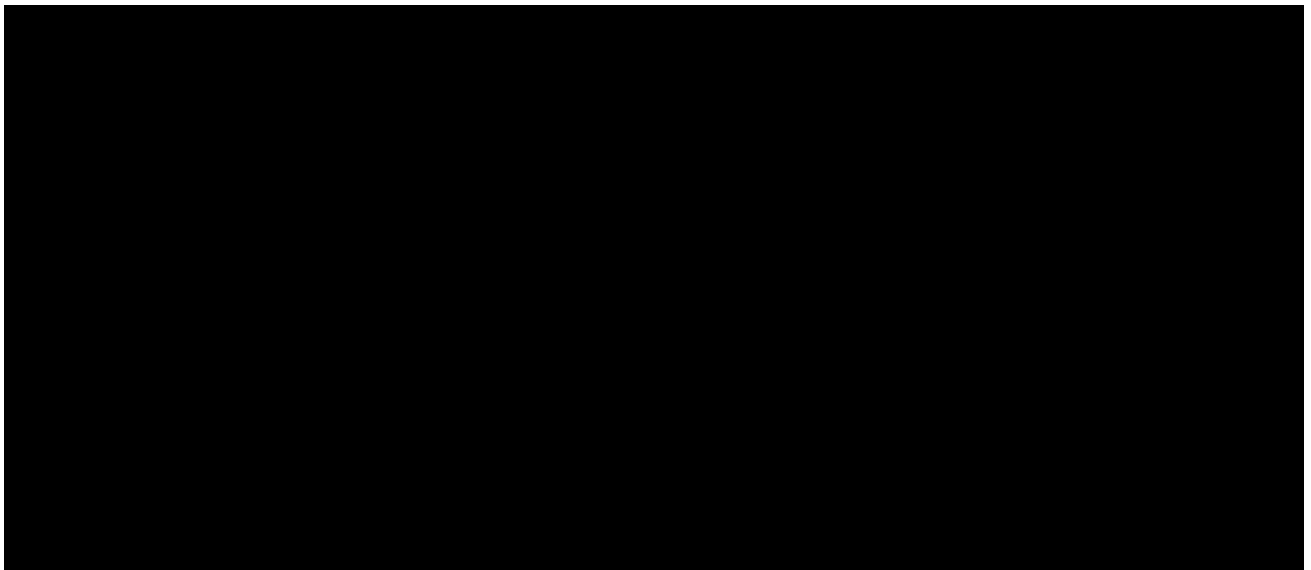
- 8.3.37 Situated mostly around on-site buildings, areas of ruderal/ephemeral species were documented with additional mulched areas also noted.

Invasive species

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

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

Protected Species



- 8.3.44 The woodland and scrub habitats along the eastern extent offer suitable habitats for sett-building, with grassland areas across the Site providing suitable foraging and commuting habitats; connectivity with the wider environment was also noted.

Bats

- 8.3.45 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'.
- 8.3.46 Magic Maps (DEFRA, 2025) showed 10 EPS licences for bats had been granted within 1km of the Site with the closest being 135m south, for the destruction of a brown long-eared and common pipistrelle bat roost.
- 8.3.47 Previous bat survey work was completed in 2006 and 2008 by AMEC and GVA Grimley/WSP Environmental with updated surveys in 2012 being completed by AMEC covering roosting and bat activity across Arborfield Garrison, consisting of multiple parcels of land, including The Site.
- 8.3.48 In 2014 AECOM updated bat surveys to inform a Bat Mitigation Strategy¹¹ for Arborfield Garrison, and during these surveys assessed the suitability of the 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.
- 8.3.49 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.
- 8.3.50 ACD Environmental Ltd completed a bat tree visual assessment on the 18 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.
- 8.3.51 The majority of trees will be retained and given that trees change over time and due to the transitory nature of tree roosts, an updated visual assessment of trees for roosting bats will be required before any tree removals take place.
- 8.3.52 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.

Birds

- 8.3.53 TVERC returned over 500 records of 64 bird species (dated 2000 - 2024) within 1km of the Site. Of these records, only those species protected under Schedule 1 of the Wildlife and

¹¹ AECOM (2014). *Bat Mitigation Strategy* (ES Appendix 13.4).

Countryside Act, UKBAP/NERC priority species, or Birds of Conservation Concern (Red Listed) have enhanced protection with no Red Listed bird species being recorded.

- 8.3.54 Nesting material and droppings consistent with those from pigeon *Columba sp.* were identified in building B16 during the Preliminary Roost Assessment by Pioneer Environment Group Ltd (2025). A disused bird's nest was nestled amongst some ivy within an ash tree (TN4). An active wood pigeon *Columba palumbus* nest was also recorded (TN2). Overall, the Site offered suitable habitat for nesting birds in trees, scrub, grassland, woodland, and hedgerow habitats, as well as within on-site buildings.

Great crested newt and other amphibians

- 8.3.55 TVERC returned one record of great crested newt, approximately 520m south of the Site; Magic Maps (DEFRA, 2025) showed no EPS licences for GCN were granted within 1km of the Site.
- 8.3.56 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 newts *Lissotriton vulgaris*.
- 8.3.57 Two ponds were identified within the Site, whilst an additional 20 ponds were noted in the wider environment and within 500m of the Site. 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 8.5**.

