ECOLOGICAL EXPERTISE, EVOLVED

Wentworth Golf Club, Virginia Water

Ecological Impact Assessment

Prepared on behalf of

Wentworth Club Ltd

Final Report

29 August 2023

23/36-1D

Wentworth Golf Club, Virginia Water

Ecological Impact Assessment

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Executive Summary

Ecological Planning & Research Ltd (EPR) was commissioned by Wentworth Club Ltd to carry out an ecological appraisal in relation to proposals to construct a golf academy building and the creation of a short game area adjacent to the existing 9-hole short course, as set out on the Proposed Site Plan. The proposals will include the removal of trees and the existing sand storage building, clearance of habitats, including the felling of trees and the infill of a section of one of the ponds.

The proposals for the new academy building and short game area are located close to the existing executive course (hole 1 to the west) and the driving range (to the north) close to the centre of the area owned and managed by Wentworth Club. The Site is entirely within the Fish Ponds Site of Nature Conservation Interest (SNCI), designated for its nature conservation interest. A patchwork of habitats are present within the SNCI including the two large ponds, acid grassland, deciduous woodland, in addition to intensively managed modified grassland. The EcIA identifies direct impacts on habitats within the SNCI and includes measures for impact avoidance, compensation and enhancements for biodiversity.

A Ground Level Tree Inspection (GLTI) identified a small number of trees with features considered to be suitable for roosting bats, located within the development footprint. Measures to ensure that works are carried out in accordance with the legislation protecting bats are included within the report consisting of further targeted aerial inspection of features prior to works and the implementation of a precautionary soft felling methodology.

There is the potential for habitat clearance works to impact on nesting birds and reptiles. Measures are included to ensure that works proceed in a precautionary way to ensure compliance with legislation. These include the undertaking of building, tree and shrub clearance works outside of the nesting bird season and the phased clearance of ground vegetation during the active reptile season.

Recommendations have been given for the enhancement of the Site for biodiversity in line with local and national planning policy. Overall a biodiversity net gain of 34.56% has been predicted through application of the Defra metric, which incudes on-site gains and targeted off-site gains for Priority habitats within the adjoining SNCI. Ongoing management of retained, enhanced and newly created habitats will be secured through a Habitat Management Plan for the Site and adjacent elements of the SNCI.

It is anticipated that the proposals should be able to proceed in accordance with applicable nature conservation related legislation and policy.

1. INTRODUCTION

Brief

1.1 Ecological Planning & Research Limited (EPR) was commissioned by Wentworth Club Ltd (Aspire) to carry out an ecological appraisal of land at Wentworth Golf Club (Ordnance Survey Grid Reference SU97806707); hereafter referred to as 'the Site'. Proposals for a new academy building and short game area are located close to the existing executive course (hole 1 to the west) and the driving range (to the north), roughly within the centre of the Wentworth Estate.

1.2 The initial ecological appraisal identified the presence of standing open water and woodland within the Site boundary and therefore it was advised that further targeted surveys at Wentworth should include an eDNA survey and Habitat Suitability Index (HSI) of the ponds for Great Crested Newts; as well as a targeted Ground Level Tree Inspection (GLTI) for roosting bats. A targeted vegetation survey was commissioned of the Site and the habitats within the Zone of Influence of the proposals.

Site Location and Context

1.3 The site location and surrounding nature conservation designations are shown on **Map 1a** and **1b**.

1.4 The main development site is situated within a Local Wildlife Site known as Wentworth Golf Courses – Fish Ponds Site of Importance for Nature Conservation (SNCI). The development site and the wider SNCI includes a patchwork of habitats including broadleaved woodland, remnants of acid grassland, well managed fairways and putting greens, two large ponds, a gravel path and a sand storage barn.

1.5 The wider landscape includes the extensive land managed by the Wentworth Estate with much the same patchwork of habitats as located within the Fish Ponds SINC, with the addition of large residential dwellings and large gardens within the estate boundary.

1.6 Within the land managed by Wentworth Estate there are five other SNCIs. The site is almost equidistant (approx. 1km) between Windsor Forest and Great Park Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC) to the north, and Chobham Common SSSI and National Nature Reserve (NNR), Thursley, Pirbright and Chobham SAC and Thames Basin Heaths Special Protection Area (SPA) to the south, and the Site is located within the Impact Risk Zone (IRZ) for these SSSI's (more detail on nature conservation designations is given in **Section 3**).

1.7 The Site is also situated within a Biodiversity Opportunity Area (BOA), an area that includes a concentration of already recognised protected nature conservation sites within a boundary that also includes other undesignated priority habitats. BOAs represent those areas where improved habitat management, as well as efforts to restore and re-create Priority habitats will be most

effective in enhancing connectivity to benefit recovery of Priority Species in a fragmented landscape (Surrey Nature Partnership, 2019).

Outline of the Proposed Development

1.8 The proposed development includes the construction of a golf academy building and the creation of a short game area adjacent to the existing 9-hole short course, as set out on the Proposed Site Plan (**Appendix 1**). The proposals will include the removal of trees and the existing sand storage building, clearance of habitats, including the felling of trees and the infill of a section of one of the ponds.

Relevant Legislation, Policy and Guidance

1.9 The following articles of nature conservation legislation and planning policy that may be of relevance to the proposals, and have been considered as part of this appraisal are:

- The Environment Act 2021;
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way (CROW) Act 2000;
- The Natural Environment and Rural Communities (NERC) Act 2006;
- The Protection of Badgers Act 1992;
- The National Planning Policy Framework (NPPF) (2021); and
- Runnymede 2030 Local Plan (July 2020).

1.10 In addition to the above, biodiversity objectives detailed in the following documents have been considered:

- Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services;
- The 25 Year Environment Plan; and
- The Surrey Biodiversity Plan: Achievements and Future Action (Surrey Biodiversity Partnership, 2010).

1.11 Further information on the above is provided in **Appendix 2**.

2. ASSESSMENT METHODOLOGY

Introduction

2.1 The approach to Ecological Impact Assessment (EcIA) taken in this report accords with guidance presented in the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2 (CIEEM, 2018).

2.2 In summary, EPR takes the following step-wise approach to EcIA:

- Prediction of the activities associated with a proposed scheme that are likely to generate biophysical changes which may lead to significant effects (either positive or negative) upon Important Ecological Features (IEFs);
- Identification of the likely Zone of Influence (ZoI) of those activities;
- Scoping to select the ecological features (habitats, species, ecosystems and their functions/processes) that are likely to fall within the predicted ZoIs and be affected by the activities;
- Evaluation of IEFs likely to be affected – both negatively and positively;
- Identification of likely impacts (positive and negative) on IEFs, together with an assessment of the geographic level at which effects are likely to be significant;
- Application of the mitigation hierarchy - refinement of the proposed scheme to incorporate impact avoidance and/or mitigation measures for negative effects on IEFs, and enhancements in order to deliver net gains;
- Assessment of the significance of residual effects and identification of any policy drivers for additional mitigation or compensation in the event of residual significant negative effects; and
- Advice on conformance with policy and legislation.

2.3 Further information regarding the methods for ecological evaluation and impact assessment are provided in **Appendix 3**.

Likely Biophysical Changes and Zone of Influence

2.4 The activities associated with the Proposed Development which are likely to lead to biophysical changes, and could accordingly give rise to ecological impacts, are set out in **Table 2.1** below, which is drawn from Box 9 of the EcIA Guidelines (CIEEM, 2018).

2.5 The Zone of Influence (ZoI) of a proposed development is defined by the EcIA Guidelines as *"… the area(s) over which ecological features may be affected by the biophysical changes caused by the proposed project and associated activities"*.

2.6 In this case, the ZoI of the Proposed Development will encompass different areas, and thus potentially impact upon different ecological receptors, depending upon the spatial extent of the relevant biophysical change (e.g. light, noise, habitat loss, recreational disturbance). The ZoI(s) relevant to this assessment are summarised in **Table 2.1** below.

Table 2.1: Activities and Biophysical Changes associated with the Proposed Development which may give rise to ecological impacts, and associated Zone(s) of Influence

Predicted Change	Zone of Influence
Site Clearance and Construction Phase	
Vegetation clearance and landscaping	Site and immediate surrounds
Building demolition (removal of habitat)	Site and immediate surrounds
Increase in general disturbance from construction traffic, noise and vibration etc	Site and immediate surrounds
Dust from clearance, demolition and construction	Site and immediate surrounds
Additional artificial lighting and light spill from security and safety floodlighting	Site and immediate surrounds
Operational Phase	
Changes in landscape structure	Site and immediate surrounds
Additional lighting and light spill	Site and immediate surrounds

3. ECOLOGICAL BASELINE

Overview

3.1 The ecological baseline has been compiled following the programme of surveys set out in **Table 3.1** below. Further information regarding the survey work carried out, including methodologies and metadata, is provided in **Appendix 3**.

Table 3.1: Overview of ecological survey programme

Survey Type	Month	Year
Ecological Appraisal and Daytime Inspection of the Building for Bats	June	2023
Detailed botanical assessment	June and July	2023
Great Crested Newt eDNA and HSI Survey of the ponds	June	2023
Ground Level Tree Inspection for Bats	June	2023

Ecological Appraisal

3.2 The Ecological Appraisal was the starting point for determining the ecological features potentially needing to be considered within an EcIA. The Site and overlapping Fish Ponds SNCI is comprised of a patchwork of habitats which are shown on **Map 2** and **3**. These include Lowland mixed deciduous woodland, remnant areas of acid grassland containing some notable flora, standing open water and surrounding wetland vegetation associated with the ponds, and large areas of intensively managed modified grassland.

3.3 The Ecological Appraisal identified the need for further survey in respect of the vegetation within the Site boundary and within the wider Fish Ponds SNCI, assessment of the trees for bat roost potential and ponds for Great Crested Newts.

3.4 Further surveys for reptiles were considered unnecessary due to the low impact nature of the proposals. In addition, further surveys for Hazel Dormouse *Muscardinus avellanarius* and Water Vole *Arvicola amphibius* were scoped out of the assessment following the ecological appraisal and desktop study due to the fragmented nature and small size of the suitable habitats within the Site boundary.

Designated Sites

3.5 **Maps 1a** and **1b** show local-level nature conservation designations up to 2km from the Site and up to 5km for National and International sites of nature conservation designations.

Statutory Designated Sites

3.6 Details of the statutory designated nature conservation sites located within 5km from the Site that have the potential to be impacted by the Proposals are included in **Table 3.2** below.

Table 3.2: List of statutory designated nature conservation sites located within 5km

Designated Site Name	Approximate Distance from the Site	Reason for Designation
Windsor Forest and Great Park SSSI and SAC	1km	Windsor Forest and Great Park has been designated as a SSSI as it forms one of the largest continuous tracts of woodland and parkland in Berkshire. The site supports a high diversity of invertebrates including a number of rare species.
Chobham Common SSSI and NNR	1km	Chobham Common is designated as a SSSI and as a NNR. Chobham Common SSSI is also a component of the Thames Basin Heaths SPA, and Thursley, Ash, Pirbright and Chobham SAC. Chobham Common is an area of extensive, open land which supports dry and wet heathland, bog, scrub and woodland, forming one of the largest surviving heathlands in the Thames Basin (*SSSI Citation*).
Thorpe Park No. 1 Gravel Pit SSSI	4.5km	Designated due to being of national importance for wintering Gadwell *Anus strepera*
Riverside Walk Virginia Water LNR	1km	A woodland site located along the banks of the River Bourne.
Thursley Ash, Pirbright and Chobham SAC	1.3km	Thursley, Ash, Pirbright and Chobham SAC is made up of four SSSIs and covers an area of approximately 5154.05 ha (based on the Natura 2000 Standard Data Form and is located across parts of Hampshire, Berkshire and Surrey. The closest component SSSI, located to the west of the Assessment Site, is Chobham Common SSSI.
Thames Basin Heaths SPA	1km	Thames Basin Heaths are a complex of lowland heathland sites located across Hampshire, Berkshire and Surrey. The heathlands support important populations of breeding birds including Dartford Warbler, Nightjar and Woodlark.

3.7 The above sites are of importance at the **Local** (LNR), **National** (SSSI, NNR) or **International** (SAC, SPA) level, however, due to the nature of the proposed development at Wentworth Golf Club the potential for significant effects is scoped out. The above sites are located a good distance from the construction zone and there will therefore be no direct impacts as a result of construction activities within the Site boundary. The proposals will not result in a net increase of residents and therefore no increase in recreational pressure is anticipated. There is no potential for the Site to support any species that are the reasons for designation of the statutory designated sites.

Non-Statutory Designated Sites

3.8 The Site is located within the Wentworth Fish Ponds SNCI which was designated for its nature conservation interest including potential for heathland recreation in the 'roughs'. The ponds are considered an interesting feature and Water Voles are known to be in nearby streams. The SNCI forms part of a complex of fragmented woodland within and adjacent to the Wentworth Golf Club that are intersected by intensively managed fairways.

3.9 Due to the location of the main development Site, the whole of the Fish Ponds SNCI has been assessed as part of the EcIA, as it is considered to be within the ZoI of the proposals. As a

County designated Local Wildlife Site, the SNCI is considered to have importance at the **County** level. Detailed information on the habitats present within the SNCI is included within the 'Habitats Associated with the Fish Ponds SNCI' section below.

3.10 Within the land managed by Wentworth Estate there are five other SNCIs of County-level importance, including:

- Wentworth Golf Courses – West Wood SNCI;
- Wentworth Golf Course South and Land East of Heather Drive SNCI;
- Wentworth Golf Courses – valley Wood (inc. Great Wood) SNCI;
- Wentworth Golf Courses – Knowle Hill SNCI; and
- Wentworth Golf Courses – Duke's Copse and Wentworth Pond SNCI.

3.11 All of the above SNCI's are designated for their nature conservation interest, in particular a patchwork of woodland, heathland and acid grassland habitats. Dukes Copse and Wentworth Pond SNCI also includes standing open water similar to the Fish Ponds SNCI.

3.12 Due to the low impact nature of the proposed works it is considered unlikely that the ZoI for the proposed development at Wentworth Golf Club will extend beyond the boundary of the Fish Ponds SNCI and therefore no impacts on other SNCI's in the vicinity are anticipated.

Habitats within the Site and Fish Ponds SNCI

3.13 The Site boundary extends to 4.93 ha. 1.88 ha of the habitats within the Site boundary are also located within the Fish Ponds SNCI (38% of Site boundary). The Fish Ponds SNCI extends to 5.30 ha, therefore 35% of the SNCI habitats are located within the Site.

3.14 Examples of the following habitat types (based on the UK Habitats Descriptions – see UKHabs) were recorded and mapped within the Site boundary at Wentworth and the wider SNCI and are described further below:

- Woodland;
- Scrub;
- Grasslands;
- Wetland;
- Ponds; and
- Other.

3.15 The distribution of habitat types are presented on **Maps 2** and **3**. A breakdown of the habitat areas within the Site and Fish Ponds SNCI is provided in **Table 3.3**. Plant species recorded during the botanical survey of the Site and SNCI are included in **Appendix 4 –** all latin names are provided in this appendix, and are therefore excluded from the descriptions below for brevity.

Table 3.3: Summary of habitat areas within Site and Fish Ponds SNCI

UK Habitat Type	Total Area in SNCI (ha)	% of SNCI Habitats as Proportion of Total SNCI Area	Total Area (ha) of SNCI Habitat within Site Boundary	% of SNCI Habitat within Site as Proportion of Total SNCI Habitat Area	Total Area (ha) of Habitat Type within Site but Outside SNCI
Woodlands	***1.77 ha***	***34%***	***0.80 ha***	***45%***	***0.56 ha***
Lowland Mixed Deciduous Woodland*	1.07	20.3%	0.49	46%	0.49
Other Woodland; Broadleaved	0.61	11.7%	0.31	51%	0.07
Wet Woodland*	0.09	1.7%	N/A	N/A	N/A
Dense Scrub	***0.11 ha***	***2.2%***	**0.09 ha**	**82%**	**N/A**
Gorse Scrub	0.05	1.0%	0.03	60%	N/A
Mixed Scrub	0.06	1.2%	0.058	97%	N/A
Grasslands	***2.36 ha***	***44%***	**0.78 ha**	**33%**	***2.39 ha***
Modified Grassland	2.03	38.3%	0.62	31%	2.39
Other Lowland Acid Grassland	0.19	3.6%	0.15	79%	N/A
Bracken (Grassland)	0.005	0.09%	N/A	N/A	N/A
Other Neutral Grassland	0.13	2.47%	0.01	8%	N/A
Wetland	***0.006 ha***	***<1%***	**N/A**	N/A	**N/A**
Purple Moor Grass and Rush Pastures*	0.006	<1%	N/A	N/A	N/A
Ponds* and Associated Habitats	***0.79 ha***	***15%***	**0.09 ha**	**11%**	**N/A**
Standing Open Water	0.69	13.1%	0.06	7%	N/A
Aquatic Marginal Vegetation	0.1	1.9%	0.03	30%	N/A
Other	**0.26 ha**	**5%**	**0.12 ha**	**46%**	***0.11***
Artificial Unvegetated, Unsealed Surface	0.21	4.1%	0.07	33%	0.11
Developed Land; Sealed Surface	0.04	<1%	0.04	100%	N/A
Buildings	0.008	<1%	0.008	10%	N/A
Total Areas	**5.30 ha**		**1.88 ha**		**3.06 ha**

* Habitats listed within Section 41 of the NERC Act (2006) as being of 'Principal importance for the conservation of biodiversity in England', otherwise referred to as 'Section 41 Priority Habitats'.

Woodlands

3.16 The woodland habitat in the survey area Sub-divided into three types:

- Lowland Mixed Deciduous Woodland (Section 41 Priority Habitat);
- Other Woodland; Broadleaved; and
- Wet Woodland (Section 41 Priority Habitat).

Lowland Mixed Deciduous Woodland

3.17 Four areas of Lowland Mixed Deciduous Woodland were mapped:

- Woodland along east of Driving Range - Open woodland over Bracken-Bramble;
- Woodland area south of Driving Range - Open Oak-Birch woodland with an understory of Bracken Bramble;
- Woodland around eastern part of East Pond - Open woodland with an understory of dense Rhododendron and, locally, Bamboo; and
- Woodland in southwestern part of SNCI - An open woodland of young Oak over heathy scrub including Gorse and Broom.

3.18 These four areas of woodland were identified as Lowland Mixed Deciduous Woodland on account of a combination of their area, tree canopy cover, landscape history, and/or recognisable ground vegetation.

3.19 All these woodlands are recent woodlands and species-poor. The woodlands east and south of the driving range have a dense Bracken Bramble understory and are referable to a species-poor variant of the NVC community W10. The woodland around the East Pond has dense Rhododendron/Cherry Laurel (as well as locally dense Bamboo) and is probably also referable to a species-poor NVC: W10 woodland, though the ground flora and vegetation here is obscured by the dense shrub layer. The woodland in the southwestern arm of the SNCI is scattered young Oak over Gorse, Broom, Bracken and Bramble and is a young, heathy woodland variant of the NVC community W10 that is transitional to the NVC woodland types W16.

3.20 All these woodlands are unmanaged (for conservation) and have been invaded by (or possibly locally planted up with) Rhododendron, Cherry Laurel, and Bamboo. Some areas are used to dispose of green waste from the management of the golf course. These recent, young woodlands are in poor condition (for their conservation value) and under the current management, likely to decline in conservation value should, for example, any of the non-native invasive species expand further into the woodland.

Other Woodland; Broadleaved

3.21 Stands of woodland with a dense understory of Rhododendron/Cherry Laurel and/or dense Stinging Nettle beds were recorded under this category. They cannot readily be allocated to an NVC community. Their conservation status is poor and likely to stay that way under the existing management.

Wet Woodland

3.22 A small area of Wet Woodland is present on a remaining part of what was an old pond (part infilled after c. 1940). It has an open canopy of tall shrubs and is well-lit. Cherry Laurel/Rhododendron is encroaching from the sides and, in the absence of any dedicated management, will continue to expand. The conservation value of this small area of wet woodland is favourable but that will decline, for example by an increase in cover of non-native invasive species.

Dense Scrub

3.23 Dense Scrub was recorded as the following two types:

- Gorse Scrub
- Mixed Scrub

Gorse Scrub

3.24 The upper slopes of a bank on the western side of the SNCI support a stand of dense Gorse with Bracken and Bramble. Some mature trees overtop the scrub. This scrub has a simple edge and no interior glades and thus in unfavourable condition and will remain like this under the current management.

Mixed Scrub

3.25 The 'Mixed Scrub' habitat type has been used to map a stand of young Willow on the western side of the West Pond. This willow stand is expanding within the pond, shading out aquatic plants and species. This willow stand will continue to mature and expand further into the pond thereby reducing the extent and quality of the aquatic habitats and species of the pond. The western edge of the scrub is being invaded by the non-native invasive species Himalayan Balsam. This willow scrub is in unfavourable condition and will remain that way with current management.

Grasslands

3.26 The majority of the Site is grassland, with most of that being species-poor, modified grassland. Four main grassland habitats were recorded:

- Modified Grassland;
- Other Lowland Acid Grassland;
- Bracken; and
- Other Neutral Grassland.

Modified Grassland

3.27 The modified grasslands fall into two main categories: one is the highly modified grasslands of the intensively used golfing areas – the greens, tees, and fairways, and the other is the less used roughs and other grassland areas.

3.28 The grasslands of the greens, tees, and fairways are very species-poor swards and are kept very short by regular mowing. These grasslands are poor for nature conservation and will remain

like this under the current golf course management. The grasslands of the roughs and other areas are a little more diverse – though still poor in species – and are kept mown very short.

Other Lowland Acid Grassland

3.29 Acid grassland vegetation was recorded from four areas of the SNCI:

- Short-mown grassland on slopes north of West Pond;
- Short-mown grassland on slopes north of East Pond;
- Rank acid grassland in a glade in a Lowland Mixed Deciduous Woodland; and
- Rank, heathy grassland in the southwestern area of the SNCI.

3.30 The northern bank and adjacent tees and greens of the West Pond have an area of acid grassland with several plant species characteristic of parched acid grassland. The vegetation is referable to the NVC Grassland type U1 Parched Acid Grassland though one whose composition is affected by regular mowing to maintain a very short sward. One plant species of conservation recorded here was the Red List Vulnerable Category Upright Chickweed *Moenchia erecta*. This area of grassland is mown regularly and will stay like this under current management plans.

3.31 Also on the northern bank of the West Pond is an area between the grassland described above and the pond edge - this is an area that has recently been cleared of trees and/or shrubs to allow clear sighting for teeing off. An early stage, open acid grassland has begun to establish here. A small population of the Red List Near Threatened category Common Cudweed *Filago germanica* was recorded here. This area is not mown but is cleared occasionally to allow teeing off. It is likely that the acid grassland here will develop, stabilise and then succeed to gorse or bracken.

3.32 A small area of mown Parched Acid Grassland referable to the NVC grassland community U1 under trees was recorded to the north of the East Pond. This grassland supports a small population of the Red listed plant Upright Chickweed. This grassland is likely to remain in its current unfavourable condition under the existing mowing regime.

3.33 A glade in the Lowland Mixed Deciduous Woodland south of the Driving Range supports a rank, Parched Acid Grassland that is referable to the NVC type U1. This grassland appears to be either unmanaged or infrequently managed. The grassland here includes several species characteristic of parched acid grassland but the assemblage is not very diverse and the plant community is, locally, composed of large patches of individuals – for example the central area has a large patch of species-poor Sheep's Sorrel. This grassland is likely to remain in its current unfavourable condition under the existing management.

3.34 Small areas of acid grassland too small to map also occur around the base of trees and root plates and one small patch occurs on the bank of a short ditch. These are strimmed frequently and are in unfavourable condition.

3.35 Rank, species-poor acid grassland occurs in the south-western end of the SNCI. This grassland has Wavy Hair grass *Deschampsia flexuosa* and is probably referable to the NVC grassland community U2. The stand here may once have been more extensive but the area surrounding it is increasingly dominated by Gorse scrub under an open canopy of young Oaks. This area of

acid grassland is associated with an informal access track and its verges and so is likely to remain in this state though additional losses to scrub may occur around the edges.

Bracken

3.36 A small stand of Bracken that would probably otherwise be an extension of the mown acid grassland sward listed above is present on the north bank of the East Pond. This bracken likely to remain in its current unfavourable condition under the existing management regime.

Other Neutral Grassland

3.37 Two areas of Other Neutral Grassland were mapped in the survey area. One is an area of rank grassland on a broad shallow slope on the western side of SNCI and the other is a narrow margin of damp grassland along the western edge of the West Pond.

3.38 The rank grassland on the bank is composed of a mosaic of grassland and ruderal species composed primarily of intermixed patches of rank False Oat-grass, Bramble, Nettles. The grassland vegetation here is referable to the NVC grassland type MG1 with locally abundant ruderal species. This mosaic of rank grassland and ruderal species has a scatter of young trees and shrubs amongst it. The area appears to be little managed and green waste from golf course management has been tipped in here. One area in the corner has a population of Himalayan Balsam.

3.39 This area is in unfavourable condition and will remain so under the current management regime.

3.40 The other area of Other Neutral Grassland is smaller and forms a narrow fringe around the north and western edge of the West Pond. This grassland, mown regularly, is moderately diverse and has populations of species typically associated with unimproved grasslands including Marsh Pennywort and Tormentil. It lies between the marginal vegetation of the pond and the modified grasslands on the slopes above. This habitat is likely to continue in its current state assuming the current mowing regime is maintained.

3.41 Other locations for other neutral grassland are along the top edge of a ditch extending into the SNCI from the west though these are too small to map.

Wetland

Purple Moor-grass and Rush Pasture (Section 41 Priority Habitat)

3.42 A narrow strip of wetland along the northern edge of the East Pond has acid wet grassland vegetation with species such as Purple Moor-grass *Molinia*, Sharp-flowered Rush *Juncus acutiformis*, Tormentil *Potentilla erecta*, and Star Sedge *Carex echinate*. This is a very small stand of an unimproved grassland referable to the NVC community M23. It is in favourable condition and will likely remain so under the current management regime.

Ponds (Section 41 Priority Habitat) and Associated Habitats

3.43 Two Ponds, likely meeting the classification for Priority Ponds – a Section 41 Priority Habitat, are present on Site; the West and East Ponds. Both have been created by damming a shallow valley though at different times. The West Pond is shown on the 1840 tithe map and the East Pond is absent on that map. The East Pond is shown on the 1870 6 inches to the mile map and so would have been constructed after the West Pond any time after c. 1840 but before 1868. Both are labelled as Fish Ponds on the 1st edition of the OS six inches to the mile map.

3.44 Both Ponds are in a shallow valley on the Bagshot Formation (Sand) and so probably have base poor water though that may be modified by base enrichment and or nutrients from runoff into the watercourses above the ponds.

3.45 The water in both ponds was clear and there was no significant filamentous green algae or duckweed. There is a diverse flora along some of the pond edges in both the West and East Ponds. The West Pond had a young stand of Common Reed in the northern part of the Pond. A stand of Willow is encroaching into the West Pond. The western end of the West Pond is drying out partly through willow invasion and there is now a small stand of the non-native invasive species Himalayan Balsam, which will doubtless begin to spread.

3.46 The East Pond appears to be in favourable condition for its ecology and will likely remain so under current management. The West Pond is in declining condition because of the encroachment of willow and the presence of the Himalayan Balsam. Under the current management, this situation is likely to get worse.

Other

Artificial Unvegetated, Unsealed Surface

3.47 This category covers the golfing tracks and the sand bunkers.

Developed Land, Sealed Surface

3.48 This is a small area outside the building used to store sand and the northern access track.

Buildings

3.49 A small, wooded building used to store sand (at the time of survey)

Evaluation

3.50 The habitats recorded within the Fish Ponds SNCI were regarded, collectively, as a feature of County level importance when surveyed and selected for designation in 2000. Recent survey by EPR indicates that the botanical interest of habitats and vegetation within the SNCI is much reduced, most likely due to the nature of the ongoing intensive golf course management. The most extensive habitat within the SNCI is that of Modified Grasslands associated with the golf course tees, greens, fairways and rough. Nevertheless, four Section 41 Priority Habitat types are present – Lowland Mixed Deciduous Woodland, Wet Woodland, Purple Moor Grass and Rush Pasture, and Priority Ponds, therefore on a precautionary basis the SNCI is assessed as being a feature of **County** level importance.

3.51 The habitats within the Site boundary that lie outside the SNCI boundary are of limited botanical and ecological importance. The exception to this is the Lowland Mixed Deciduous Woodland that lies to the east of the existing driving range, which by virtue of its listing as a Section 41 Priority Habitat type is regarded as a feature of **Local** level importance.

Fauna

Nesting Birds

Desktop Study

3.52 A small number of bird records were returned by the SBIC, some species such as Dartford Warbler *Sylvia undata,* Nightjar *Caprimulgus europaeus* and Woodlark *Lullula arborea* have specific habitat needs and are closely associated with the habitats within the Thames Basin Heaths SPA which has been designated as an SPA since it supports internationally important populations of birds listed on Annex 1 of the Habitats Directive (and Schedule 2 of the Habitats Regulations 2017). These species have all been recorded within 2km of the Site, with the closest records 1.2km to the south west, likely associated with habitats within Chobham Common SSSI and the Thames Basin Heaths SPA.

3.53 Due to the assemblage of habitats within the Site boundary it is unlikely that species listed under Annex 1 of the Habitats Directive associated with the nearby SPA are utilising the Site for breeding. Nightjar, which travel long distances away from heathland nest sites for foraging, may utilise the Site and the surrounding landscape on occasion for night time foraging, however the Site is unlikely to provide critical supporting habitat for this species.

3.54 Other species recorded within 2km of the Site include a number of more common and widespread passerine birds including Nuthatch, Blue Tit, Goldcrest, Wren, Redwing and Fieldfare.

Field Survey

3.55 During the field survey no nests were noted, although Long-tailed Tits were noted feeding newly fledged chicks. The woodland and scrub is likely to support a good assemblage of woodland bird species and the woodland and scrub areas, in addition to the sand storage building, provide potential for nesting birds.

Evaluation

3.56 The Site includes habitats that are likely to support a good assemblage of common passerine species for the purposes of nesting and foraging. This bird assemblage is considered to be of value **within the ZoI** only and is therefore not taken forward to impact assessment in accordance with the EcIA scoping methodology set out in **Appendix 3**.

3.57 All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), and therefore there will be a need to consider the potential for nesting birds when carrying out demolition works/vegetation removal. Further information regarding this is included within **Section 7**.

Bats

Desktop Study

3.58 The records search from SBIC includes a number of records for bats within 5km of the Site, these include:

- Common Pipistrelle *Pipistrellus pipistrellus*;
- Soprano Pipistrelle *Pipistrellus pygmaeus*;
- Brown Long-eared bat *Plecotus auratus*;

- Long-eared bat species *Plecotus sp*.;
- Serotine *Eptesicus serotinus*;
- Myotis species *Myotis sp*.; and
- Noctule *Nyctalus noctule*.

3.59 The list of records for bats are quite succinct with no indication of whether the record is for a bat recorded flying or within a roost. It is likely that the records represent a mix of bats recorded flying with the use of handheld bat detectors and bat roosts located through roost visits.

3.60 Natural England's Multi-Agency Geographic Information Centre (MAGIC) was also consulted for nearby European Protected Species Licences (EPSL) granted in respect of works to bat roosts, with the closest located approximately 0.5km to the south east of the Site for destruction of a breeding site for Brown long-eared bats. A small number of other EPSL's are distributed within the residential areas located around the Site with Common Pipistrelle, Soprano Pipistrelle and Natterers *Myotis nattereri* among the species included within the licences.

Field Survey

3.61 Due to the diversity of habitats, including woodland, grassland and scrub, in addition to the presence of open standing water, it is likely that the Site and the wider Fish Ponds SNCI support a good assemblage of common and widespread bat species that are likely to be roosting in surrounding areas and using habitats within the Site and ZoI for foraging and/or commuting. There are limited opportunities for roosting bats within the Site itself. A Preliminary Roost Assessment (PRA) of the building within the Site boundary was carried out in addition to a Ground Level Tree Inspection (GLTI) for bats.

3.62 The existing building located within the centre of the Site is an open sided barn used for the storage of sand. The construction of the building is very open and single skin. No crevices, cavities or voids were noted that would provide bats with potential roosting opportunities. The building is of **negligible** suitability to support roosting bats.

3.63 All of the trees within the development area and immediately adjacent environs were subject to a GLTI to assess their suitability to support roosting bats. The results of this survey are included on **Map 4** and the data is presented in **Table 3.3** below. Twelve trees were found to have suitability to support roosting bats and only a small number of these are proposed for removal, mainly within the footprint of the new Golf Academy Building.

Evaluation

3.64 The bat assemblage within the ZoI is considered likely to be of **Local** conservation importance.

Table 3.3: Results from the GLTI

Tree				Potential Roost Feature(s)				Assessment		
Ref/ GPS	Species	DBH (cm)	Height (m)	Type*	Aspect (N,S,E, W)	Height (m)	Description	Suitability (Low, Mod, High)	Further survey methods	Further survey notes
97816 67084	Oak	50	12				No real features noted but located immediately adjacent to building to be removed	Low	GLTI	Prior to works undertake a further inspection.
97829 67078	Cherry	20	8	Knot hole	S	3	Several knot holes in a line on the small trunk	Mod	Endoscope	Easily accessible from ground and ladder.
97825 67096	Oak	30	10	Rot Hole	E	6	Damage on trunk and rot hole at top	High	Endoscope	Accessible from ladder, poss bly doesn't go anywhere, closer inspection required.
97827 67114	Silver Birch	50	16	Rot Hole/ tear out	W	4	Rot hole where limb tear out is, upwards facing	Mod	Endoscope	Upward facing so may be unsuitable, unless hole leads to cavity in the trunk, closer inspection required.
97815 67104	Oak	1.75 m	18	Veteran			No specific features noted however size and age of the tree should be taken into consideration with further assessment required if works are proposed	Mod		Further survey if works required.
768 67150	Group of 6 oaks	25-75	14	Ivy Plating			Group of 6 trees with Ivy Plating	Low	Cut Ivy at the base / GLTI	If works are proposed to fell these trees the ivy should be cut at the base and then further GLTI undertaken once Ivy has died back. Or soft fell and inspect.
97747 67198	Oak	75	18	Lifted Bark	S	3 to 8	Lifted bark on main trunk from around 3 m to 8 m.	Mod	Endoscope/ search with a torch	Possibly accessible from a ladder although climbing may be required.
97732 67140	Oak	2m	14	Rotten heart wood and Ivy Plating			Mature tree with mostly rotten heart wood and dense ivy covering	Mod-High	Endoscope/torch	May be difficult to assess due to dense ivy covering. If works required it may be necessary to carry out night time surveys if not easily searched.
97730 67121	Oak	50	12	Wound	N	3	Hole at the bottom of an elongated wound	Mod	Endoscope	Accessible from ladder.

Tree				Potential Roost Feature(s)				Assessment		
Ref/ GPS	Species	DBH (cm)	Height (m)	Type*	Aspect (N,S,E, W)	Height (m)	Description	Suitability (Low, Mod, High)	Further survey methods	Further survey notes
97717 67078	Oak	1.5m	18	Woodpecker hole/rot hole	N	6	Active honey bees nest present	Low		Not accessible at present due to bees. If vacated this would be a suitable BRF.
				Split	SE	5	Large split with staining	High	Endoscope	Accessible from Ladder.
				General			Incredible veteren tree with poss bly other features in canopy not noticed during the GLTI			Recommend night time surveys with IR camera if works required.
97719 67072	Oak	1.5	18	Rot Hole	S	3	Rot hole with staining	High	Endoscope	Recommend night time surveys with IR camera if works required.

Reptiles

Desktop Study

3.65 Records of the more common and widespread species of reptile, including Adder, Common Lizard, Slow Worm and Grass Snake are present within the surrounding landscape. These recorded are mainly present to the south west of the Site and are associated with Chobham Common. Records of Sand Lizard are also present, within both Chobham Common and to the north west and habitats associated with the Windsor Great Park combined SINC.