Table 8.5 Habitat Suitability Index Assessment 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.

- 8.3.58 No evidence of great crested newt was identified during the survey. A single common frog was discovered amongst the woodland to the east of the Site, within close proximity to pond P1 (TN17). No other evidence of amphibians was observed during either survey period.
- 8.3.59 The 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 (TN1), multiple piles of steel/rubble with vegetation and scrub surrounding the water tower in the north of the Site (TN7) and multiple dead wood piles located within the woodland to the east of the Site (TN18). 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.

Reptiles

- 8.3.60 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).
- 8.3.61 TVERC returned 35 records of reptiles within 1km of the Site, including records of adder, common lizard, grass snake and slow worm.
- 8.3.62 In 2008, reptile population class assessments were completed within the 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 Site was identified as being suitable for reptiles by AECOM.
- 8.3.63 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 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.
- 8.3.64 The Site still contains suitable habitat for reptiles. The tussocky, southwest-facing grassland, with scrub edge, located to the north of the Site (TN5) offers suitable habitat for insolation, foraging and commuting reptiles; brash piles within Site (TN25) also offered areas of refuge. To the west of the 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.
- 8.3.65 Boundary scrub and woodland habitats provide a mosaic of habitats that is suitable for reptiles and can provide connectivity with the wider environment and act as corridors for individuals to migrate to/from the Site.

Other species

- 8.3.66 TVERC also returned 45 records of important invertebrate species, including: stag beetle *Lucanus cervus*, common darter *Sympetrum striolatum*, cinnabar *Tyria jacobaeae*, knot grass *Acronicta rumicis*, and white admiral *Limenitis camilla* dated between 2007 - 2023, within 1km of the Site.
- 8.3.67 Seven records of hedgehog *Erinaceus europaeus* were returned within 1km of the Site, dated between 2012 - 2022.

8.3.68 Eleven records of notable flowering plants were also returned within 1km of the Site, and included: bluebell *Hyacinthoides non-scripta*, cross-leaved heath *Erica tetralix*, heath speedwell *Veronica officinalis*, heather *Calluna vulgaris*, lesser spearwort *Ranunculus flammula*, ragged robin *Silene flos-cuculi*, round-leaved sundew *Drosera rotundifolia*, tormentil *Potentilla erecta*, wild strawberry *Fragaria vesca*, and wood-sorrel *Oxalis acetosella*, dated between 2008 - 2017.

8.3.69 A single record of bog moss *Sphagnum sp.* was returned within 1km of the Site, dated 2017.

8.3.70 No impacts are anticipated on these species providing appropriate mitigation measures are in place during development.

Future Baseline

8.3.71 The future biodiversity value of the Site is expected to change if the development is not implemented and current use of the Site is continued. The main area of change could be climate change and spread of invasive species.

8.3.72 Climate change could lead to drier summers resulting in ponds drying up and wet winters. The ponds drying up will influence the breeding success of great crested newts. The wet winters may cause animals to wake from torpor earlier than normal, resulting in mortality due to the metabolic expenditure related to waking up from torpor.

8.3.73 The spread of invasive species recorded on Site could develop and cover more of the Site such as Cotoneaster sp., buddleia, *Monbretia sp.*, and tree of heaven *Ailanthus altissima*.

8.3.74 Future baselines ecological surveys would likely be required to update the current baseline information of the Site. Ecological surveys will be required to update this.

8.4 Inherent design mitigation

8.4.1 The proposals for the Site have been developed through a design process that has sought to include the development and land use requirements set out at Policy CP7 related to 'Biodiversity' and Core Policy CP8 of Wokingham Borough Council Local Plan 2010, which relates to the Thames Basin Heath (TBH) SPA and also to provide the Site specific measures including mitigation measures set out in the Policy.

8.4.2 The planning application includes the provision of a community use area; open space provision including a new community park and play facilities; and areas of landscaping and green infrastructure, including sustainable drainage measures and areas to increase the biodiversity value within the Proposed Development. This will provide recreational opportunities onsite and limit the need for residents/staff within the Proposed Development to venture offsite for recreation (although there are no internationally designated sites within 15km of the Application Site).

8.4.3 In terms of habitats, mitigation by design measures including retained/enhanced/new grassland including a wildflower area managed for biodiversity; retention and enhancement of the woodland scrub/tall ruderal habitat; new scattered tree planting; large areas of new gardens, orchards and enhanced drainage features with suitable wildflower and wetland planting.

8.4.4 These measures are detailed further as follows:

- The Site is predominantly urban, which is of limited ecological value. The mitigation hierarchy has and will continue to be followed for the proposed development with ecological opportunities maximised whilst delivering the scheme. This includes retention and enhancement of the main habitats of value, the woodland, namely the Priority Habitat Inventory as deciduous woodland and grassland.
- New community orchard areas will be planted with locally sourced fruit trees and will be managed to maintain a diversity of ages in the trees and ensure the long-term reproductive and genetic viability, which includes selective pruning. The orchards will be managed to ensure that there always remains a composite of older trees (with cavities/deadwood) and younger trees (bearing more fruit) to ensure that these trees provide a range of ecosystem functions. The grassland beneath the trees will be planted with a shade-tolerant wildflower seed mix.
- New community allotments, gardens and playing fields will provide ecological value, albeit that this value is limited.
- New scattered tree planting including native berry/flower/fruit/nut/seed bearing species.
- 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 to provide green corridors.