Field Survey

3.66 The patchwork of habitats within the Site boundary are considered to have potential to support common and widespread species of reptile. Species such a Slow Worm Anguis fragilis and Grass Snake *Natrix Helvetica* are likely to be present within suitable habitats if present within the surrounding landscape and adjacent habitats. Common Lizard *Zootoca vivipara* and Adder *Vipera berus* have more specific habitat needs, and so are less likely to be present. The rarer and more heavily protected Sand Lizard is unlikely to be present as the habitats are less suitable for this species which is generally restricted in its range and has very specific habitat needs.

3.67 Tussocky grassland, woodland and scrub edges, log piles, compost heaps, and to an extent wooded areas, provide a good selection of habitats to support reptiles when foraging, basking, hibernating and will provide protection from predators. The intensively managed short grassland areas that are the focus for the proposed development are largely unsuitable for reptiles.

Evaluation

3.68 Due to the low impact nature of the proposed development further surveys for reptiles are not considered necessary, however precautionary mitigation measures are proposed to ensure compliance with the relevant legislation, as detailed in **Section 7**. It is likely that the assemblage of reptiles present in suitable habitats within the Site boundary are of value **within the ZoI** only.

Amphibians

Desktop Study

3.69 The data returned by SBIC included records for Great Crested Newt *Triturus cristatus* approximately 1-2km to the south either side of the M3 motorway corridor. A single record for Common Toad *Bufo bufo* was also returned to the south of the M3.

Field Survey

3.70 Two ponds are located within the Site boundary and the proposals include the infilling of a small arm of the most westerly pond. The ponds are extensive, with steep sides in places, and have a large amount of marginal vegetation mainly comprised of Reed Mace *Typha latifoli* and Pendula Sedge *Carex pendula.* The general macrophyte cover across both ponds was low at the time of the survey. Parts of both ponds, mainly the western one, are comprised entirely of reed bed, with no standing water at the time of the survey; this was particularly so for the north western arm of the western pond. Waterfowl are present, with a large amount of duck evidence on the banks. The margins of the ponds are heavily shaded with trees and rhododendron scrub.

3.71 The habitats surrounding the ponds are considered to be of high quality for terrestrial amphibians. The patchwork of habitats including woodland, scrub and tussocky grassland provide good opportunities for foraging, dispersing and hibernating amphibians.

3.72 A Habitat Suitability Index (HSI) assessment of the ponds for Great Crested Newts was carried out which found both of the ponds within the Site to be of "poor" suitability, this is due largely to the presence of waterfowl, in addition to the large extent of macrophyte cover and shaded margins. The results are provided in **Appendix 5**.

3.73 An eDNA survey of the ponds was nevertheless carried out to establish the definitive presence or likely absence of Great Crested Newts, and this returned a negative result (provided in **Appendix 5**). Great Crested Newt are therefore considered likely **absent** from the ZoI.

Evaluation

3.74 Both the ponds and the terrestrial habitats have potential to support the more common species of amphibian including Common Toad *Bufo bufo,* which is considered a Priority species in England under *Biodiversity 2020: A strategy for England's wildlife and ecosystem services* and under Section 41 of The Natural Environment and Rural Communities (NERC) Act 2006, where UKBAP species were recognised as of principal importance for the conservation of biodiversity. The amphibian population is considered to be of value **within the ZoI** only.

Water Vole

3.75 The record search returned from SBIC included seven records for Water Vole located between approximately 280m and 1.5km to the south of the Site, recorded between 2000 and 2012. These records are located mainly on waterways or stream fed ponds.

3.76 The Fish Pond SNCI report states that there is potential for the ponds within the Site to be colonised by Water Vole and therefore a search for evidence of Water Vole was conducted during the ecological appraisal visit. No evidence was found, although due to a large amount of bankside vegetation the survey was constrained due to limited access. Ditches that feed into and out of the ponds were also searched and were more accessible to the surveyor. These were generally dry and unsuitable for Water Vole colonisation. Aerial photography and maps were also considered during the desktop study and the ponds are isolated from the waterways where Water Vole have been recorded. Whilst the SNCI citation states that the ponds are close to areas where Water Vole have been recorded and that this indicates the potential for Water Vole colonisation, this is likely to only be the case with landscape scale enhancements and creation of suitable corridors for dispersal. Water Vole are therefore considered likely **absent** from the ZoI.

Hazel Dormouse

3.77 The data search returned one record of Hazel Dormouse located approximately 1.4km to the south east of the Site, recorded in 2001. The surrounding landscape includes a patchwork of deciduous woodland which is the optimal habitat for this species, although this is relatively fragmented, particularly across the Wentworth Estate where woodland copses and tree lines are isolated by fairways and greens.

3.78 The habitats within the Site boundary include deciduous woodland, although they lack the structural diversity of understorey and shrub layer habitats, in addition to the diversity of food plants for this species, that would comprise an optimal habitat for Hazel Dormouse. The woodland habitat within the site is also fragmented which is likely to present a barrier to dispersal for Hazel Dormouse. Without the connectivity to other more suitable habitats it's unlikely that

the woodland within the Site alone would be large enough to support a population of this species. Hazel Dormice are therefore considered likely **absent** from the ZoI.

Invertebrates

3.79 The semi-natural habitats within the Site boundary are reasonably diverse and provide a good patchwork mosaic for invertebrate species, although these habitats are broken up by substantial areas of intensively managed golf course grassland. None of the habitats are considered likely to provide suitable conditions for more notable species of invertebrate, meaning that the assemblage present is likely to be of importance at no more than **within the ZoI** level. The low impact nature of the proposals are such that significant impacts to invertebrates are unlikely in any event, and measures proposed to secure biodiversity net gain would also benefit the invertebrate assemblage.

Badger

3.80 There is potential for the Site to support Badger *Meles meles*. A thorough search of the Site for signs of Badger in addition to setts was undertaken during the Ecological Appraisal survey but no evidence was found. It is unlikely that Badger setts are present within the Site boundary, although it is possible that Badgers will use the area for foraging if they are present within the wider landscape. Measures to secure the legal protection of Badgers present within the ZoI is considered in **Section 7**.

Summary of Important Ecological Features

3.81 With reference to the assessment criteria set out in **Appendix 3**, IEFs that are considered to be of Local importance or greater to be taken forward for impact assessment in **Section 4** are summarised in **Table 3.4** below.

Table 3.4: Important Ecological Features to be considered further in this EcIA

Feature	Importance
Fish Ponds SNCI	County level
Lowland Mixed Deciduous Woodland within Site boundary but outside SNCI	Local level
Bat assemblage	Local level

4. IMPACT ASSESSMENT

Introduction

4.1 This section examines the potential for significant ecological impacts and effects on IEFs as a result of the biophysical changes arising from the Proposals, during the site clearance and construction phase, and during operation. Where impacts are identified, opportunities for impact avoidance and mitigation are explored. If the potential for significant residual effects remains after mitigation, then opportunities for compensation are also set out.

Impact Assessment

Fish Ponds SNCI & Lowland Mixed Deciduous Woodland within the Site Boundary

4.2 The proposed development will result in the direct loss of SNCI habitats and Lowland Mixed Deciduous Woodland S41 Priority Habitat located outside of the SNCI but within the Site boundary. **Table 4.1** below summarises the extent of habitat loss predicted, and sets out the proportional loss of SNCI habitats compared to the total SNCI habitat areas.

4.3 0.05 ha of Standing Open Water will be lost through the infilling of the northern arm of the western pond to accommodate the proposed short game area. However, this will be compensated by the removal of 0.05 ha of Mixed Scrub habitat that has developed along and outwards from the western bank of this pond, which will result in the restoration of 0.05 ha of Standing Open Water. Loss of Standing Open Water is therefore not reported in **Table 4.1** below.

4.4 In total, the development would result in the loss of 0.5 ha of SNCI habitat, which accounts for 19% of the total SNCI area. Notwithstanding the relatively limited conservation importance of individual habitat components within the SNCI when viewed in isolation, the loss of 19% of a County level importance feature is viewed (on a precautionary basis) as resulting in a **significant negative impact that would be permanent at the County level, in the absence of mitigation**.

4.5 0.03 ha of Lowland Mixed Deciduous Woodland would also be lost within the wider Site lying outwith the SNCI, accounting for only a 4% loss of the total equivalent area. This loss would only be considered significant **within the ZoI**.

4.6 Additional habitat loss or damage beyond that detailed below would be avoided during construction through implementation of a Construction Environmental Management Plan (CEMP), which can be secured as a pre-commencement planning condition.

4.7 Habitat losses can be compensated by the retention and enhancement of habitats within the Site and selected elements within the wider SNCI, by the creation of new habitats within the Site, and through the ongoing positive nature conservation management of all new and retained/enhanced habitats. This habitat enhancement, creation and management can be achieved by the specification and implementation of a suitable Management Plan, which can be secured by planning condition or obligation.

Table 4.1: Summary of habitat loss within the Site boundary and SNCI

UK Habitat Type	Total Area in SNCI (ha)	Total Area of Habitat Lost within SNCI (ha)	% Habitat Loss as a Proportion of Total SNCI Habitat Area	Total Area of LMDW within Site but Outside SNCI	Total Area of LMDW Lost within Site but Outside SNCI	% LMDW Habitat Loss within Site as Proportion of Total
Woodlands	***1.78 ha***	***0.26 ha***	***15%***		N/A	
Lowland Mixed Deciduous Woodland* (LMDW)	1.07	0.20	19%	0.49	0.03	6%
Other Woodland; Broadleaved	0.61	0.06	10%		N/A	
Wet Woodland*	0.089	N/A	N/A		N/A	
Dense Scrub	***0.11 ha***	***0.078 ha***	***71%***		N/A	
Gorse Scrub	0.05	0.02	40%		N/A	
Mixed Scrub	0.06	0.058	97%		N/A	
Grasslands	***2.36 ha***	***0.04 ha***	***2%***		N/A	
Modified Grassland	2.03	0.02	1%		N/A	
Other Lowland Acid Grassland	0.19	0.006	3%		N/A	
Bracken (Grassland)	0.005	N/A	N/A		N/A	
Other Neutral Grassland	0.13	0.01	8%		N/A	
Wetland	***0.006 ha***	***N/A***	N/A		N/A	
Purple Moor Grass and Rush Pastures*	0.006	N/A	N/A		N/A	
Ponds* and Associated Habitats	***0.79 ha***	***0.03 ha***	***10%***		N/A	
Standing Open Water	0.69	N/A	N/A		N/A	
Aquatic Marginal Vegetation	0.1	0.03	30%		N/A	
Other	***0.26 ha***	***0.09 ha***	***35%***		N/A	
Artificial Unvegetated, Unsealed Surface	0.21	0.04	19%		N/A	
Developed Land; Sealed Surface	0.04	0.04	100%		N/A	
Buildings	0.008	0.008	100%		N/A	
Total Areas	**5.30 ha**	**0.50 ha**	**9%**		**0.03 ha**	

* Habitats listed within Section 41 of the NERC Act (2006) as being of 'Principal importance for the conservation of biodiversity in England', otherwise referred to as 'Section 41 Priority Habitats'.

4.8 The Defra biodiversity metric provides a quantitative means of assessing habitat losses against gains, before and after the proposed development, taking account of habitat condition. It also incorporates a means of taking account of the loss of Section 41 Priority Habitat, since failure to accord with the metric's 'trading rules' is identified where losses are not adequately compensated by Priority Habitat-specific gains.

4.9 The proposed development has been assessed using the Defra metric (v4.0), a summary for which is set out in **Section 5**, with further details provided in **Appendix 6**.

4.10 The completed metric demonstrates that, despite the loss of SNCI and Section 41 Priority Habitat, that additional net gains can be achieved over and above the legal minimum 10% soon to be mandated by the Environment Act 2021.

4.11 On this basis, and subject to securing an appropriate Management Plan that will bring about and monitor the habitat creation, enhancement and management to achieve the target habitats and conditions specified within the completed metric, that **no significant negative residual effects** on the Fish Ponds SNCI and Lowland Mixed Deciduous Woodland within the Site (but lying outwith the SNCI) will remain, and that overall **gains in biodiversity will arise**.

Bat Assemblage

4.12 The field surveys have found that the existing building within the Site boundary is of negligible suitability for roosting bats. However, a small number of trees located within the footprint of the proposed development that have suitable bat roost features. These features were noted during the GLTI. Some of these trees may need to be removed to facilitate the development. In the absence of mitigation measures, this has the potential to result in a **significant negative effect** on the bat assemblage likely to be present within the ZoI, although effects would most likely be **temporary** since replacement tree planting is proposed and bats are known to utilise a multitude of roosting sites within their range. It would potentially also result in a **legal offence**.

4.13 Therefore, in order further assesses the suitability of these features for roosting bats, and to determine the presence or likely absence of roosting bats and according requirements for mitigation, it will be necessary to undertake a closer inspection of features at height with the use of a torch and endoscope. This survey should be conducted prior to any tree works.

4.14 In the event that bats are found to be using any of the trees proposed for removal it will be necessary to gain a European Protected Species Mitigation Licence (EPSML) to undertake the work legally. This would entail the provision of compensatory bat roost features to ensure the favourable conservation status of roosting bats is maintained.

4.15 Any tree work will take place under a soft felling methodology which will be included within the CEMP. This will avoid any impacts to roosting bats, should they be present.

4.16 Prior to tree removal, eight woodcrete bat boxes suitable for a range of species will be installed on retained trees within and adjacent to the Site boundary to provide compensatory roosting opportunities for bats. This can be detailed within the CEMP. Boxes will be positioned away from the new building and on various aspects to provide bats with a range of opportunities. Compensatory tree planting is also proposed, as further detailed within the landscape and arboricultural submissions, although will take time to mature such that bat roosting features are created through natural weathering processes. Through implementation of an appropriate

methodology for tree removal, as well as bat box provision and replacement tree planting, the long-term conservation status of bat populations within the ZoI will be maintained and **no significant impacts** are envisaged.

4.17 During operation, the potential for permanent negative effects on nocturnal bats through increases in artificial lighting should be avoided through implementation of a Sensitive Lighting Strategy, which can be secured by planning condition. On this basis, **no significant impacts** on foraging and commuting bats are predicted. *Summary*

4.18 A summary of the impact assessment is provided in **Table 4.2** below.

Table 4.2: Impact assessment summary

IEF	Impact in the Absence of Mitigation	Significance of Effect	Mitigation / Compensation	Residual Effect
Fish Ponds SNCI	Habitat loss	Significant negative, permanent, at the County level	• CEMP • Habitat compensation through restoration of Standing Open Water • Habitat Management Plan for Site and SNCI	None
Lowland Mixed Deciduous Woodland within Site boundary but outside SNCI	Habitat loss	Significant negative, permanent, within ZoI	• CEMP • Habitat Management Plan for Site and SNCI	None
Bat assemblage	Potential loss of roost/roosting opportunities	Significant negative, temporary, at Local level	• CEMP • Endoscope survey prior to tree removal & EPSML/Soft felling • Bat box provision • Compensatory tree planting	None
	Increase in artificial lighting	Significant negative, permanent, at Local level	• Sensitive Lighting Strategy	None

5. BIODIVERSITY NET GAIN

Introduction

5.1 This section describes the way in which the Proposals can achieve biodiversity net gain alongside development, in accordance with the relevant National and Local biodiversity policies and strategies summarised at **Appendix 2**.

Biodiversity Net Gain Calculation

5.2 In summary, using the Defra metric calculator, the following gains in biodiversity are envisaged:

- On-site habitat gain: 3.91 habitat units;
- Off-site gain: 3.43 habitat units;
- Total net unit change: 7.33 habitat units or **34.56% biodiversity net gain** (which satisfies the trading rules regarding the loss of Priority habitats, including all on-site and off-site habitat retention, creation and enhancement).

5.3 Further details regarding the metric calculation are provided in **Appendix 6.** Post-development habitat management can be achieved though implementation of a nature conservation-led Management Plan for the Site and wider elements of the Fish Ponds SNCI, which can be secured through planning condition or obligation.

Other Ecological Enhancements

5.4 Other ecological enhancements that are not captured by the BNG metric calculation will be implemented to enhance the Site for various species. Creation of additional habitats will increase biodiversity, in accordance with national and local biodiversity objectives.

5.5 Built-in nesting bird features will be installed into the new building to include two triple cavity swift nest boxes, or similar, installed under the eaves; and two sparrow terraces installed at eaves level as well. Eight woodcrete bird nest boxes will be installed on trees within the Site boundary, a variety of boxes will be included to suit a range of species.

5.6 A further eight woodcrete bat boxes suitable for a range of species will be installed on retained trees within and adjacent to the Site boundary, in addition to those proposed to provide short-term compensatory bat roosting features.

5.7 Integrated bee bricks will be installed into the fabric of the new building on the southern aspects.

5.8 Within the Site additional habitats for invertebrates, small mammals, reptiles and amphibians will be created. One Stag beetle loggery and reptile hibernacula/brash piles will be created in suitable locations on a south-facing woodland edge.

6. CONSEQUENCES FOR DECISION MAKING

Summary of Mechanisms to Secure Impact Avoidance, Mitigation and Compensation

6.1 The following strategies, which will be secured by planning condition and/or obligation, will be required to ensure the successful implementation of the impact avoidance, mitigation and compensation measures set out in **Section 4**:

- Construction Environment Management Plan (CEMP);
- A Management Plan for the Site and Fish Ponds SNCI;
- Sensitive Lighting Strategy.

Biodiversity Net Gain

6.2 In accordance with national and local policy, the proposed development will deliver biodiversity enhancements which go above and beyond the measures required to avoid, mitigate and/or compensate for the potential impacts described in **Section 4**, as described in **Section 5**, thereby delivering **over 34% biodiversity net gain**. The enhancement measures are intended to benefit known features of ecological importance present within the ZoI, as well as biodiversity in general, and to contribute towards targets set out within the Surrey Biodiversity Strategy (2003) and Policy EE11 within the Runneymede Local Plan, which seek to increase the quality of green infrastructure and enhance connectivity within the landscape. Key deliverables include:

- Further enhancements to the condition of the retained SNCI habitats through native species woodland planting and habitat management;
- Inclusion of a green roof on the proposed building;
- Provision of wildlife boxes for birds, bats and invertebrates; and
- Creation of habitats for invertebrates and reptiles within the woodland/woodland edge habitats, such as the construction of a stag beetle loggey and reptile hibernacula/brash piles.