8.5 Potential Effects prior to Additional Mitigation

Construction Phase

8.5.1 The main potential effects on ecological receptors as a result of the Proposed Development (only in the absence of additional mitigation) are:

- Habitats - loss, damage, pollution and spread of invasive species.
- [REDACTED]
- Bats - lighting impacts during the construction phase.
- Reptiles - reduction in foraging habitat and potential death.
- Birds - reduction in nesting opportunities, loss of foraging habitat and potential death.

8.5.2 The woodland and pond could be subject to permanent direct/indirect habitat damage in the absence of mitigation. This would result in **Minor Adverse (not significant)** effects at a Borough/District level for the woodland and a Local scale for the pond.

8.5.3 If invasive species were not to be removed in accordance with species-specific methodology and were allowed to spread, this would result in a **Major Adverse (significant)** effect at a Local/Borough/District scale depending upon the habitat/s impacted.

Operational Phase

- 8.5.5 The main potential effects on ecological receptors as a result of the Proposed Development (only in the absence of additional mitigation) are:
- Habitats - loss, damage, pollution and spread of invasive species.
 - [REDACTED]
 - Bats - lighting impacts during the operation phase.
 - Birds - long-term loss of nesting/foraging habitat for nesting birds.
- 8.5.6 The creation of residential dwellings within the 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.
- 8.5.7 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; nightjar *Caprimulgus europaeus*, woodlark *Lullula arborea* and Dartford warbler *Sylvia undata*. 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 affecting heath habitat.
- 8.5.8 Natural England and other stakeholders have created the Thames Basin Heath Special Protection Area Delivery Framework. The Delivery Framework guidance determined that the Site prior to mitigation was likely to have Negative effects resulting from increased recreational visitor pressure on the SPA which would result in a near certain, long, term, local effect on a designated site of international value and would be a legislative infringement.
- 8.5.9 The development is also situated within 500m of Longmoor Bog Site 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.
- 8.5.10 Longmoor Bog SSSI is in closer proximity to the 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.
- 8.5.11 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 SSSI's 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.
- 8.5.12 Negative effects resulting from increased recreational visitor pressure would result in a near certain, long-term **Major Adverse (significant)** effects at an International/National scale.

8.5.13 The woodland 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 pond.

8.5.14 If invasive species were not to be removed in accordance with species-specific methodology and were allowed to spread, this could result in a **Major Adverse (significant)** effect at a Local/Borough/District scale depending upon the habitat/s impacted.

8.5.16 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.

8.5.17 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.

8.5.18 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.

8.6 Additional Mitigation

Construction Phase

Woodland, pond and invasive species

8.6.1 Mitigation measures for habitats during the construction phase will be detailed in a Construction Environmental Management Plan (CEMP): Biodiversity, which can be secured by an appropriately worded planning condition, and is summarised as follows:

Site walkover

- An updated site walkover is carried out within the three months prior to the commencement of works.

Pollution – prevention

- Guidance for Pollution Prevention (GPP)¹² measures must be followed to prevent pollutants from entering the water table, new drainage features and other habitats and to appropriately deal with any pollution incidents should they arise.

¹² Scottish Environmental Agency *Guidance for Pollution Prevention (GPP)*. Can be found here: <https://www.netregs.org.uk/tools/guidance-for-pollution-prevention-gpp-documents/>

Pollution - chemical contamination

- All chemicals will be carefully stored within the site compounds.
- Should any chemical spills occur then they must be traced, recorded and addressed in compliance with COSHH.
- A spill kit must be available at all times.
- Information on dealing with chemical spills is contained in PPG21 'Dealing with Spills' and a copy of this guidance should be kept on site during the construction works.
- If required, any refuelling of vehicles or any use of chemicals is to be carried out within designated areas on an impermeable surface.
- Should any drums be damaged or leaking, then these should be removed from the construction site immediately and disposed of in an appropriate manner.

Pollution - dust

- Any exposed areas of soil and piles of sand, soil or other small particle materials should be kept damp and/or covered by a geotextile membrane whilst not being worked on, especially on days of high winds.
- Geotextile membrane may be installed on the Heras fencing surrounding the construction site.

Waste management

- Material arising from the Proposed Development must be recovered/recycled within the Proposed Development/recycled at suitable facilities offsite/disposed of at suitable facilities offsite as appropriate with no dumping of waste on or adjacent to the Proposed Development under any circumstances.

Fencing and signage

- Heras fencing will be installed to secure the construction site and there will be fencing and signage to delineate clear boundaries of movement for vehicles/pedestrians and working/storage zones.
- Heras fencing will be installed to protect Root Protection Zones (RPZs) around the retained trees as detailed further below.

Groundworks

- If soil is imported to the site, areas where topsoil is used must be checked annually between May and September in relation to invasive species as detailed below.