Conclusion

6.3 This EcIA has predicted that, subject to the implementation of the impact avoidance, mitigation and compensation measures set out in **Section 4**, the proposed development will not result in any significant negative residual effects on IEFs, and will conform to all applicable nature conservation related legislation and policy set out at **Appendix 2**.

6.4 As a result of the enhancement measures proposed, biodiversity net gain will also be secured, in accordance with relevant planning and biodiversity policy.

7. LEGAL CONSIDERATIONS

7.1 Should planning permission be granted for the proposed development, the following legal considerations will apply, in accordance with the following items of legislation:

- The Wildlife and Countryside Act 1981 (as amended); and
- The Badger Protection Act 1992.

Birds

7.2 The building, trees and scrub have potential to support nesting birds. All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), and therefore there will be a need to consider the potential for nesting birds when carrying out demolition works/vegetation removal. Typically, protection of nesting birds can be achieved either by carrying out demolition and clearance works outside of the recognised bird nesting season (March to August inclusive) or preceding works with a check carried out by a suitably experience ecologist not longer than 24 hours prior to works. If any active birds nests are discovered, they would then be protected in situ with an appropriate buffer until and dependent young had fledged the nest.

Reptiles

7.3 Reptiles are likely to be present within suitable habitats within the footprint of the proposals. All reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) and therefore measures will be put in place to ensure that any works avoid harming animals in compliance with the legislation. Due to the low impact nature of the proposals and the presence of surrounding optimal habitats for reptile species it is considered unnecessary to carry out a more targeted reptile survey.

7.4 A working method statement for the vegetation clearance within the development footprint would be included within the CEMP and include:

- All clearance works will be undertaken when common reptiles are likely to be fully active i.e. during the April to September period
- Clearance of logs, brash, stones, rocks or piles of similar debris will be undertaken carefully and by hand.
- Clearance of tall vegetation should be undertaken using a strimmer or brush cutter with all cuttings raked and removed the same day. Cutting will only be undertaken in a phased way which may either include:
    - Cutting vegetation to a height of no less than 30mm, clearing no more than one third of the site in anyone day or;
    - Cutting vegetation over three consecutive days to a height of no less than 150mm at the first cut, 75mm at the second cut and 30mm at the third cut
- Following removal of tall vegetation using the methods outlined above, remaining vegetation will be maintained at a height of 30mm through regular mowing or strimming to discourage common reptiles from returning.

- Ground clearance of any remaining low vegetation (if required) and any ground works will only be undertaken following the works outlined above.
- Any trenches left overnight will be covered or provided with ramps to prevent common reptiles from becoming trapped.
- Any building materials such a bricks, stone etc. will be stored on pallets to discourage reptiles from using them as shelter. Any demolition materials will be stored in skips or similar containers rather than in piles on ground.

Badgers

7.5 Construction works will be completed under a CEMP or similar Method Statement to minimise disturbance to Badgers. The following best practice working methods will be adhered to:

- Overnight covering of all excavations or installation of a ramp to allow animals to exit trenches;
- No fires within 50m of any setts or obvious mammal pathways;
- No storage of machinery or materials within 30m of any setts or obvious pathways; and
- No direct lighting of setts or obvious pathways.

7.6 An update Badger survey should be carried out within no more than 3 months prior to commencement to ensure no new Badger setts have been created within the ZoI of the proposals.

8. REFERENCES

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Maps

MAP 1a Site Location & Statutory Designated Sites

KEY

- Site boundary
- 5km linear distance from site boundary
- Special Protection Areas (SPA)
- Special Areas of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)
- Ramsar
- National Nature Reserves (NNR)
- Local Nature Reserves (LNR)

SCALE: 1:40,000 at A3

0 500 1,000 1,500 2,000 Metres

N

EPR

CLIENT: Wentworth Club Ltd

PROJECT: Wentworth Club

DATE: 25 August 2023

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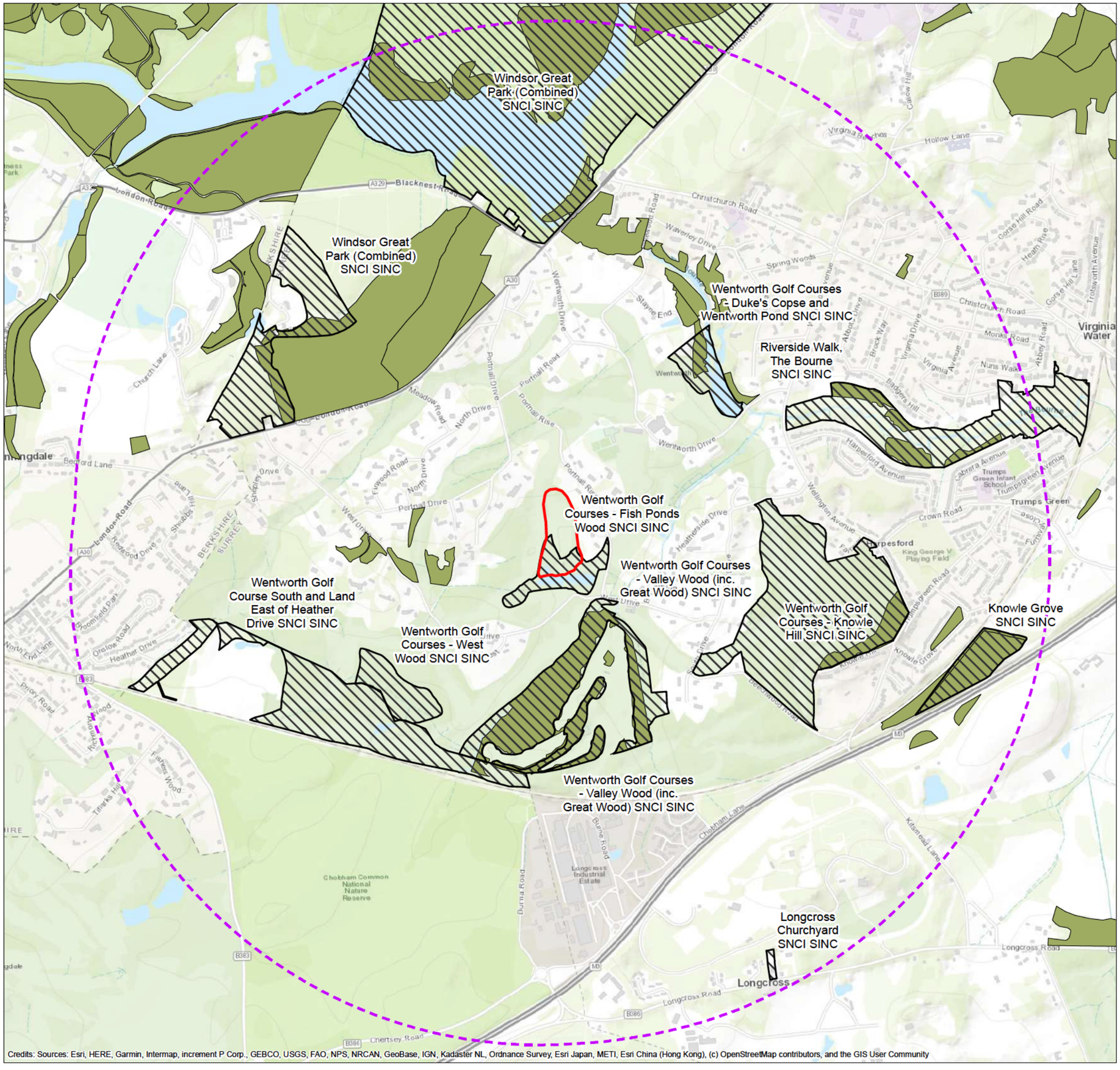
P23/36



Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

MAP 1b Site Location & Sites Protected by Planning Policy

KEY

- Site boundary
- 2km linear distance from site
- Sites of Nature Conservation Importance (SNCIs)
- Provisional Ancient

SCALE: 1:16,000 at A3

0 250 500 750 1,000 Metres

N

EPR

CLIENT: Wentworth Club Ltd

PROJECT: Wentworth Club

DATE: 25 August 2023

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P23/36

MAP 2 Habitats and Features: UKHab Level 3

KEY

- Site boundary
- Site of Importance for Nature Conservation (SNCI) selection
- Built-up areas and gardens, u1
- Acid grassland, g1
- Neutral grassland, g3
- Modified grassland, g4
- Fen marsh and swamp, f2
- Standing open water and canals, r1
- Dense scrub, h3
- Broadleaved mixed and yew woodland, w1

SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres

N

EPR

CLIENT: Wentworth Club Ltd

PROJECT: Wentworth Club

DATE: 25 August 2023

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P23/36

MAP 3 Habitats and Features: UKHab Level 4/5

KEY

- Site boundary
- Site of Importance for Nature Conservation (SNCI)
- Artificial unvegetated unsealed surface, u1c
- Developed land; sealed surface,
- Other neutral grassland, g3c
- Other lowland acid grassland,
- Purple moor grass and rush pastures, f2b
- Aquatic marginal vegetation,
- Bracken, g1c
- Mixed scrub, h3h
- Other woodland; broadleaved,
- Lowland mixed deciduous woodland, w1f
- Wet woodland, w1d
- Arrhenatherum neutral grassland,
- Buildings, u1b5

SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres

N

EPR

CLIENT: Wentworth Club Ltd

PROJECT: Wentworth Club

DATE: 25 August 2023

Y:\Wentworth Club 2358\GIS\Ecol\Map3_UKHabLevel 5_P2358_280723.mxd

P23/36

MAP 4 Ground Level Bat Tree Inspection Survey Results 08/06/2023

KEY

- Site boundary
- Tree survey locations

Tree suitability

- High suitability
- Moderate to high suitability
- Moderate suitability
- Low suitability

SCALE: 1:800 at A3

0 10 20 30 40 50 Metres

N

EPR

CLIENT: Wentworth Club Ltd

PROJECT: Wentworth Club

DATE: 15 August 2023

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P23/36

Appendix 1

Proposed Site Plan

Key

1 Existing Grass Driving Range

2 Existing Hard Standing and Buggy Park

3 Existing Sand Store Building

4 Mature Oak Trees

5 Grass Tees

6 Hole No.17

Existing Tree Canopy Areas

Existing Trees

Application Site Boundary

Glendale

Heatherbrook

Wentworth Lodge

Hunters

01

02

03

04

05

06

Fish Pond

Fish Pond

1:1250
0 5 10 20 50m

N

do not scale this drawing
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CLIENT	ARCHITECT	PROJECT NAME
Name: Wentworth Club Ltd Address: Wentworth Club, Wentworth Drive Virginia Water Surrey GU25 4LS	Mador & Partners Chartered Architects Ltd. 14 Southam Street, London, W10 5PH tel: +44 (0) 20 7281 5550 Email: charles@mador.co.uk	TITLE: Existing Wider Block Site Plan BUILDING: Wentworth Performance Lab

DRAWING No.	JOB / PROJECT No.	STATUS No.	SERIES	REVISION
03-000	218	03	000	P3
SCALE	DATE	STATUS	AUTHOR	CHECKED
1:1250@A3	26/07/23	PLANNING	LK	CM

Key

1 Putting green

2 Lake Infill

3 New Short Game

4 9no All Weather Tees

5 9no Grass Tees

6 Existing mature oak trees

7 Driving range

8 Trees to be removed

9 3no. Grass Tees

10 Existing building to be removed

11 Golf Buggy Drop off

12 Proposed Performance Lab

13 Hole No.17

Existing Tree Canopy Areas

Existing Trees

Trees to be removed

New Mature Trees to be planted for full details refer to drawing1720 L90 200 by Landscape Perspective

Application Site Boundary

Srub Removal & Water Volume Compensation Area

Glendale

Heatherbrook

Wentworth Lodge

Hunters

Fish Pond

Fish Pond

LAKE

PUTTING GREEN

SHORT GAME GREENS

ALL WEATHER PUTTING GREEN

ALL WEATHER PATH

existing path

Brook

250m

200m

150m

100m

50m

0m

1 1250
0 5 10 20 50m

N

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Name: Wentworth Club Ltd Address: Wentworth Club, Wentworth Drive Virginia Water Surrey GU25 4LS	Mador & Partners Chartered Architects Ltd. 14 Southam Street, London, W10 5PH tel: +44 (0) 20 7281 5550 Email: charles@mador.co.uk	TITLE: Proposed Wider Site Plan BUILDING: Wentworth Performance Lab

DRAWING No	JOB / PROJECT No	STATUS No	SERIES	REVISION
03-001	218	03	000	P3

SCALE	DATE	STATUS	AUTHOR	CHECKED
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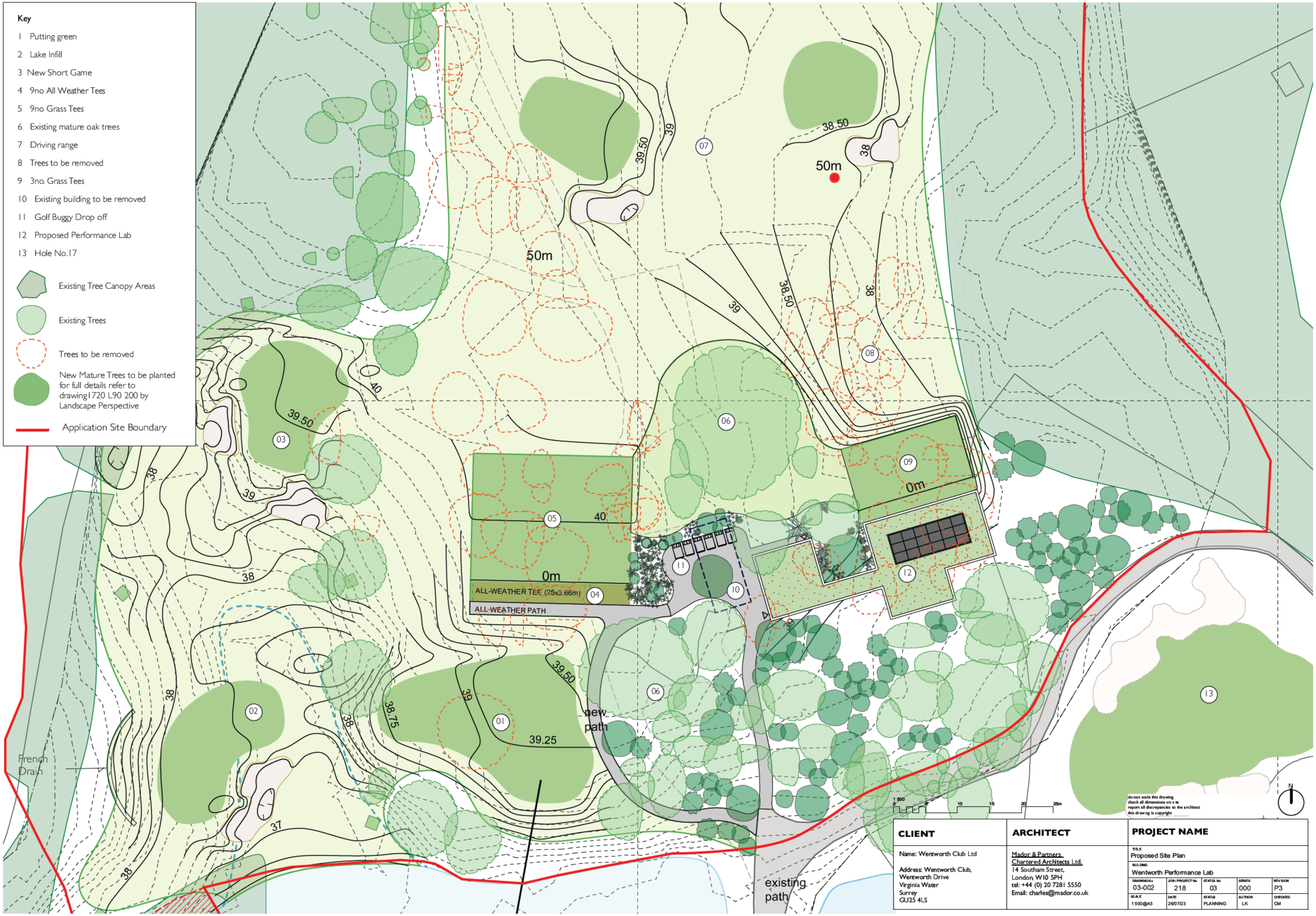

Key
1 Putting green
2 Lake Infill
3 New Short Game
4 9no All Weather Tees
5 9no Grass Tees
6 Existing mature oak trees
7 Driving range
8 Trees to be removed
9 3no. Grass Tees
10 Existing building to be removed
11 Golf Buggy Drop off
12 Proposed Performance Lab
13 Hole No.17
Existing Tree Canopy Areas
Existing Trees
Trees to be removed
New Mature Trees to be planted for full details refer to drawing1720 L90 200 by Landscape Perspective
Application Site Boundary
50m
50m
0m
0m
40
39.50
39
38.50
38
38
39.50
40
39.50
39
38
38
38.75
39
39.25
39.50
37
38
38
ALL-WEATHER TEE (25x3.66m)
ALL-WEATHER PATH
new path
existing path
French Drain
01
02
03
04
05
06
06
07
08
09
10
11
12
13
1 500
0
5
10
15
20
25m
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PROJECT NAME
TITLE
Proposed Site Plan
BUILDING
Wentworth Performance Lab
DRAWING No
03-002
JOB / PROJECT No
218
STATUS No
03
SERIES
000
REVISION
P3
SCALE
1 500@A3
DATE
26/07/23
STATUS
PLANNING
AUTHOR
LK
CHECKED
CM

Key

1 Existing Grass Driving Range

2 Existing Hard Standing and Buggy Park

3 Existing Sand Store Building

4 Mature Oak Trees

5 Grass Tees

6 Hole No.17

Existing Tree Canopy Areas

Existing Trees

Application Site Boundary

New Mature Trees to be planted for full details refer to drawing1720 L90 200 by Landscape Perspective

Tree Survey Data based on Merewood Arboricultural Services Tree Constraints Plan issued 20/07/23

01

02

03

04

05

06

CLIENT	ARCHITECT	PROJECT NAME
Name: Wentworth Club Ltd Address: Wentworth Club, Wentworth Drive Virginia Water Surrey GU25 4LS	Mador & Partners Chartered Architects Ltd. 14 Southam Street, London, W10 5PH tel: +44 (0) 20 7281 5550 Email: charles@mador.co.uk	TITLE: Existing Site Plan - Tree Survey Markup BUILD NO: Wentworth Performance Lab

DRAWING No	JOB / PROJECT No	STATUS No	SERIES	REVISION
03-003	218	03	000	P3

SCALE	DATE	STATUS	AUTHOR	CHECKED
1:500@A3	26/07/23	PLANNING	LK	CM

N

0 5 10 15 20 25m

Key:

- Existing Tree Canopy
- Existing Tree Trunk
- Root Protection Area
- Trees to be removed TBC
- New Mature Trees to be planted for full details refer to drawing1720 L90 200 by Landscape Perspective

Tree Survey Data based on Merewood Arboricultural Services Tree Constraints Plan issued 20/07/23

50m
0m
ALL WEATHER TEE (25x3.66m)
ALL WEATHER PATH
new path
existing path
French Drain
38.50
39.50
39
38
40
38.75
39.25
37

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N

CLIENT	ARCHITECT	PROJECT NAME
Name: Wentworth Club Ltd Address: Wentworth Club, Wentworth Drive Virginia Water Surrey GU25 4LS	Mador & Partners Chartered Architects Ltd. 14 Southam Street, London, W10 5PH tel: +44 (0) 20 7281 5550 Email: charles@mador.co.uk	TITLE: Proposed Site Plan - Tree Survey Markup BUILD NO: Wentworth Performance Lab

DRAWING No	JOB / PROJECT No	STATUS No	SERIES	REVISION
03-004	218	03	000	P3

SCALE	DATE	STATUS	AUTHOR	CHECKED
1:500@A3	26/07/23	PLANNING	LK	CM

Appendix 2

Legislation and Planning Policy Relating to Wildlife and Development in England

LEGISLATION

The Environment Act 2021

The Environment Act 2021 places a requirement on the Secretary of State to make regulations setting out long-term targets for air quality, water, biodiversity, resource efficiency and waste reduction. It also requires the Government to produce an Environmental Improvement Plan, to report on progress towards its goals annually, to meet the targets that are set in relation to the improvement of the natural environment and to produce remedial plans should this not be achieved.