Location of site compounds

- The site compound/s, including welfare facilities, storage materials and plant will be positioned outside of the RPZs of retained woodland, scattered trees.
- All general construction material will be carefully stored within the site compounds.

Trees

- Heras fencing to protect RPZs will be installed around the retained trees/hedgerows in line with the current British Standard 5837 'Trees in Relation to Design, Demolition and Construction - Recommendations'. The RPZs will be maintained throughout the construction phase and will be subject to weekly checks by the contractors to ensure this is still in place and is not damaged or compromised.
- Where tree removal or pruning is required, such works are to be carried out in accordance with the current British Standard 3998 'Tree Work - Recommendations'.
- No trees to be retained shall be used for anchorage or winching purposes.
- Arisings from the removal of diseased trees, including trees with ash dieback, will be safely removed from the construction site and disposed of in a safe manner.
- Any timing restrictions detailed for the protection of fauna will be adhered to.

Invasive species

- If soil is imported to the site, areas where topsoil is used must be checked annually between May and September. If any soil is imported to the site, it must be sourced from an approved supplier and a record should be made as to where the imported soil is distributed. The check will comprise a search for invasive species, such as Japanese knotweed *Fallopia japonica*.
- Invasive species must be removed in accordance with species-specific methodology.

■■■■■ bats, birds, reptiles and great crested newt

8.6.2 Mitigation measures for protected species during the construction phase will be detailed in a CEMP: Biodiversity and are summarised as follows:

General measures

- Areas will be developed in parcels/phases, which means that areas of suitable habitat will be available for use by protected species to areas that are not being worked on at the time.
- Care must be taken during any works to ensure wildlife is not harmed and in the event any protected species are found when the ecologist is not in attendance, works must stop, they must not be handled and ACD Environmental Ltd or an alternative qualified specialist contacted in the first instance.
- General measures will be adopted during the proposed works to safeguard wildlife that may be present (including ■■■■■ and also amphibians, reptiles and other mammals as detailed above):
- Heras fencing will be installed to secure the construction site and RPZs, and there will be fencing and signage to delineate clear boundaries of movement for vehicles/pedestrians and working/storage zones.
- Any excavations (e.g. trenches/pits) should be covered when works are not taking place to ensure that they do not fill with water and prevent the potential for wildlife to become trapped.

- Any excavations that must be left open overnight will be provided with a means of escape should wildlife enter. This would simply be in the form of a roughened plank of wood placed in the excavation as a ramp to the surface. This is particularly important if the excavation fills with water.
- Any excavations would be inspected each morning to ensure no wildlife have become trapped overnight.
- All temporarily exposed pipes must be capped overnight to prevent wildlife gaining access and later becoming trapped.
- Mounds and piles of materials (e.g. bark mulch) would be kept to a minimum and any essential piles kept off the ground and subject to daily inspections.
- Machinery and building tools/materials must not be stored within or in close proximity to the site boundaries. Where possible, machinery and building tools/materials should be stored in containers.
- The storage of any chemicals within the construction site will be contained in such a way that they cannot be consumed or knocked over by any wildlife.
- The construction site must be left clean and tidy at the end of each working day and food and litter must not be left out overnight.

8.6.3 The pond to the southeast of the Site currently has rubbish surrounding it. This waste will be safely removed and tidied during the construction phase to increase its condition. This represents a straightforward and significant enhancement.

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Bats

Bat roosting - buildings

- 8.6.15 During the Preliminary Roost Assessment (2025), bat droppings were found within two buildings (B4 and B8).
- 8.6.16 The results of the 15 buildings recorded as having potential to support roosting bat within the Site are, out of those buildings only building B4, B9 and B19 were identified as being a bat roosts, with a common pipistrelle observed emerging from B4 on the 4.6.26, another common pipistrelle observed emerging from B9 on the 25.6.26, and one more from B19 on the 28.5.26. all of the confirmed roost are considered to be day roosts. A day roost (low conservation importance) is a daytime resting site where small numbers of bats (often individuals or small groups) sleep safely hidden from predators and poor weather.
- 8.6.17 As bat roosts are confirmed, the proposed mitigation strategy will form part of the EPS licence (subject to planning permissions being granted), which will be required for the proposed works to commence lawfully for buildings where roosts have been confirmed. However, the principles of the mitigation strategy are provided below and demonstrate that the development is capable of achieving an EPS licence as follows:

Pre-commencement

- Works impacting upon bat roosts will not commence until the EPS licence is in place.
- Prior to the commencement of works, contractors will be made aware of the potential presence of bats (and other protected species), their legal protection and safe working practices to avoid harming bats. They will be informed that in the event any bats are found when the licenced bat ecologist is not in attendance, works must stop, they must not be handled and ACD Environmental Ltd or an alternative qualified specialist contacted in the first instance.
- Bat boxes will be erected on trees within the retained woodland forming part of a dark corridor as defined by AECOM (2014). This will provide a suitable location for crevice-dwelling bats to be moved to by the licenced bat ecologist with gloved hands only using a cloth bag. Only active bats would be moved and in the unlikely event that hibernating bats are found (unlikely given the timing of the works scheduled within Table 8.2), they will not be moved until they are no longer in hibernation.