In relation to water quality, the Act places new duties on the Government, Environment Agency and sewerage undertakers to reduce the frequency and harm of discharges from storm overflows on the environment, and for monitoring the quality of watercourses affected by those overflows.

It also includes a requirement for an independent Office for Environmental Protection (OEP) to be established, with responsibilities for monitoring and reporting on progress against environmental improvement plans and targets. The OEP will also have investigation and enforcement powers against public authorities failing to comply with environmental law when exercising their functions.

The Act makes provisions for 10% biodiversity gain to become a condition of planning permission in England, through amendments to the Town and Country Planning Act 1990. This will be measured through a biodiversity metric to be published by the Secretary of State. The Act also establishes Biodiversity Net Gain as a requirement for Nationally Significant Infrastructure Projects (NSIPs).

The Act also strengthens the biodiversity duty placed on public authorities through amendments to the Natural Environment and Rural Communities Act 2006 Section 40, requiring such authorities to not only conserve but also enhance biodiversity when exercising their functions. Public authorities will also be required to publish summary reports of actions taken under Section 40 at least every five years.

The Act provides the legal basis for the creation of Local Nature Recovery Strategies (LNRSs) for England (including specifying their content), and the preparation and publication of species conservation strategies and protected sites strategies.

It also creates a new legal vehicle known as a ‘Conservation Covenant’ which is a voluntary, legally binding private agreement between landowners and responsible bodies (the latter designated by the Secretary of State) which conserve the natural or heritage features of the land, enabling long-term conservation. Conservation Covenants are designed to ‘run with the land’ when it is sold or passed on and are intended to eventually become a primary mechanism for the delivery of Biodiversity Net Gain (BNG).

The Act provides new powers for the Government to amend in future Regulation 9 and Part 6 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the ‘Habitats Regulations’) –

but “only if satisfied that the regulations do not reduce the level of environmental protection provided by the Habitats Regulations”.

Several aspects of protected species licencing have also been adjusted by the Act. These include the removal of several inconsistencies between the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended), ensuring that licences issued under the former piece of legislation also apply under the latter, and making it now possible for licences to be issued under Section 16(3) of the Wildlife & Countryside Act 1981 (as amended) for purposes of overriding public interest. The maximum term of a licence that can be issued by Natural England has also been extended from 2 to 5 years.

All biodiversity-related commitments and requirements (as set out in Part 6 of the Act) will come into force upon the adoption of secondary legislation and regulations, following a period of consultation. Timescales are to be confirmed, but this is currently expected to be around late 2023.

The Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) (known as the “Habitats Regulations”) were originally drawn up to transpose the European Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the “Habitats Directive”) into UK legislation. Following the UK’s exit from the European Union, the Habitats Regulations – as amended by Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 – remain in force until such a time as they are superseded by new or updated domestic legislation.

The Habitats Regulations provide for the designation of both Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) in the UK, which previously formed part of the Natura 2000 network of protected areas across Europe and are now part of the UK’s “National Sites Network”. New National Sites may be designated under the Regulations.

The Regulations also prohibit certain actions relating to European Protected Species (EPS), which include *inter alia* Hazel Dormouse *Muscardinus avellanarius*, Great Crested Newt *Triturus cristatus*, European Otter *Lutra lutra* and all native species of bat.

Further information on SPAs, SACs and European Protected Species is provided in the relevant sub-sections of this Appendix.

Wildlife & Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 is the principal mechanism for the legislative protection of wildlife in Great Britain. Various amendments have occurred since the original enactment. Certain species of bird, animal and plant (including all of the European Protected Species listed above) are afforded protection under Schedules 1, 5 and 8 of the Act. Reference is made to the various Schedules and Parts of this Act (**Table A1.1**) in the section of this Appendix dealing with Legally Protected Species. The Act also contains measures for the protection of the countryside, National Parks, Sites of Special Scientific Interest (SSSIs) and public rights of way as well as preventing the establishment of invasive non-native species that may be detrimental to native wildlife.

Table A1.1: Relevant Schedules of the Wildlife & Countryside Act 1981 (as amended)

Schedule	Protected Species
Schedule 1 Part 1	Protects listed birds through special penalties at all times
Schedule 1 Part 2	Protects listed birds through special penalties during the close season
Schedule 5 Section 9.1 (killing/injuring)	Protects listed animals from intentional killing or injuring
Schedule 5 Section 9.1 (taking)	Protects listed animals from taking
Schedule 5 Section 9.2	Protects listed animals from being possessed or controlled (live or dead)
Schedule 5 Section 9.4a	Protects listed animals from intentional damage or destruction to any structure or place used for shelter or protection
Schedule 5 Section 9.4b	Protects listed animals from intentional disturbance while occupying a structure or place used for shelter or protection
Schedule 5 Section 9.5a	Protects listed animals from being sold, offered for sale or being held or transported for sale either live or dead, whole or part
Schedule 5 Section 9.5b	Protects listed animals from being published or advertised as being for sale
Schedule 8	Protects listed plants from: intentional picking, uprooting or destruction (Section 13 1a); selling, offering for sale, possessing or transporting for the purpose of sale (live or dead, part or derivative) (Section 13 2a); advertising (any of these) for buying or selling (Section 13 2b).
Schedule 9	Prohibits the release of species listed in the Schedule into the wild.
Schedule 9a	Allows environmental authorities to issue species control orders to landowners, obliging them to control/eradicate invasive and/or non-native species.

Further information on legally protected species, designated wildlife sites and invasive non-native species is provided in the relevant sub-sections of this Appendix.

Countryside & Rights of Way Act 2000

Many of the provisions of the Countryside and Rights of Way (CRoW) Act 2000 have been incorporated as amendments into the Wildlife and Countryside Act (1981) and some provisions have now been superseded by later legislation such as The Natural Environment and Rural Communities Act (2006).

The most relevant changes provided by the CRoW Act include the added protection given to SSSIs and other important sites for nature conservation. Importantly, under the Act it became a criminal offence to "recklessly disturb" Schedule 1 nesting birds and species protected under Schedule 5 of the Wildlife and Countryside Act. It also enabled heavier penalties on conviction of wildlife offences.

The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities (NERC) Act 2006 was intended to raise the profile of biodiversity amongst all public authorities (including local authorities, and statutory undertakers) and to make biodiversity an integral part of policy and decision-making processes. The NERC Act also improved wildlife protection by amending the Wildlife and Countryside Act 1981.

Section 40 (S40) of the Act places a 'Biodiversity Duty' on all public bodies to have regard to the conservation of biodiversity when carrying out their normal functions. This includes giving consideration to the restoration and enhancement of species and habitats.

Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of Principal Importance for the conservation of biodiversity in England. This was published in 2007 and is commonly referred to as the "S41 list". Public authorities have a responsibility to give specific consideration to the S41 list when exercising their normal functions. For planning authorities, consideration for Species and Habitats of Principal Importance will be exercised through the planning and development control processes. Further information on Species and Habitats of Principal Importance is provided in the relevant sub-sections of this Appendix.

The Water Environment Regulations 2017

Currently, the overriding legislation relating to freshwater is the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. The Regulations set out objectives to deliver a better water environment based upon achieving a 'good status' for freshwater bodies. The concept of 'good status' is a more rigorous measure of environmental quality than previous measures, which now takes into account not just the chemical status but also the ecological health and the extent of artificial physical modification to rivers.

The Regulations are based upon the concept of protecting water through the management of river basin districts (RBDs) and require the implementation of River Basin Management Plans (RBMPs). Regulation 33 requires public bodies to 'have regard' to the RBMP when making planning decisions, for example through the granting of planning permission with appropriate planning conditions and/or obligations. These could require measures to be implemented (e.g. Sustainable Urban Drainage Systems (SUDS), grey water recycling etc.) or funds to be provided for habitat enhancement schemes.

The Regulations also affect planning policy through the implementation of Programmes of Measures for each river basin district. This involves bringing together funding from various sources and co-ordination of the activities of organisations with an interest in the use of land and water, including developers.

SITES DESIGNATED FOR THE CONSERVATION OF NATURE

There is a hierarchy of nature conservation sites which is based on the level of statutory (legal) protection and the administrative level of importance. Other features of nature conservation interest outside designated sites may also be a material consideration in the determination of planning applications.

Statutory Sites: International

Ramsar Sites, Special Areas of Conservation (SAC) and Special Protection Areas (SPA)

The Conservation of Habitats and Species Regulations 2017 (as amended) provide the primary legal basis for the protection of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) in the UK.

SACs are sites which support internationally important habitats and/or species listed as being of Community Importance in the Annexes of the European Habitats Directive 92/43/EEC. SPAs are sites which support internationally important numbers of bird species listed as being of Community Importance in the Annexes of the European Birds Directive 2009/147/EC. Following the UK's exit from the EU, these now form part of the "National Sites" network rather than the EU Natura 2000 network.

Ramsar sites are wetlands of international importance and although not covered under the Habitats Regulations they are, as a matter of national planning policy, subject to the same strict protection as SACs and SPAs. The majority of terrestrial Ramsar sites in England are also notified as SPAs and/or Sites of Special Scientific Interest (SSSIs).

To avoid confusion with the nationally designated sites described below, EPR refers to SACs and SPAs as 'International sites', given the reasons for their designation.

Any plan or project considered likely to affect an International site (SAC, SPA or Ramsar) must be subject to a Habitats Regulations Assessment (HRA), as set out under Regulation 63 (and Regulation 105 in respect of Land Use Plans) of the Habitats Regulations 2017 (as amended) and the National Planning Policy Framework (NPPF) 2021.

The local authority (or other 'competent authority') carries out the HRA, but the onus is on the developer to provide the necessary information to inform this process, usually in the form of a report.

Under the Habitats Regulations 2017 (as amended), the competent authority must determine in the first instance whether a proposed development is likely to have a significant effect on the SAC/SPA, either alone or in combination with other plans and projects. This stage of the HRA process is known as 'screening'.

If a likely significant effect cannot be precluded (screened out) on the basis of objective information, the competent authority must undertake an 'Appropriate Assessment' to fully assess these implications against the site's conservation objectives. A precautionary approach must be taken with respect to determining whether or not there would be a significant effect, and the appropriate nature conservation body (in most cases Natural England) should be consulted. Except in certain exceptional circumstances prescribed by the Regulations where there are imperative reasons of overriding public interest for allowing a development to proceed, the competent authority may not undertake or authorise the plan or project until they have established (based on the conclusions of the Appropriate Assessment) that the activity will not adversely affect the integrity of the SAC/SPA. This should be the case where no reasonable scientific doubt remains as to the absence of such effects.

Regulation 16A of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 sets out the management objectives of the National Site Network, which can be summarised as follows:

- to maintain or, where appropriate, restore habitats and species listed in Annexes I and II of the Habitats Directive within the UK's territory to a favourable conservation status (FCS); and

- contribute to ensuring, in their area of distribution, the survival and reproduction of wild birds and securing compliance with the overarching aims of the Wild Birds Directive.

The appropriate authorities must also have regard to:

- the importance of protected sites in meeting the above objectives, including breeding, moulting, staging and wintering areas for in the case of migratory bird species;
- their importance for the coherence of the national sites network; and
- the threats of degradation or destruction (including deterioration and disturbance of protected features) on SPAs and SACs.

Government guidance[1] also states that competent authorities have a duty to help protect, conserve and restore the designated features of SACs and SPAs when carrying out their statutory work, including taking decisions that might affect a site. They also have a duty to consider how they can help to prevent the deterioration of the site's habitats from human activity or natural changes, including habitats that support designated species, and prevent significant disturbance of the site's designated species from human activity or natural changes.

Competent authorities include (but are not limited to) local planning authorities, councillors, planning committee members and statutory agencies such as Natural England.

Statutory Sites: National

Nationally important sites include Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs). A development proposal that is likely to affect a nationally important site will be subject to special scrutiny by the local planning authority and Natural England. Certain operations may be permitted. Any potentially damaging operations that could have an adverse effect directly or indirectly on the special interest of the site will not be permitted unless the reasons for the development clearly outweigh the nature conservation and/or geological value of the site itself and the national policy to safeguard such sites, as set out in Section 15 of the National Planning Policy Framework (NPPF).

Sites of Special Scientific Interest

The Wildlife and Countryside Act 1981 (as amended) and the CRoW Act 2000 provide the primary legal basis for the protection of Sites of Special Scientific Interest (SSSIs). These sites have been designated to capture the best examples of England's flora, fauna, geological or physiographical diversity.

Public bodies have a duty to take reasonable steps to conserve and enhance the special features of sites of special scientific interest (SSSIs) when carrying out their statutory duties and giving others permission for works, such as reviewing planning applications.

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[1] https://www.gov.uk/guidance/duty-to-protect-conserve-and-restore-european-sites

National Nature Reserves

National Nature Reserves (NNRs) are declared under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981, as amended by the Environmental Protection Act 1990. They are managed to conserve their habitats or to provide special opportunities for scientific study of the habitats communities and species represented within them. NNRs represent the very best parts of England's SSSIs. The majority of NNRs also have European nature conservation designations.

Statutory Sites: Regional/Local

Local Nature Reserves

Local Nature Reserves (LNRs) are declared by local authorities under the National Parks and Access to the Countryside Act 1949 as living green spaces in towns, cities, villages and countryside. They provide opportunities for research and education, or for simply enjoying and having contact with nature. LNRs are usually protected from development through local planning documents which may be supplemented by local by-laws.

Non-Statutory Sites

Local Wildlife Sites

Local planning authorities may designate non-statutory sites for their nature conservation value based on important, distinctive and threatened habitats and species within a national, regional and local context. These sites are not legally protected but are given some protection through the planning system. These sites may be declared as 'County Wildlife Sites', 'Sites of Importance for Nature Conservation' (SINCs), or 'Sites of Nature Conservation Importance' (SNCIs) in local and structure plans. Non-statutory sites are a material consideration when planning applications are being determined. The precise amount of weight to be attached, however, will take into account the position of the site in the hierarchy of sites as set out above. Further information is typically provided in local level planning policy.

Nature Conservation in Areas Outside Designated Sites

Various other features exist outside designated sites that are important for the conservation of nature and which are a material consideration in the planning system.

Habitats of Principal Importance in England

Fifty-six habitat types have been identified as Habitats of Principal Importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006. Although these habitats are not legally protected, the NPPF, Government Circular 06/05, good practice guidance and the NERC Act place a clear responsibility on planning authorities to further the conservation of these habitats. They can be a material consideration in planning decisions, and so developers are advised to take reasonable measures to avoid or mitigate impacts to prevent their net loss and to enhance them where possible. Additional guidance to developers is typically provided in local level planning policy.

The S41 list also includes species as explained below under 'Species of Principal Importance in England'.

Networks of Natural Habitats

Networks of natural habitats link sites of biodiversity importance and provide routes or stepping stones for the migration, dispersal and genetic exchange of species in the wider environment. Examples include rivers with their banks, traditional field boundary systems (such as hedgerows), ponds and small woods. Local planning authorities are encouraged through the NPPF to maintain networks by avoiding or repairing the fragmentation and isolation of natural habitats through planning, policies and development control.

Hedgerows

Hedgerows can act as wildlife corridors that are essential for migration, dispersal and genetic exchange of wild species. Hedgerows that qualify as a Habitat of Principal Importance under S41 of the NERC Act 2006 are a material consideration in the planning system.

Under the Hedgerow Regulations 1997, it is an offence to remove a hedgerow classed as 'important' under the criteria set out by the Regulations without submitting a notice to the Local Planning Authority and waiting for their decision. The Regulations are aimed at countryside hedges and do not apply to hedges around private dwellings or where planning permission has been granted for a project that includes hedge removal. Hedgerows that satisfy wildlife, archaeological, historical or landscape criteria qualify as 'important' under the Regulations. If a hedgerow is not important, the Local Planning Authority may not prevent its removal; however, Local Planning Authorities are required under the Regulations to protect and retain important hedgerows unless satisfied that the circumstances justify their removal.

Tree Preservation Orders

Tree Preservation Orders (TPOs) may be declared under the Town and Country Planning Act 1990 and the Town and Country Planning (Trees) Regulations 1999 to protect individual trees and woodlands from development and cutting. TPOs are primarily put in place to preserve amenity or for landscape conservation reasons. The importance of trees as wildlife habitat may be taken into account, but alone is not sufficient to warrant a TPO. For this reason, TPOs do not fit comfortably under the remit of nature conservation and are generally dealt with by an arboricultural consultant rather than an ecologist. Further guidance on TPOs in relation to development is available from the Department for Communities and Local Government.

Ancient Woodland & Veteran Trees

Ancient woodlands are defined as areas continuously wooded since at least 1600 AD. Even an ancient wood which has been replanted may still have remnants of ancient woodland wildlife and historical features and has potential to be restored. Ancient woodland is not a statutory designation and does not provide legal protection, but local authorities are advised under the NPPF and National Planning Practice Guidance (NPPG) not to grant planning permission for any development that would result in the loss or deterioration of ancient woodland, ancient trees or veteran trees unless there are 'wholly exceptional reasons' and 'a suitable compensation strategy in place'. Local Planning Authorities must take into account Natural England and the Forestry Commission's *Standing Advice for Ancient Woodland and Veteran Trees,* available on the www.gov.uk website.

Surface & Ground Waters

Surface waters (including flowing and standing water) and ground water can directly and indirectly impact upon the conservation of nature.

Guidance on pollution prevention is hosted on the Government's website and focuses on regulatory requirements. This covers topics including the prevention of pollution if you are a business, managing business and commercial waste, oil storage, working on or near water, and managing water on land. Careful planning and the application of these guidelines can help reduce the risk of construction and maintenance work causing pollution to surface and ground waters. Some activities with the potential to impact watercourses or groundwater may require consent under the Water Resources Act 1991.

Water Resources Act (WRA) 1991

Under the WRA there is strict regulation of discharges (including sediment, chemicals, nutrients) to rivers, lakes, estuaries and groundwaters. It also aims to ensure that polluters cover the costs associated with pollution incidents.

SPECIES PROTECTION

Legally Protected Species

The species listed in the following subsections are protected by law in England. When preparing a planning application, it is essential to determine the presence or likely absence of legally protected species and the extent to which they may be affected by a proposed development. This can best be achieved by undertaking surveys early in the planning process. Avoidance and/or mitigation measures may be required to address any predicted impacts upon protected species and may necessitate a licence. The Government website offers standing advice from Natural England and DEFRA which can be applied to planning applications that affect protected species.

Bats

There are 18 species of bat in the UK, seven of which are Species of Principal Importance in England. All bats and bat roosts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Bats are also a European Protected Species protected under the Habitats Regulations 2017 (as amended). It is an offence to:

- Intentionally or deliberately kill, injure or capture bats;
- Intentionally, deliberately or recklessly disturb bats in such a way as to be likely to significantly affect the ability of any significant group of bats to survive, breed, or rear or nurture their young or the local distribution of or abundance of a species of bat;
- Intentionally, or recklessly damage, destroy or obstruct any place used for shelter or protection (i.e. bat roosts) or intentionally or recklessly disturb a bat whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a bat; and
- Possess, sell or transport a bat, or anything derived from it.

Development proposals affecting bats or their roosts require a European Protected Species mitigation licence from Natural England.

Great Crested Newt

The Great Crested Newt *Triturus cristatus* is a Species of Principal Importance in England. It is legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is afforded

significant further protection as a European Protected Species under the Habitats Regulations 2017 (as amended). Collectively, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Great Crested Newts;
- Intentionally, deliberately or recklessly disturb Great Crested Newts in such a way as to be likely to significantly affect the ability of any significant group of Newts to survive, breed, or rear or nurture their young or the local distribution of or abundance the species;
- Intentionally or recklessly damage, destroy or obstruct any place used by Great Crested Newts for shelter or protection, or intentionally or recklessly disturb a Great Crested Newt whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Great Crested Newt; and
- Possess, sell or transport a Great Crested Newt, or anything derived from it.

Development proposals affecting the Great Crested Newt require a European Protected Species mitigation licence from Natural England.

Intentional or reckless behaviour leading to an offence being committed as detailed above may result in maximum penalties of:

- Up to £5,000 fine per offence committed;
- A custodial sentence of up to six months instead of, or in addition to, a fine; and/or
- Items of equipment involved in committing the offence may be seized and detained.

In addition to the above penalties, it is likely that any EPS mitigation licence obtained for a site will be revoked whilst any wildlife offence is investigated. This will lead to immediate temporary and, depending on investigation outcomes, possible permanent restrictions on site works, as well as associated cost.

Hazel Dormouse

The Hazel Dormouse *Muscardinus avellanarius* is a Species of Principal Importance in England. It is legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is afforded significant further protection as a European Protected Species under the Habitats Regulations 2017 (as amended). Collectively, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Dormice;
- Intentionally, deliberately or recklessly disturb Dormice in such a way as to be likely to significantly affect the ability of any significant group of Dormice to survive, breed, or rear or nurture their young or the local distribution of or abundance of the species;
- Intentionally or recklessly damage, destroy or obstruct access to places used by Dormice for shelter or protection (whether occupied or not) or intentionally or recklessly disturb a Dormouse whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Dormouse;
- Possess or transport a Dormouse (or any part thereof) unless under licence; and
- Sell or exchange Dormice.

Development proposals affecting the Dormouse require a European Protected Species mitigation licence from Natural England.

European Otter

The European Otter *Lutra lutra* is a Species of Principal Importance in England. It is legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is afforded significant further protection as a European Protected Species under the Habitats Regulations 2017 (as amended). Collectively, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Otters;
- Intentionally, deliberately or recklessly disturb Otters in such a way as to be likely to significantly affect the ability of any significant group of Otters to survive, breed, or rear or nurture their young or the local distribution of or abundance of Otters;
- Intentionally or recklessly damage, destroy or obstruct access to places used by Otters for shelter or protection (whether they occupied or not) or intentionally or recklessly disturb an Otter whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of an Otter;
- Possess or transport an Otter (or any part thereof) unless under licence; and
- Sell or exchange Otters.

Development proposals affecting the Otter require a European Protected Species licence from Natural England.

Reptiles

All four of the widespread British species of reptile, namely the Common Lizard *Zootoca vivipara,* Slow-Worm *Anguis fragilis*, Grass Snake *Natrix helvetica (*previously *Natrix natrix)* and Adder *Vipera berus*, are Species of Principal Importance in England. They are protected under Schedule 5 (Sections 9.1, 9.5a, 9.5b) of the Wildlife & Countryside Act 1981 (as amended) from intentional killing, injury and trade. The habitat of the four widespread reptiles is not legally protected; however the replacement of habitat lost through development may be required through the planning system. Mitigation for these species is not subject to licensing by Natural England but should nonetheless be planned to minimise disturbance and potential project delays.

The Smooth Snake *Coronella austriaca* and the Sand Lizard *Lacerta agilis* are the rarest reptile species in Britain. In addition to the protection that is afforded to the widespread species of reptile listed above, these species are protected further under Schedule 5 (Sections 9.4b and 9.4c) of the Wildlife and Countryside Act 1981 (as amended). They are also European Protected Species protected under the Habitats Regulations 2017 (as amended). This legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Sand Lizards or Smooth Snakes;
- Intentionally, deliberately or recklessly disturb Sand Lizards or Smooth Snakes in such a way as to be likely to significantly affect the ability of any significant group of Sand Lizards or Smooth Snakes to survive, breed, or rear or nurture their young or the local distribution or abundance of either species;
- Intentionally or recklessly damage, destroy or obstruct any place used by Sand Lizards or Smooth Snakes for shelter or protection, or intentionally or recklessly disturb a Sand Lizard or Smooth Snake whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Sand Lizard or Smooth Snake;
- Keep, sell, or exchange Sand Lizards or Smooth Snakes or their eggs; and
- Deliberately take or destroy their eggs.

Development proposals affecting Smooth Snake or Sand Lizard require a European Protected Species mitigation licence from Natural England.

Water Vole

The Water Vole *Arvicola terrestris* is a Species of Principal Importance in England. The legal protection for Water Voles was increased in 2008 to fully cover the species under Section 5 of the Wildlife and Countryside Act 1981 (as amended). The legislation makes it an offence to:

- Intentionally or deliberately (but not recklessly) kill, injure or take Water Voles;
- Intentionally, deliberately or recklessly damage, destroy or obstruct access to any structure or place used by Water Voles for shelter or protection;
- Intentionally, deliberately or recklessly disturb Water Voles whilst they occupy a structure or place used for that purpose;
- Sell Water Voles or offer or expose for sale or transport for sale; and
- Possess or control live or dead Water Voles or derivatives.

Developers who wish to maintain, build on or alter areas used by Water Voles must ensure that unnecessary damage is avoided and all reasonable steps are taken to minimise impacts on Water Voles and their burrows. The Wildlife and Countryside Act provides a defence against the offences listed above, provided the action is the incidental result of an otherwise lawful operation and could not reasonably have been avoided.

A licence to displace Water Voles must be obtained from Natural England before conducting any activities involving displacement operations (this is different to a conservation licence, which is required for survey methods that involve disturbing Water Voles or their burrows, or capturing them). To obtain a displacement licence, it is necessary to demonstrate that the activity/activities will result in a conservation benefit for Water Voles.

Birds

49 species of bird are listed as Species of Principal Importance in England. All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence, with certain exceptions (e.g. game birds), to intentionally kill, injure or take any wild bird and to take, damage or destroy their nests or eggs.

Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) affords extra protection for certain species and applies harsher penalties for offences. Any intentional or reckless disturbance of a Schedule 1 bird, whilst it is nesting or rearing dependent young, constitutes an offence.

Regulation 10 of the Conservation of Habitats and Species Regulations 2017 (as amended) requires appropriate authorities and conservation bodies, in the exercise of their functions, to take such steps that they consider appropriate in order to secure "*the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat (…)*".

European Badger

The Protection of Badgers Act 1992 offers considerable protection to both Badgers and Badger setts. This legislation was enacted to protect the European Badger *Meles meles* against baiting and not as a means of species recovery as it is common in England. It is an offence to cruelly treat, kill or take Badgers, but it is also illegal to intentionally or recklessly damage or disturb a Badger sett while it indicates signs of current use by a Badger.

The Government website contains information to help developers and their proponents avoid sett disturbance and to identify setts that are in current use. It is important to maintain adequate foraging territory in development proposals affecting Badgers as the destruction or severance of large areas of foraging territory could also be taken to include habitat loss. Licences to disturb Badgers and their setts in respect of development may be issued by Natural England provided provisions are made to minimise disturbance.

Wild Mammals

All wild mammals are protected against cruelty under the Wild Mammals (Protection) Act 1996, which makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

White-Clawed Crayfish

The White-Clawed Crayfish *Austropotamobius pallipes* is a Species of Principal Importance in England. Outside designated sites (e.g. SACs), the White-Clawed Crayfish receives limited protection under Schedule 5 (Sections 9.1, 9.5a and 9.5b) of the Wildlife and Countryside Act 1981 (as amended), the Habitats Regulations 2017 (as amended) and the Salmon and Freshwater Fisheries Act 1975. This legislation does not provide strict protection of individual crayfish or their habitats but it does prevent prohibit the capture of this species without a licence. A conservation licence must therefore be obtained from Natural England before conducting any mitigation involving the capture and handling of this species.

European Eel

The Eels Regulations 2009 (as amended in 2011) aim to combat the population decline of the European eel *Anguilla anguilla* through protection of migration routes and controls on the numbers of eels allowed to be taken. In order to protect migration routes, any structures which may prevent upstream or downstream migration of eels must be reported to the Environment Agency. Eel passages must be constructed where needed and maintained in a good condition.

Freshwater Fish

The Salmon and Freshwater Fisheries Act 1975 protects freshwater fish, particularly salmon and trout. It prevents the destruction of spawning grounds and the obstruction of migratory passages through the building of weirs, dams etc.

Licences for Development

Licences are required to permit activities prohibited under wildlife legislation, namely the disturbance or capture of protected species or damage to their habitats. Natural England is the licensing authority in England. Licences are only issued for certain purposes, which are set out in the legislation, and only

where there is a valid justification. The licences most relevant to development scenarios are discussed below.

European Protected Species Mitigation Licences

A European Protected Species mitigation licence (EPSL) is required from Natural England to undertake any development that is reasonably likely to result in an offence in respect of a European Protected Species protected under Schedule 2 of the Habitats Regulations 2017 (as amended); including *inter alia* all species of bats, Hazel Dormouse, Great Crested Newt and European Otter. Natural England must be satisfied that the following three tests are satisfied before it will issue a licence covering a European Protected Species:

1. The proposal is necessary to preserve public health or public safety, or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
2. There is no satisfactory alternative; and
3. The proposal will have no detrimental effect to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Conservation Licences

In the context of development, conservation licences are normally only relevant to mitigation involving the capture of Water Voles or White-Clawed Crayfish. Conservation licences are granted to permit the trapping and translocation of these species on the condition that the development activity is properly planned and executed and thereby contributes to the conservation of the population of the species.

Badger Licences

Licences to disturb Badgers and their setts in respect of development may be issued by Natural England, provided provisions are made to minimise disturbance.

Species of Principal Importance in England

943 species have been identified as being of Principal Importance for the conservation of biodiversity in England under Section 41 (S41) of the NERC Act 2006. The S41 list includes species found in England which have been identified as requiring action under the now superseded UK Biodiversity Action Plan 2007 (plus the Hen Harrier). While many of these species may not be legally protected (some are protected under the legislation described above), there is a clear responsibility on local planning authorities to further their conservation. These species can be a material consideration in development control decisions and so developers are advised to take reasonable measures to avoid or mitigate impacts to prevent the net loss of these species, and to enhance their habitats where possible. Additional guidance to developers is typically provided in local level planning policies.

Invasive Non-Native Species

There are a number of species not ordinarily resident in the UK, such as Japanese Knotweed. Those which pose a significant threat, if uncontrolled, to our ecology and economy are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). For an offence to be committed, a species must be released or allowed to escape into the wild. For example, if a plant listed on Schedule 9 is not

adequately controlled by a land owner, once they are aware that it is present, and the species is allowed to spread into adjoining areas, then this could constitute an offence.

Japanese Knotweed is also classed as ‘controlled waste’ under the Environment Protection Act 1990 (as amended) and if taken off site it must be disposed of safely at a licensed landfill site. Soil containing rhizome material should also be regarded as contaminated and treated accordingly.

Species Control Orders

A new schedule 9A was inserted into the Wildlife and Countryside Act 1981 (as amended) by Sections 23 to 25 of the Infrastructure Act 2015. This gives environmental authorities (in England the Secretary of State, Environment Agency, Natural England and the Forestry Commission) the power to offer ‘species control agreements’ to landowners in respect of invasive and/or non-native species, such as Japanese Knotweed. If the landowner does not comply with a species control agreement, or refuses to enter into one, the environmental authority may issue a ‘species control order’, requiring the owner to eradicate or control the species, or to allow the environmental authority access to carry out these operations themselves.

If the owner does not comply with the species control order, the maximum penalty if convicted is a fine of up to £40,000 and/or imprisonment for up to 51 weeks. The environmental authority can also recover costs for carrying out the necessary work themselves.

PLANNING POLICY & GUIDANCE

This section set out the main planning policy and government guidance that relates to the conservation of nature at all levels of government.

National Level

National Planning Policy Framework 2021

The National Planning Policy Framework (NPPF) 2021 sets out the Government’s planning policies for England and how these should be applied in local-level policy and decision making. The NPPF has a clear “presumption in favour of sustainable development” (paragraph 11), with economic, social and environmental objectives. This presumption does not apply where a plan or project has failed the ‘appropriate assessment’ test under the Habitats Regulations (paragraph 182).

Section 15 of the NPPF provides guidance on conserving and enhancing the natural environment through the planning system, as summarised below.

Firstly, planning policies and decisions should contribute to and enhance the natural and local environment by applying the following key principles:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and
- preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.

Section 15 also requires planning policies and decisions to limit the impact of artificial light pollution on nature conservation.

Secondly, when determining planning applications, local planning authorities should apply the following key principles:

- if significant harm resulting from a development cannot be avoided, adequately mitigated or (as a last resort) compensated for, then planning permission should be refused;
- proposed development that is likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should normally be refused;
- planning permission should normally be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and ancient or veteran trees, unless there are 'wholly exceptional reasons' and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported, while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

In the case of SSSIs and irreplaceable habitats, exceptions may be made if it can be clearly demonstrated that the benefits of the development, in that location, clearly outweigh the costs in terms of loss or adverse impacts.

Section 15 specifies that listed or proposed Ramsar sites, potential European sites, and sites identified or required as compensatory measures for adverse effects on designated/listed or potential/proposed European and Ramsar sites should be given the same protection as designated European sites.

Section 15 includes the following text on air quality:

- Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas;
- Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications; and
- Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.

The NPPF also sets out principles for plan-making, including the allocation of land with the least environmental or amenity value, and taking a strategic approach to maintaining and enhancing networks of habitats and green infrastructure by identifying, mapping and safeguarding components of local wildlife-rich habitats, wider ecological networks, wildlife corridors and stepping stones, and those areas identified by national and local partnerships for habitat management, enhancement, restoration or creation.

Government Circular 06/05: Biodiversity and Geological Conservation

The Government produced Circular 06/05 to provide guidance on the application of the law to the conservation of nature. Although the document is in the process of being updated, Paragraphs 98 and 99 remain relevant as they set out the following principles and obligations:

- The presence of protected species is a material consideration when determining a development proposal;
- Local authorities should consult with Natural England before granting permission, and consider imposing planning conditions or obligations to secure the long-term protection of the species;
- The presence of protected species, and the extent to which thy may be affected by the proposed development, must be established before permission is granted;
- Given the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development.