Timing

- Works on buildings where bat roosts have been confirmed should be timed during the spring and/or autumn in order to avoid the maternity and main hibernation seasons.

Methods of works

- The licenced ecologist will be in attendance to supervise the works on buildings where bat roosts have been confirmed, which will comprise a soft-strip of areas of the roof identified by the bat ecologist as supporting roosting bats or offering potential to support roosting bats. If any crevice-dwelling bats are found, then they will be moved to the bat boxes by the licenced bat ecologist only.

Roosting provision

- In order to mitigate for the loss of the bat roosts, a scope of provisions e.g. bat tubes/boxes are required to be integrated within the proposed buildings.
- A range of bat boxes will also be delivered as enhancements.
- The bat tubes/boxes will be located immediately adjacent to green provision to ensure that there are suitable flight lines to the roosting provision.

Lighting

- 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.

Site Visits

- Site visits will be carried by licenced bat ecologists before, during and after the works as required.

Bat roosting - trees

- 8.6.18 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.

Birds

- 8.6.19 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.
- 8.6.20 A scope of bird boxes will be integrated into proposed new buildings as mitigation/enhancements.

Reptiles

- 8.6.21 With a total of five grass snake being recorded on site during the presence/absence surveys in 2026, a precautionary approach will be required, which will be suitable for moderate numbers. 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 as detailed below to also protect great crested newts.

Great crested newt

- 8.6.22 The 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 (TN1), multiple piles of steel/rubble with vegetation and scrub surrounding the water tower in the north of the Site (TN7) and multiple dead wood piles located within the woodland to the east of the Site (TN18). 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.

- 8.6.23 The Site is on the boundary of red and amber impact zones for great crested newts identified as part of the NatureSpace District Licensing Scheme, which means great crested newts are likely to be present in the area, though there are no records within 500m of the site.
- 8.6.24 The Site will register under the NatureSpace District Licensing scheme.
- 8.6.25 The following avoidance measures will also be implemented to reduce the impact of disturbance to any reptile or amphibian species that may be present on the site:
- 8.6.26 All vegetation due for clearance will be strimmed to approximately 100 mm high using hand tools only or kept to a short sward height or grazed from February onwards prior to work commencing, to deter any species from using it as cover, and to make it easier to find any that may be present.
- 8.6.27 Any animals that are found will be collected and moved to suitable nearby areas of undisturbed vegetation such as the adjacent woodland. Animals will be transported in a covered black bucket to reduce stress and will not be contained for longer than 30 minutes. If great crested newts are found whilst works are on-going despite following good practise guidelines, all work will stop, and the situation re-assessed and a mitigation licence applied for if necessary, if one has not been obtained beforehand. Any handling of this species will only be carried out by someone with a great crested newt license.
- 8.6.28 If work is carried out at a time of year when these species are likely to be active, the following precautions will be carried out: any holes or trenches will be covered over at night to prevent animals falling into them; any materials stored overnight will be raised above ground on pallets to prevent animals sheltering underneath them, and building waste will be put in skips and not be left lying around to prevent them taking refuge in it; concrete will not be left unset overnight, or suitable barriers erected to prevent them accessing the concrete
- 8.6.29 Excavations and working areas will be managed so as not to create temporary waterbodies, which may attract newts onto the site.

Operational Phase

Statutory sites

Thames Basin Heath SPA/Longmoor Bog SSSI

- 8.6.30 TVERC and Magic Maps identified the Thames Basin Heaths Special Protection Area SPA to be within 5km of the development. 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 SANGs has been agreed and will be secured by a subsequent Section 106 agreement.

Woodland and pond

- 8.6.31 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.

8.6.32 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.

8.6.33 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.
- 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.

8.6.34 The above measures achieve objectives in relation to the relevant Local Nature Recovery Strategy measures as shown in **Table 8.6**.

Invasive species

8.6.35 As above, if soil is imported to the site, areas where topsoil is used must be checked annually between May and September. If any soil is imported to the site, it must be sourced from an approved supplier and a record should be made as to where the imported soil is distributed. The check will comprise a search for invasive species, such as Japanese knotweed.

8.6.36 As above, invasive species must be removed in accordance with species-specific methodology.

Table 8.6 Local Nature Recovery Strategy measures achieved through habitat onsite

Local Nature Recovery Strategy reference	Local Nature Recovery Strategy habitat objective	Achieved within the Proposed Development
PM04 Create Traditional Orchard	Creating traditional managed orchards	Planting of new fruit bearing trees and potential for orchard area within emerging layout
PM18 Create ponds	Create and restore networks of clean water ponds, focusing on land uses and habitats which generate clean water (e.g. unimproved grassland, woodland, heathland).	Enhancement of on-site pond and creation of new SuDS with wildflower planting
PM03 Restore Grassland	The strategy focuses on transitioning degraded or species-poor permanent grassland back to biodiverse, species-rich habitats through targeted management	Although transitioning grasslands is not applicable, there will be wildflower grassland planting onsite

8.6.37 Additional mitigation measures on habitats during the operation phase will be addressed through the SANG mitigation plan and a Habitat Management and Monitoring Plan (HMMP)/Landscape and Ecology Management Plan (LEMP). This report will focus on ongoing management, maintenance and monitoring of retained, enhanced and created habitats over a period of at least 30 years. This report will provide prescriptions to ensure that the ecological mitigation and enhancements proposed lead to BNG. This report will contain the following:

Pollution - prevention

- Where there are businesses within the Proposed Development, GPPs for businesses must be followed to prevent pollutants from entering the water table, new drainage features and other habitats, and to appropriately deal with any pollution incidents should they arise.