MHCLG Planning Practice Guidance

Revised and updated Planning Practice Guidance (PPG) was launched by the Department for Communities and Local Government (now the Ministry of Housing, Communities and Local Government, MHCLG) as a web-based tool in March 2014 to accompany the NPPF. The webpages are set out in a Q&A format. The PPG consolidates and supersedes existing guidance on a range of planning-related topics, clarifies some of the statements made in the NPPF, and provides links to relevant legislation and other sources of advice.

The Guidance outlines a number of important principles in relation to nature conservation and biodiversity, including the need to integrate biodiversity into all stages of the planning process and to consider opportunities to enhance biodiversity and contribute to the Government's commitments and targets set out in '*Biodiversity 2020: A strategy for England's wildlife and ecosystem services'*.

The guidance also requires that "an ecological survey will be necessary in advance of a planning application if the type and location of development are such that the impact on biodiversity may be significant and existing information is lacking or inadequate", and recommends that "local planning authorities should only require ecological surveys where clearly justified, for example if they consider there is a reasonable likelihood of a protected species being present and affected by development."

Other guidance

In addition to the Planning Practice Guidance, various other forms of guidance and standards are available in relation to biodiversity and the development process. Of particular note is '*British Standard BS42020:2013 Biodiversity – Code of practice for planning and development*, published in August 2013, which replaces *Planning to Halt the Loss of Biodiversity (PAS 2010): Biodiversity conservation standards for planning in the United Kingdom'*.

This document is designed to complement the NPPF and is aimed at organisations concerned with ecological issues throughout the planning process, including local authorities, developers, planners and ecological consultants. It sets out step-by-step recommendations on how to incorporate biodiversity considerations at all stages of the planning process, with a focus on the provision of consistent, high quality and appropriate ecological information, effective decision making, and high standards of professional conduct and competence.

Regional Level

Regional plans (such as the South East Plan Regional Spatial Strategy) have been revoked, but some specific policies have been saved. The only policy saved from the South East Plan is Policy NRM6, which relates to the Thames Basin Heaths Special Protection Area (TBH SPA).

Local Level

The Runneymede 2030 Local Plan (Adopted 16th July 2020) sets out the current planning policies for the Wentworth and the surrounding area. The following policies are related to biodiversity and conservation in the borough.

- *"Policy EE9: Biodiversity, Geodiversity and Nature Conservation*
  Development on or adjacent to the following hierarchy of important sites in the Borough will need to pay particular attention to the requirements of this policy.
  1) Ramsar sites (international).
  2) Special Protection Areas and Special Areas of Conservation (European).
  3) Sites of Special Scientific Interest and National Nature Reserves (National).
  4) Ancient Woodland, ancient or veteran trees; and/or trees and hedgerows protected by a Tree Preservation Order.
  5) Sites of Nature Conservation Importance, Local Nature Reserves.
  6) Other priority habitats and priority species not identified in 1, 2, 3, 4 or 5 above (Local); designated Local Green Space where richness of wildlife has been identified as a contributing factor in its designation; and any area in Runnymede that may be in future identified as a Nature Improvement Area; trees considered to make a significant contribution to their surroundings, individually or as a group"

- *"Policy EE10: Thames Basin Heaths Special Protection Area*
  Within 400m of the boundary of the Special Protection Area, no additional residential development will be permitted. Non-residential development within 400m may require an Appropriate Assessment under the Habitats Regulations.
  All additional residential development (including strategic allocations) beyond the 400m Special Protection Area exclusion zone, but within 5km of the Special Protection Area boundary, will need to put in place adequate measures to avoid and mitigate potential effects on the Special Protection Area. These must be delivered prior to occupation and in perpetuity and agreed with Natural England. To meet these requirements developments will need to:
    - *Provide or contribute to Suitable Alternative Natural Green Space at a standard of at least 8 hectares per 1000 residents (minimum after any discounting); Proposals for new Suitable Alternative Natural Green Spaces will not be accepted unless agreed by Natural England; and*
    - *Make a financial contribution towards Strategic Access Management and Monitoring at the Special Protection Area. or*

- *Contribute towards enhancing the strategic Suitable Alternative Natural Green Space provision that is made in the Council's Special Protection Area Interim Guidance or any subsequent update of it through the existing licensing scheme or any future agreed mechanism. Developments of fewer than 10 dwellings should not normally be required to be within a specified distance of SANG land; and*
- *Make a financial contribution towards Strategic Access Management and Monitoring at the Special Protection Area. Or*
- *In exceptional circumstances, evidence may demonstrate that a bespoke solution will be effective in avoiding or mitigating the adverse impacts of housing development and visitor pressure on the Special Protection Area. In these cases, the proposed measures must be agreed by Natural England.*

For sites beyond the 5km zone of influence, an Appropriate Assessment may be required under the Habitats Regulations Assessment to determine whether there will be a likely impact on the integrity of the Thames Basin Heath Special Protection Area. This is likely for residential developments of 50 new dwellings and above between 5km and 7km from the Special Protection Area. Likewise, development that falls within a C1 or C2 use may have an impact on the integrity of the SPA. For any sites where impacts are likely, a bespoke solution will need to be assessed on a case by case basis and agreed with Natural England but will be based on the above three options.

Over the lifetime of the Local Plan, should the Council not be able to demonstrate there is sufficient Suitable Alternative Natural Greenspaces capacity for mitigation, the Local Plan will need to be reviewed."

- *"Policy EE11: Green Infrastructure*
  The Council will seek to avoid further habitat fragmentation of Green Infrastructure by encouraging development proposals which restore, maintain and enhance habitat connectivity, in particular in Biodiversity Opportunity Areas as shown on the policies map.
  The Council will seek development to contribute towards the delivery of a high quality multi-functional Green Infrastructure network by requiring proposals to provide and make enhancements to onsite Green Infrastructure assets. In exceptional circumstances, if it is not possible to provide on-site Green Infrastructure as it is neither feasible nor viable, a financial contribution towards provision and enhancement of Green Infrastructure and services may be sought.
  The Council will ensure the effective use of Tree Preservation Orders to protect significant trees and will encourage the proper care and maintenance of trees by requiring owners to submit applications to work on protected trees and ensure that protected trees are replaced if they have to be felled."

BIODIVERSITY PLANS AND STRATEGIES

The NERC Act 2006 places a duty on local authorities to have due regard to biodiversity when exercising their normal functions, and the NPPF requires planning policies to *"promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species, and identify and pursue opportunities for securing measurable net gains for biodiversity"* (paragraph 174). These targets are set out in a range of biodiversity plans and strategies from the international through to the district level.

An overview of the key biodiversity plans and strategies in the UK, and their implications for development, are set out below.

National level

The Government's Environmental Improvement Plan 2023 is the first revision of the 25 Year Environment Plan published in 2018. It sets out ten goals aimed at restoring nature – of which the 'apex goal' is to halt the decline of biodiversity. The EIP 2023 includes targets and commitments to:

- Halt the decline in species abundance by 2030;
- Restore or create more than 140,000 hectares of wildlife-rich habitat outside protected sites by 2028;
- Improve the Red List Index for England by 2042;
- Achieve favourable condition for 48% of designated features in Marine Protected Areas by 2028;
- Complete update condition assessments for all SSSIs by 2028;
- Increase tree canopy and woodland cover by 0.26% by 2028;
- Reduce water pollution from agricultural nitrogen, phosphorus and sediments by at least 40% by 2038; and
- Reduce phosphorus loadings from treated wastewater by 80% by 2038.

Other targets have been set in relation to, water demand, residual waste, air quality, and. pollution from abandoned metal mines and agriculture.

The '*UK Biodiversity Action Plan 2007'* (UK BAP) has been superseded by the '*UK Post-2010 Biodiversity Framewo*rk' and individual national biodiversity strategies. The UK Framework sets out the overarching vision, strategic goals and priority activities for the UK's work towards international biodiversity targets (known as the 'Aichi Targets'), as agreed by 192 parties at the UN Convention on Biological Diversity in 2010.

In England, '*Biodiversity 2020: A strategy for England's wildlife and ecosystem services'* is the national biodiversity strategy, which has the stated mission *"(…) to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people."* In order to focus activity and assess performance in achieving this mission, Biodiversity 2020 sets out objectives relating to terrestrial and marine habitats and ecosystems, species and people.

Local level

While BAPs at the national level have now been superseded by the *'UK Post-2010 Biodiversity Framework* and *Biodiversity 2020: A strategy for England's wildlife and ecosystem services'*, many county and district level BAPs still exist. *'The Surrey Biodiversity Plan: Achievements and Future Action'* has been produced by the Surrey Biodiversity Partnership (2010) to set out a framework for the conservation and enhancement of the natural environment within the county of Surrey.

Biodiversity Net Gain

The Environment Act 2021 makes provisions for 10% biodiversity gain, as measured by a metric (currently published by Defra), to become a condition of planning permission in England. This will come into force upon the adoption of secondary legislation and regulations. Timescales are to be confirmed, but this is currently expected to be around late 2023. A publicly accessible register of Biodiversity Gain Sites will be set up during this time, and the Secretary of State will publish and consult on the biodiversity metric to be used, as well as on the wording of the secondary legislation itself.

The Act specifies that biodiversity gain can be delivered on and/or offsite, and establishes the basis for purchasing off-site credits to meet the 10% obligation if required. Land used to deliver biodiversity gain must be maintained for at least 30 years, and planning conditions will require a biodiversity gain plan to be submitted to and approved by the planning authority prior to commencement of development.

It also clarifies that the baseline biodiversity value of a site should be taken from the date on which planning consent is granted, unless otherwise agreed with the LPA (but not before the secondary legislation comes into force). This excludes any activities undertaken without planning permission (or other relevant permissions) after 30 January 2020 which have had the effect of reducing the biodiversity value of the land. In such cases, “the pre-development biodiversity value is to be taken to be its biodiversity value immediately before the carrying on of the activities.”

Biodiversity net gain (BNG) is already enshrined in the key principles of the NPPF, and some local planning policies already include a requirement to deliver a minimum net gain figure (typically 10% or 20%).

Enhancement measures may not just benefit biodiversity. There are many functional benefits to be won from strategically planned green infrastructure projects such as semi-natural urban green spaces, sustainable drainage schemes (SUDS) and green roofs.

Appendix 3
Assessment Methods

ECIA ASSESSMENT METHODOLOGY

Overview

The approach to Ecological Impact Assessment (EcIA) taken in this report takes account of guidance in the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2.' (CIEEM, 2018). The Preface of the CIEEM EcIA Guidelines states:

"Biodiversity: Code of practice for planning and development published by the British Standards Institute (BS 42020:2013) cites the CIEEM EcIA Guidelines as the acknowledged reference on ecological impact assessment. The Guidelines are consistent with the British Standard on Biodiversity, which provides recommendations on topics such as professional practice, proportionality, pre-application discussions, ecological surveys, adequacy of ecological information, reporting and monitoring."

In accordance with the above guidance, EPR takes the following step-wise approach to EcIA:

- Prediction of the activities associated with a proposed scheme that are likely to generate biophysical changes which may lead to significant effects (either positive or negative) upon Important Ecological Features (IEFs);
- Identification of the likely Zone of Influence (ZoI) of those activities;
- Scoping to select the ecological features (habitats, species, ecosystems and their functions/processes) that are likely to fall within the predicted ZoIs and be affected by the activities;
- Evaluation of IEFs likely to be affected – both negatively and positively;
- Identification of likely impacts (positive and negative) on IEFs, together with an assessment of the geographic level at which effects are likely to be significant;
- Application of the mitigation hierarchy - refinement of the proposed scheme to incorporate impact avoidance and/or mitigation measures for negative effects on IEFs, and enhancements in order to deliver net gains;
- Assessment of the significance of residual effects and identification of any policy drivers for additional mitigation or compensation in the event of residual significant negative effects; and
- Advice on conformance with policy and legislation.

Ecological Evaluation Method

The evaluation method used in this EcIA uses the following geographic scale of importance for ecological features:

- International/European;
- National;
- Regional;
- County (or Metropolitan or Local Authority-wide area);
- Local; and
- Within the Zone of Influence.

With this in mind, features taken forward for detailed impact assessment are those which:

- Are evaluated as being of at least 'Local' ecological importance, or have the potential to be so; and
- Are likely to be affected, positively or negatively, by the proposals.

Ecological features deemed to be of less than 'Local' importance are considered throughout the EcIA process in the context of the national planning policy requirement for 'Biodiversity Net Gain'. The implications for those features that are protected by legislation are also discussed separately at the end of the EcIA report.

Ecological Importance is judged with reference to the following factors:

- Statutory requirements and policy objectives (e.g. site designations or the country lists of habitats and species of principle importance for the conservation of biodiversity); and
- Biodiversity value (e.g. diversity, rarity, scarcity, function within ecosystem, population trends).

Impact Assessment Method

The ecological features selected to be included in the assessment are those which both meet the importance threshold and are likely to be affected by the proposed scheme.

The first stage of the assessment is to determine the potential impacts upon each important ecological feature, with reference to the likely biophysical changes arising from the proposals. Impacts can be characterised according to their extent, magnitude, duration, timing, frequency, reversibility, and whether they are positive or negative.

The likelihood of cumulative impacts with other planned or consented projects is also taken into account at this stage.

An assessment is then made of whether the effect(s) of an impact upon an important ecological feature is likely to be considered 'significant' in EcIA terms.

Significant Effects

The EcIA Guidelines state that:

"Significance is a concept related to the weight that should be attached to effects when decisions are made. For the purpose of EcIA, 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general……in broad terms, significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution)." [our emphasis]

Put simply, an effect is considered significant if it is likely to change the structure and function of defined sites and ecosystems or the conservation status of habitats and species.

Professional judgement about significance is informed by conservation objectives for the affected feature, where available (for example conservation objectives set by Natural England for European

designated sites, or in habitat and species action plans). The ‘conservation status’ (habitats and species) or the degree to which a feature is exhibiting ‘integrity’ in terms of structure, function and condition (defined sites or ecosystems) is also considered. The predicted effect of natural and man-made trends in the absence of development is also taken into account in determining the conservation status or integrity of a feature and in considering whether otherwise insignificant effects may contribute to a significant cumulative effect.

The CIEEM Guidelines state:

“The evaluation of significant effects should always be based on the best available scientific evidence. If sufficient information is not available further survey or additional research may be required. In cases of reasonable doubt, where it is not possible to robustly justify a conclusion of no significant effect, a significant effect should be assumed. Where uncertainty exists, it must be acknowledged in the EcIA.”

Opportunities for Biodiversity Net Gain

EPR will advise the applicant’s team about how a scheme may be refined, in accordance with the mitigation hierarchy, to achieve net gains in biodiversity. Once the biodiversity measures are agreed, EPR will assess any residual effects and advise on the degree of compliance with national and local policy and nature conservation legislation. This process may evolve with the design of the development. In some instances, it may not be possible to avoid all the significant adverse effects or to deliver biodiversity net gain within the development site. In that case, EPR will advise of any opportunities to contribute to wider (offsite) biodiversity strategies which would deliver the appropriate mitigation, compensation and/or enhancement.

The final agreed measures will be set out clearly, so that the LPA can readily understand what planning conditions or legal agreements are required to achieve the necessary level of policy and legal compliance.

ECOLOGICAL APPRAISAL

The ecological appraisal was completed in order to inform the masterplanning process and establish the appropriate scope of an Ecological Impact Assessment (EcIA) in accordance with the Chartered Institute of Ecology and Environmental Management’s (CIEEM) Guidelines for the Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. (2018). CIEEM’s 2017 Guidelines for Preliminary Ecological Appraisal were also taken into account.

Desk Study Methodology

A desk study was carried out in order to gather and refer to existing biodiversity and contextual information with respect to the Zone of Influence and the wider area. This involved interrogation of internet resources, including the Multi-agency Geographic Information for the Countryside (MAGIC) aerial photos, current Ordnance Survey maps and historical maps. Reference was also made to local planning policies, strategies and initiatives relating to biodiversity.

A request was made to Surrey Biodiversity Information Centre (SBIC for any existing biological records in their database. The local records search and other desktop research was over a 2km radius for

nationally and locally important features and a 5km radius for European Protected Species and sites of European significance.

Fieldwork Methodology

The field survey was completed by Claire Clarke and Andrew Cross. The main development Site and the wider Fish Ponds SNCI and immediately surrounding land was walked, recording habitats and features of potential value to wildlife and any evidence of, or potential for, protected or notable species or habitats, in accordance with the methods described below.

Land Use, Habitat Types, Vegetation Communities and Flora

Within the study area the land use, habitat types and landscape features (such as hedgerows and veteran trees) were described and mapped. For each main habitat type the dominant vegetation communities were recorded, along with any notable or indicator plant species, (including invasive species such as Japanese Knotweed where present). A preliminary evaluation of the structure, quality and likely management of each habitat or feature was also carried out.

The survey method used to record this information was based on the UK Habitat Classification System (UK Hab, 2020). Botanical nomenclature in this report follows Stace (2019).

Fauna

The potential for habitats and features to support protected or notable species, or species of principal importance for the purpose of conserving biodiversity, were recorded, as were any signs encountered. The following is a summary of the approach taken for this Ecological Appraisal.

Badgers
Consideration was given to the presence of habitat potentially suitable for supporting Badgers, including woodland and grassland. Potential evidence of the presence of Badgers was looked out for and noted, including earthworks that might be Badger setts, and signs such as dung pits, mammal pathways through ground vegetation and under fences, and hairs on fences.

Bats
Bats use buildings and trees for roosting and breeding and, where present, a preliminary assessment of the potential for these features to support bats was undertaken during the survey. Potential may include gaps beneath roof or hanging tiles, in soffits, or beneath the end of ridge tiles, but also under the edge of felt on flat roofs. In trees potential roosting features include woodpecker holes, splits in branches and peeling bark.

Preliminary evidence was obtained through noting any staining around potential roost entrances, and looking for bat droppings, for example on window sills. A preliminary evaluation was also undertaken of potential bat foraging habitat in the area, including woodland, pasture, hedges and watercourses.