Waste management

- A suitable strategy for recycling/waste management must be in place within the Proposed Development for private homeowners, businesses and community facilities.
- The Developer and Management Company would aim to prevent any fly-tipping and littering. Litter picking will be carried out at regular intervals. Any litter picked will be recycled at suitable facilities offsite/disposed of at suitable facilities offsite as appropriate with no dumping of waste on or adjacent to the Proposed Development under any circumstances.

- Arisings from the removal of diseased trees, including trees with ash dieback, will be safely removed from the Proposed Development. Other arisings will result from grass cuts; tree works including felling and pruning; fallen leaf material; wood chipping; and weeding. These will either be composted/recycled/utilised or safely removed from the Proposed Development.

Management, monitoring and maintenance

8.6.38 A schedule of management, monitoring and maintenance requirements at defined timeframes will be determined including the following:

- All planted areas - applications of approved top dressing as appropriate; replacements of any trees, shrubs, or other plants to maintain the scheme as designed and to replace any that have failed/been lost through theft and/or malicious damage; weed control by hand/using hand tools; watering (as required to maintain healthy growth and regularly during the summer and dry/drought periods); checks and replacement of mulch as required; regular litter picks; checks for invasive species and species considered to be invasive in the absence of management and safe removal and disposal offsite if found; and reviews of the condition, success and long-term maintenance of the planting.
- Grassland - mowing regime, which allows for some areas to be managed with a longer sward; spiking as required; and re-seeding should bare patches develop.
- Trees and shrubs - checks of tree stakes and ties for new planting; checks for protective furniture (e.g. grilles, grids and guards); checks for tree and shrub health and damage (at regular intervals and a check of trees following storm events); checks for soil capping or compaction around trees; pruning as required; selective tree removal as required; checks for heavy ivy *Hedera* spp. infestation and removal as required (considering roosting bats and nesting birds); and shrubs maintained in a balanced shape.
- Hedgerows - trimming regime, which will be outside of the nesting bird season, there is an overriding Health and Safety concern that would require consultation with/a check by and ecologist, and to encourage longer growth in places.

8.6.39 The measures above and the SANGs and HMMP/LEMP will focus on ongoing management, maintenance and monitoring of retained, enhanced and created habitats over a period of at least 30 years, which will in turn continue to provide opportunities for protected species.

Bats

8.6.40 Provided the measures within the EPS licence are delivered (as required), the mitigation will be suitable to maintain the Favourable Conservation Status (FCS) of the species concerned in their natural range with a scope of enhancements also delivered. The EPS licence will also determine a scope of monitoring visits.

8.6.41 The trees with bat roosting potential identified by Pioneer Environment Group Ltd (2025) are shown as retained. 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 and hedgerows; enhanced pond; and new SuDS.

8.6.42 A sensitive lighting strategy should, therefore, be produced and incorporated upon completion of the Proposed Development. This should particularly focus on 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.

birds, reptiles and great crested newt

- 8.6.43 The Proposed Development will provide a range of opportunities for these species through the retained/enhanced woodland retained/enhanced/new grassland and hedgerows; new gardens; new scattered trees; enhanced ponds; and new drainage features.
- 8.6.44 A scope of bird boxes will be integrated into proposed new buildings as mitigation/enhancements.
- 8.6.45 With five grass snake being recorded on site it is considered, at minimum, that a moderate population of reptiles use the site. The areas around the ponds will be managed to provide habitats such as long grassland and scrub for the provision of optimal foraging and hibernating habitat for reptiles, this will be maintained to provide structural complexity.

Other Enhancements

- 8.6.46 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 and reptiles.

8.7 Residual effects

Construction Phase

- 8.7.1 With the above measures, the residual effects during the construction phase on Thames Basin Heath SPA/Longmoor Bog SSSI will be reduced to **Negligible (not significant)**. This is through securing appropriate SANGs.
- 8.7.2 With the above measures, the residual effects during the construction phase on the woodland, pond, bats, birds, reptiles and great crested newt have been reduced to **Negligible**. This is through the protection measures e.g. fencing and signage, pollution prevention and nesting bird checks, which will be secured by a CEMP: Biodiversity.

Operational Phase

- 8.7.3 With the above measures, the residual effects during the operational phase on Thames Basin Heath SPA/Longmoor Bog SSSI will be reduced to **Negligible (not significant)**. This is through securing appropriate SANGs.
- 8.7.4 With the above measures, the residual effects during the operational phase on the woodland, 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.

- 8.7.6 With the above measures, the residual effects on bats are **Moderate Beneficial (significant)**. This is because there will variously be retained/enhanced/new habitats providing roosting and

navigating and foraging opportunities. This will be secured by an EPS licence and HMMP/LEMP.

- 8.7.7 In general terms, opportunities for birds will be provided through the retained/enhanced woodland, retained/enhanced/new grassland and 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)**.
- 8.7.8 With the above measures, the residual effects on reptile during the operational phase have been reduced to **Negligible (not significant)**. 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.
- 8.7.9 With the above measures, the residual effects on great crested newt during the operational phase have been reduced to **Negligible (not significant)**. 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. 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.

8.8 Implications of Climate Change

- 8.8.1 The impact of climate change on the development and adaptations to climate change is considered utilising the UKCP18 climate change projections. It is likely that summers will become hotter and drier, and winters will become milder and wetter.
- 8.8.2 Warmer drier summers may result in ponds drying up more frequently and for longer periods, causing loss of opportunity for great crested newts to breed. The Proposed Development will create a new pond, which may not dry out and hold water for longer periods of the summer, replacing potential pond losses due to drought in adjacent land.
- 8.8.3 The milder, wet winters may cause animals to wake from torpor earlier than normal, resulting in mortality due to the metabolic expenditure related to waking up from torpor.
- 8.8.4 There may be an increase in invasive species, plant and animal disease or pests as a result of milder winters. For example, an insect pest might colonise the UK and survive where it could previously not. The chances of this are not proved currently but insect distributions may change in geographic suitability in the future. An increase in gardens and a reduction in urban habitats gives the opportunity for vegetation to be more resilient to change than the current baseline. The enhancement of the onsite woodland will continue to support, rather than planting species which are less suitable.

8.9 Cumulative effects

Barkham Square

- 8.9.1 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.
- 8.9.2 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.
- 8.9.3 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] (with opportunities for great crested newt and other amphibians) is shown as retained.

Wider Committed Development

- 8.9.4 Other potential developments subject to planning applications in relation to cumulative assessment are shown in Chapter 5 – Approach to Assessment.
- 8.9.5 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.
- 8.9.6 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.
- 8.9.7 Furthermore, schemes will need to deliver BNG, remove invasive species, follow pollution prevention measures and secure relevant protected species licences (as required).

8.10 Summary

8.10.1 This Chapter has been prepared by ACD Environmental Ltd and assesses the likely significant effects regarding ecology. A likely significant effect is a positive or negative ecological effect that should be taken into account in judging whether to authorise a project. It is relevant to whether permission is given or refused and, if given, whether the effect is important enough to warrant conditions, restrictions or further requirements such as monitoring.

8.10.2 The Site is located adjacent to the Arborfield Garrison SDL 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.

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

Statutory designated sites

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

Habitats

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

Protected species

- Bats.
- 
- Great crested newt.
- Reptiles.
- Birds.

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

8.10.5 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.

- 8.10.6 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.
- 8.10.7 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).
- 8.10.8 As a result, residual effects reduce to between **Negligible (not significant)** and **Moderate Beneficial (significant)**.
- 8.10.9 A summary of effects, mitigation and residual effects is shown in Table 8.8.

8.11 References

- ¹ Pioneer Environment Group Ltd. Preliminary Ecological Appraisal. Arborfield Studios. PEG659-01A (2025).
- ² Pioneer Environment Group Ltd. Preliminary Roost Assessment. Arborfield Studios. PEG659-02B (2025).
- ³ Ministry of Housing, Communities and Local Government (August 2026). National Planning Policy Framework. Available at: <https://www.gov.uk/guidance/national-planning-policy-framework>
- ⁴ 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>
- ⁵ Chartered Institute of Ecology and Environmental Management (CIEEM) (September 2019). Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater and Coastal, Version 1.1. updated September 2019. CIEEM, Winchester.
- ⁶ Multi Agency Geographic Information for the Countryside [online]. Available at: <https://magic.defra.gov.uk/>
- ⁷ WSP Environmental 2006 Bat Surveys (GVA / WSP Environmental 2006).
- ⁸ AMEC Environmental Statement and Appendices (AMEC 2013).
- ⁹ AECOM (2014). Arborfield Garrison - Reptile Mitigation Strategy.
- ¹⁰ AECOM (2014). Bat Mitigation Strategy (ES Appendix 13.4).
- ¹¹ Scottish Environmental Agency Guidance for Pollution Prevention (GPP). Can be found here: <https://www.netregs.org.uk/tools/guidance-for-pollution-prevention-gpp-documents/>

8.12 Assessor information

Table 8.7 Assessor Information

Chapter	Responsibility	Name	Qualifications	Assessor information
Chapter 8 Ecology	ACD Environmental Ltd	Nick Jones	BSc, MSc, MCIEEM	Nicholas is the Head of Ecology and oversees all work carried out by the Ecology Team. He has over 17 years' experience working for commercial consultancy and specialises in European Protected Species (EPS) legislation and mitigation, holding Natural England Class Licences for barn owl, bats (Level 2) and great crested newt and is one of a small number of ecologists who is a Registered Consultant under the 'low impact' Bat Mitigation Class Licence. He has significant experience of Ecological Impact Assessment (EclA) and has represented ecology at a Hearing. He is a Full Member of Chartered Institute of Ecology and Environmental Management (MCIEEM).
Chapter 8 Ecology	ACD Environmental Ltd	Jake Cranston	BSc, MCIEEM	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.

Table 8.8 Summary of effects

Receptor	Receptor sensitivity	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
Construction Phase					
Thames Basin Heaths (SPA) and Longmoor Bog (SSSI)	Not applicable	Habitat damage	Provision of a SANGS reduce the potential increase in visitors and associated recreational pressure	Negligible	Not significant
Woodland and pond	Not applicable	Habitat damage	CEMP: Biodiversity Retained habitats Removal of invasive species Protection measures e.g. fencing and signage and pollution prevention	Negligible	Not significant
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Birds	Not applicable	Habitat loss/ fragmentation loss of roosting sites	CEMP: Biodiversity Retained roosting and navigating and foraging opportunities Sensitive lighting strategy	Negligible	Not significant
Bats	Not applicable	Habitat loss/ fragmentation loss of roosting sites	EPS licence CEMP: Biodiversity Retained roosting and navigating and foraging opportunities Sensitive lighting strategy	Negligible	Not significant
Reptiles	Not applicable	Habitat loss and/ fragmentation	CEMP: Biodiversity	Negligible	Not significant

Receptor	Receptor sensitivity	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
			Retained habitat opportunities Precautionary clearance or translocation exercise		
Great crested newt	Not applicable	Habitat loss/ fragmentation	CEMP: Biodiversity Retained roosting and navigating and foraging opportunities Sensitive lighting strategy	Negligible	Not significant
Operation Phase					
Thames Basin Heaths (SPA) and Longmoor Bog (SSSI)	Not applicable	Habitat damage	Provision of a SANGS reduce the potential increase in visitors and associated recreational pressure	Negligible	Not significant
Woodland and pond	Not applicable	Habitat damage	Statutory Biodiversity Metric HMMP/LEMP Retained/enhanced/new habitats Removal of invasive species Management measures e.g. regular litter picks and pollution prevention	Moderate Beneficial	Significant
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Birds	Not applicable	Habitat loss/ fragmentation loss of roosting sites	HMMP/LEMP	Moderate Beneficial	Not significant

Receptor	Receptor sensitivity	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
			Retained/enhanced/new habitats providing breeding, wintering and foraging opportunities Bird boxes		
Bats	Not applicable	Habitat loss/ fragmentation loss of roosting sites	EPS licence HMMP/LEMP Retained/enhanced/new habitats providing roosting and navigating and foraging opportunities Bat boxes	Moderate Beneficial	Not significant
Reptiles	Not applicable	Habitat loss and/ fragmentation	HMMP/LEMP Retained/enhanced/new habitats providing foraging and shelter opportunities Log piles providing opportunities for hibernation	Negligible	Not significant
Great crested newt	Not applicable	Habitat loss/ fragmentation	HMMP/LEMP Retained/enhanced/new habitats providing foraging and shelter opportunities	Negligible	Not significant

8.13 Mitigation commitments Summary

Table 8.9 Summary for Securing Mitigation

Identified receptor	Type and purpose of additional mitigation measure (prevent, reduce, offset, enhance)	Means by which mitigation may be secured (e.g. planning condition / legal agreement)	Delivered by	Auditable by
Construction Phase				
Thames Basin Heaths (SPA) and Longmoor Bog (SSSI)	Prevent and offset	Section 106 agreement	Developer	Local Planning Authority
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Birds	Prevent and reduce	Planning condition for Construction and Ecology Management Plan	Ecologist to provide CEMP Developer to follow guidance within report	Local Planning Authority
Bats	Prevent, reduce and enhance	Natural England bat licence or European Protected Species Licence for any buildings and trees to have bats found within them	Licence provided by Natural England Developer to follow licence requirements	Local Planning Authority

Identified receptor	Type and purpose of additional mitigation measure (prevent, reduce, offset, enhance)	Means by which mitigation may be secured (e.g. planning condition / legal agreement)	Delivered by	Auditable by
Reptiles	Prevent and reduce	Planning condition for a Construction and Ecology Management Plan	Ecologist to provide CEMP Developer to follow guidance within report	Local Planning Authority
Great crested newt	Offset	District level licence	NatureSpace Developer to follow licence requirements	NatureSpace/ Local Planning Authority
Operation Phase				
Woodland and pond	Compensation and enhancement	Planning condition of a detailed soft landscape proposal and Landscape and Ecology Management Plan or Habitat Management and Monitoring Plan	Developer	Local Planning Authority
Reptiles	Prevent and reduce	Planning condition for a Reptile Mitigation Strategy Plan	Ecologist to provide mitigation strategy Developer to follow guidance within report	Local Planning Authority
Invasive species	Preventative	Planning condition for an Invasive Species Mitigation Plan	Ecologist or Invasive Species specialist to provide report	Local Planning Authority

Identified receptor	Type and purpose of additional mitigation measure (prevent, reduce, offset, enhance)	Means by which mitigation may be secured (e.g. planning condition / legal agreement)	Delivered by	Auditable by
Ecology Enhancement plan (birds/bat boxes)	Enhance and offset	Planning condition	Ecologist to provide mitigation strategy Developer to follow guidance within report	Local Planning Authority