The survey included an appraisal of the habitats for their suitability and likely value to foraging and commuting bats. A Ground Level Tree Inspection was also carried out to assess the suitability of trees within the development footprint for roosting bats.

Dormouse
The type and quality of habitat with the potential to be suitable for supporting Dormice, such as woodland and hedgerows, was considered during the survey. In particular the presence of Oak, Hazel and berry-bearing shrubs was noted, and the connectivity of habitat recorded.

Water Voles
The presence and quality of watercourses with the potential to support Water Voles was recorded during the survey. Potential evidence of Water Voles, including burrows in the tops and vertical face of riverbanks, and feeding evidence was recorded where appropriate.

European Otter
Where watercourses are present, a preliminary evaluation of the quality of the riparian habitat for potentially supporting Otters was made. A preliminary search was made for signs of Otters, including spraints which are often left in prominent places on river banks, such as logs and bare patches of ground.

Birds
Any birds seen whilst carrying out the survey were recorded, and the type and quality of habitats available for birds was considered, including vegetation suitable for nesting, and habitat with the potential to support valued species, including breeding and wintering birds.

Amphibians
Consideration was given to the presence of habitat potentially suitable for supporting amphibians, including water bodies (ponds, ditches), woodland, scrub and rough grassland, and features such as log piles that might provide hibernation areas. Where appropriate, effort to gather direct evidence of amphibians was undertaken by making a preliminary search for eggs by examining vegetation within reach of the margins of water bodies, and for resting animals on land by looking under potential refuges, such as stones, wood and rubbish near to water bodies.

Reptiles
The presence and quality of habitat considered potentially suitable for supporting reptiles was recorded. This included areas providing basking and foraging areas, hibernation and breeding sites, such as rough grassland and scrub, banks, burrows, rubble piles, compost heaps, hedgebanks and water bodies.

Invertebrates
Readily identifiable invertebrates seen during the survey were recorded, and habitats and features likely to support noteworthy groups and species were noted, for example herb-rich grasslands, areas of bare ground and deadwood habitats, including woodland and veteran trees.

Appendix 4

Plant Species List

Key to Table A1 below

Legal: Species listed on Schedules 8 or 9 of the Wildlife & Countryside Act 1981 as amended

VPRLE: Species listed on the Vascular Plant Red List for England (VPRLE) with a status of Near Threatened or above. VU – Vulnerable; NT – Near Threatened

SNCI: Species listed on the Surrey SNCI Selection Criteria for Grasslands

AGI: Species listed as Acid Grassland Indicator species (AGI) in the English Nature Research Report ENRR 259

Comment: selected comments on plants with a conservation status

Table A1: Vascular plant and moss species recorded from the Survey Area (SNCI and Driving Range)

Species		Legal		VPRLE	SNCI	AGI	Comment
		S8	S9				
Trees and tall shrubs							
Betula pubescens	Downy Birch						
Crataegus monogyna	Hawthorn						
Fagus sylvatica	Beech						
Populus tremula	Aspen						
Prunus laurocerasus	Cherry Laurel						
Quercus robur							
Rhododendron 'ponticum'	Rhododendron		1				
Salix cinerea oleifolia	Sallow						
Sambucus nigra	Elder						
Sorbus aucuparia	Rowan						
Climbers (woody)							
Lonicera periclymenum	Honeysuckle						
Shrubs							
Cytisus scoparius	Broom						
Ulex europaeus	Gorse						
Grasses							
Agrostis capillaris	Common Bent						
Aira praecox	Early Hairgrass				1	1	
Anthoxanthum odoratum	Sweet Vernal Grass				1		
Arrhenatherum elatius	False Oat-grass						
Bamboo species	Bamboo						
Cynosurus cristatus	Crested Dog's-tail						

Species		Legal		VPRLE	SNCI	AGI	Comment
		S8	S9				
Dactylis glomerata	Cocksfoot						
Danthonia decumbens	Heath Grass				1		
Deschampsia flexuosa	Wavy Hairgrass						
Elytrigia repens	Common Couch						
Festuca rubra	Red Fescue						
Holcus lanatus	Meadow Soft-grass						
Holcus mollis	Creeping Soft-grass						
Lolium perenne	Perennial Rye-grass						
Molinia caerulea	Purple Moor grass						
Phleum bertolonii	Small Cat's-tail				1		
Phragmites australis	Common Reed						
Poa annua	Annual Meadow-grass						
Poa pratensis agg	Meadow-grass				1		
Poa trivialis	Rough-stalked Meadow-grass						
Vulpia bromoides	Squirrel Tailed Fescue						
Ferns and Horsetails							
Equisetum arvense	Field Horsetail						
Pteridium aquilinum	Bracken						
Other herbaceous species							
Alisma plantago-aquatica	Water Plantain				1		
Alliaria petiolata	Wild Garlic						
Anthriscus sylvestris	Cow Parsley						
Aphanes australis	Slender Parsley Piert				1	1	
Ballota nigra	Horehound						
Bellis perennis	Daisy						
Cardamine flexuosa	Wavy Bitter-cress						
Cardamine pratensis	Ladies Smock				1		
Carex binervis	Green-ribbed Sedge						
Carex echinata	Star Sedge			NT			
Carex leporina	Oval Sedge				1		
Carex pendula	Pendulous Sedge						
Carex pseudocyperus	Cyperus Sedge						
Carex remota	Remote Sedge						
Centaurea nigra	Black Knapweed						
Cerastium fontanum	Common Mouse-ear						

Species		Legal		VPRLE	SNCI	AGI	Comment
		S8	S9				
Cerastium glomeratum	Sticky Mouse-ear						
Cerastium semidecandrum	Little Mouse-ear				1	1	
Cirsium arvense	Creeping Thistle						
Cirsium palustre	Marsh Thistle						
Cirsium vulgare	Spear Thistle						
Conopodium majus	Pignut				1		
Crepis capillaris	Smooth Hawk's-beard						
Digitalis purpurea	Foxglove						
Eleocharis palustris	Common Spike-rush				1		
Filago germanica	Common Cudweed			NT		1	
Galium aparine	Cleavers						
Galium palustre	Common Marsh-bedstraw				1		
Galium saxatile	Heath Bedstraw				1		
Geranium dissectum	Cut-leaved Crane's-bill						
Hieracium sp.	Hawkweed species				1		
Hyacinthoides non-scripta	Bluebell	1					
Hydrocotyle vulgaris	Marsh Pennywort			NT	1		
Hypericum elodes	Marsh St John's wort			NT			
Hypochaeris radicata	Cat's-ear						
Impatiens glandulifera	Indian Balsam		1				
Impatiens parviflora	Small Balsam						
Iris pseudacorus	Yellow Flag						
Juncus acutiflorus	Sharp-flowered Rush				1		
Juncus bufonius	Toad Rush						
Juncus effusus	Soft Rush						
Lotus corniculatus	Bird's-foot Trefoil				1		
Lotus pedunculatus	Greater Bird's-foot Trefoil				1		
Luzula campestris	Field Woodrush						
Lycopus europaeus	Gypsywort						
Lysimachia vulgaris	Yellow Loosestrife				1		
Moenchia erecta	Upright Chickweed			VU	1	1	Scattered through mown parched acid grassland
Myosotis arvensis	Field Forget-me-not						
Myosotis c.f. ramosissima	Early Forget-me-not				1	1	
Ornithopus perpusillus	Birdsfoot				1	1	

Species		Legal		VPRLE	SNCI	AGI	Comment
		S8	S9				
Pilosella officinarum	Mouse-eared Hawkweed				1		
Plantago lanceolata	Ribwort Plantain						
Plantago major	Greater Plantain						
Potamogeton natans	Broad-leaved Pondweed						
Potentilla erecta	Tormentil			NT	1		
Prunella vulgaris	Selfheal						
Ranunculus repens	Creeping Buttercup						
Rubus fruticosus	Blackberry						
Rumex acetosa	Common Sorrel				1		
Rumex acetosella	Sheeps Sorrel				1		
Rumex hydrolapathum	Water Dock				1		
Sagina procumbens	Mossy Pearlwort						
Scorzoneroides autumnalis	Autumn Hawkbit						
Scrophularia nodosa	Figwort						
Senecio jacobaea	Ragwort						
Solanum dulcamara	Bittersweet						
Stellaria graminea	Lesser Stitchwort				1		
Stellaria holostea	Greater Stitchwort						
Taraxacum sp.	Dandelion						
Teucrium scorodonia	Wood Sage						
Trifolium dubium	Lesser Trefoil						
Trifolium micranthum	Slender Trefoil				1		
Trifolium ornithopodioides	Bird's-foot clover				1	1	
Trifolium repens	White Clover						
Typha latifolia	Bulrush						
Veronica arvensis	Wall Speedwell						
Veronica chamaedrys	Germander Speedwell						
Veronica serpyllifolia	Thyme-leaved Speedwell						
Vicia sativa nigra	Narrow Leaved Common Vetch						
Viola riviniana	Common Dog-violet						
Mosses							
Brachythecium albicans							
Calliergonella cuspidata							
Hypnum lacunosum						1	
Polytrichum juniperinum							

Species		Legal		VPRLE	SNCI	AGI	Comment
		S8	S9				
Pseudoscleropodium purum							
Rhytidiadelphus squarrosus							
Total No. of Species		**1**	**2**	**6**	**31**	**9**	

Appendix 5

Great Crested Newt HSI Assessment & eDNA Results

Great Crested Newt Survey — 1. Pond Details

Project	**Wentworth Pond 1**
Project number/reference	2336
Site	

Pond number/reference	Pond 1
OS Grid reference	
Location details	West Pond
Access instructions	

Landowner name	
Address/email	
Telephone	

Habitat Suitability Index

			SI value
SI1. Map location	**A/B/C**	A	*1.00*
SI2. Surface area	**rectangle/ellipse/irregular**	ellipse	
	length (m)	112	
	width (m)	58	
	OR estimate (m^2) if irregular		
	area (m^2) =	*5099.36*	*0.29*
SI3. Dessication rate	**never/rarely/sometimes/frequentl**	never	*0.90*
SI4. Water quality	**good/moderate/poor/bad**	moderate	*0.67*
SI5. Shade	% of margin shaded 1m from bank	65	*0.90*
SI6. Waterfowl	**absent/minor/major**	major	*0.01*
SI7. Fish population	**absent/possible/minor/major**	possible	*0.67*
SI8. Pond density	number of ponds within 1km	6	*0.67*
SI9. Terrestrial habitat	**good/moderate/poor/isolated**	good	*1.00*
SI10. Macrophyte cover	%	5	*0.36*

***Note** : Guidance in undertaking the HSI is available at www.nerc.ac.uk.*
HSI calculation formulae adapted from Rob Oldham

HSI score = **0.45**

Pond suitability = **poor**

General description/notes/comments

Survey results summary

Number of survey visits: 0

***Note** : The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to accurately population size class.*

***Note** : Only bottle-trapping and torch survey are considered suitable methods for accurate population size class.*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = n/a

Peak count = 0

Pond **population size class =** n/a

Great Crested Newt Survey — 1. Pond Details

Project	**Wentworth Golf Club**
Project number/reference	2336
Site	

Pond number/reference	Pond 2
OS Grid reference	
Location details	East Pond
Access instructions	

Landowner name	
Address/email	
Telephone	

Habitat Suitability Index

			SI value
SI1. Map location	**A/B/C**	A	*1.00*
SI2. Surface area	**rectangle/ellipse/irregular**	ellipse	
	length (m)	119	
	width (m)	42	
	OR estimate (m^2) if irregular		
	area (m^2) =	*392343*	*0.48*
SI3. Dessication rate	**never/rarely/sometimes/frequentl**	never	*0.90*
SI4. Water quality	**good/moderate/poor/bad**	moderate	*0.67*
SI5. Shade	% of margin shaded 1m from bank	70	*0.80*
SI6. Waterfowl	**absent/minor/major**	major	*0.01*
SI7. Fish population	**absent/possible/minor/major**	possible	*0.67*
SI8. Pond density	number of ponds within 1km	6	*0.67*
SI9. Terrestrial habitat	**good/moderate/poor/isolated**	good	*1.00*
SI10. Macrophyte cover	%	5	*0.36*

***Note** : Guidance in undertaking the HSI is available at www.nerc.ac.uk.*
HSI calculation formulae adapted from Rob Oldham

HSI score = **0.46**

Pond suitability = **poor**

General description/notes/comments

Survey results summary

Number of survey visits: 0

***Note** : The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to accurately population size class.*

***Note** : Only bottle-trapping and torch survey are considered suitable methods for accurate population size class.*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = n/a

Peak count = 0

Pond **population size class =** n/a

SureScreen Scientifics

Folio No: E17983
Report No: 1
Purchase Order: 2336A
Client: EPR
Contact: *** INFO (ALWAYS SEND HERE TOO PLEASE) ***

TECHNICAL REPORT

ANALYSIS OF ENVIRONMENTAL DNA IN POND WATER FOR THE DETECTION OF GREAT CRESTED NEWTS (TRITURUS CRISTATUS)

SUMMARY

When great crested newts (GCN), *Triturus cristatus*, inhabit a pond, they continuously release small amounts of their DNA into the environment. By collecting and analysing water samples, we can detect these small traces of environmental DNA (eDNA) to confirm GCN habitation or establish GCN absence.

RESULTS

Date sample received at Laboratory: 13/06/2023
Date Reported: 21/06/2023
Matters Affecting Results: None

Lab Sample No.	Site Name	O/S Reference	SIC	DC	IC	Result	Positive Replicates
2870	Wentworth Golf Club - Pond 1	SU 9777 6700	Pass	Pass	Pass	Negative	0
2871	Wentworth Golf Club - Pond 2	SU 9767 8901	Pass	Pass	Pass	Negative	0

If you have any questions regarding results, please contact us: [redacted]

Reported by: [redacted] **Approved by:** [redacted]

METHODOLOGY

The samples detailed above have been analysed for the presence of GCN eDNA following the protocol stated in DEFRA WC1067 'Analytical and methodological development for improved surveillance of the Great Crested Newt, Appendix 5.' (Biggs et al. 2014). Each of the 6 sub-sample tubes are first centrifuged and pooled together into a single sample which then undergoes DNA extraction. The extracted sample is then analysed using real time PCR (qPCR), which uses species-specific molecular markers to amplify GCN DNA within a sample. These markers are unique to GCN DNA, meaning that there should be no detection of closely related species.

If GCN DNA is present, the DNA is amplified up to a detectable level, resulting in positive species detection. If GCN DNA is not present then amplification does not occur, and a negative result is recorded.

Analysis of eDNA requires scrupulous attention to detail to prevent risk of contamination. True positive controls, negative controls and spiked synthetic DNA are included in every analysis and these have to be correct before any result is declared and reported. Stages of the DNA analysis are also conducted in different buildings at our premises for added security.

SureScreen Scientifics Ltd is ISO9001 accredited and participate in Natural England's proficiency testing scheme for GCN eDNA testing. We also carry out regular inter-laboratory checks on accuracy of results as part of our quality control procedures.

INTERPRETATION OF RESULTS

SIC: **Sample Integrity Check** [Pass/Fail]
When samples are received in the laboratory, they are inspected for any tube leakage, suitability of sample (not too much mud or weed etc.) and absence of any factors that could potentially lead to inconclusive results.

DC: **Degradation Check** [Pass/Fail]
Analysis of the spiked DNA marker to see if there has been degradation of the kit or sample between the date it was made to the date of analysis. Degradation of the spiked DNA marker may lead indicate a risk of false negative results.

IC: **Inhibition Check** [Pass/Fail]
The presence of inhibitors within a sample are assessed using a DNA marker. If inhibition is detected, samples are purified and re-analysed. Inhibitors cannot always be removed, if the inhibition check fails, the sample should be re-collected.

Result: **Presence of GCN eDNA** [Positive/Negative/Inconclusive]
Positive: GCN DNA was identified within the sample, indicative of GCN presence within the sampling location at the time the sample was taken or within the recent past at the sampling location.
Positive Replicates: Number of positive qPCR replicates out of a series of 12. If one or more of these are found to be positive the pond is declared positive for GCN presence. It may be assumed that small fractions of positive analyses suggest low level presence, but this cannot currently be used for population studies. In accordance with Natural England protocol, even a score of 1/12 is declared positive. 0/12 indicates negative GCN presence.
Negative: GCN eDNA was not detected or is below the threshold detection level and the test result should be considered as evidence of GCN absence, however, does not exclude the potential for GCN presence below the limit of detection.

Appendix 6

Biodiversity Net Gain Assessment

Appendix 6
Biodiversity Net Gain Assessment

Introduction

As set out at **Section 5** above, the Proposals have been designed to provide a biodiversity net gain, in line with local and national planning policies.

Under Policy EE9 of the Runnymede 2023 Local Plan, it states:

> *"The Council will seek net gains in biodiversity, through creation/expansion, restoration, enhancement and management of habitats and features to improve the status of priority habitats and species. Development proposals should demonstrate how this will be achieved and should be in accordance with any Supplementary Planning Document the Council prepares."*

To date, no Supplementary Planning Documents in relation to biodiversity net gain have been published by Runnymede Council.

Under Section 15, the NPPF requires that planning decisions should enhance the natural environment, minimise impacts and provide net gains for biodiversity.

Whilst neither the local plan nor the NPPF sets out a requirement to demonstrate measurable biodiversity net gain, when the future provisions of The Environment Act 2021 come into force, these will require a minimum of 10%. Ahead of this, and in consideration of the valuable habitats present in and around the Site, the Proposed Development has been designed to facilitate the delivery of at least a 10% biodiversity net gain as measured by the Biodiversity Metric 4.0 (Natural England, 2023).

Based on the new UK Habitat Classification System, the Biodiversity Metric 4.0 uses pre-defined habitat values to calculate a total value of a site, using 'Habitat Units'. The total of these units can be compared, pre and post development, to determine the biodiversity net gain (or loss) which can be delivered by a project. A habitats overall value is based on several factors, including habitat distinctiveness, habitat condition, connectivity and strategic significance. When creating habitats, additional factors such as time for habitats to mature, and difficulty in creation is also be taken into account.

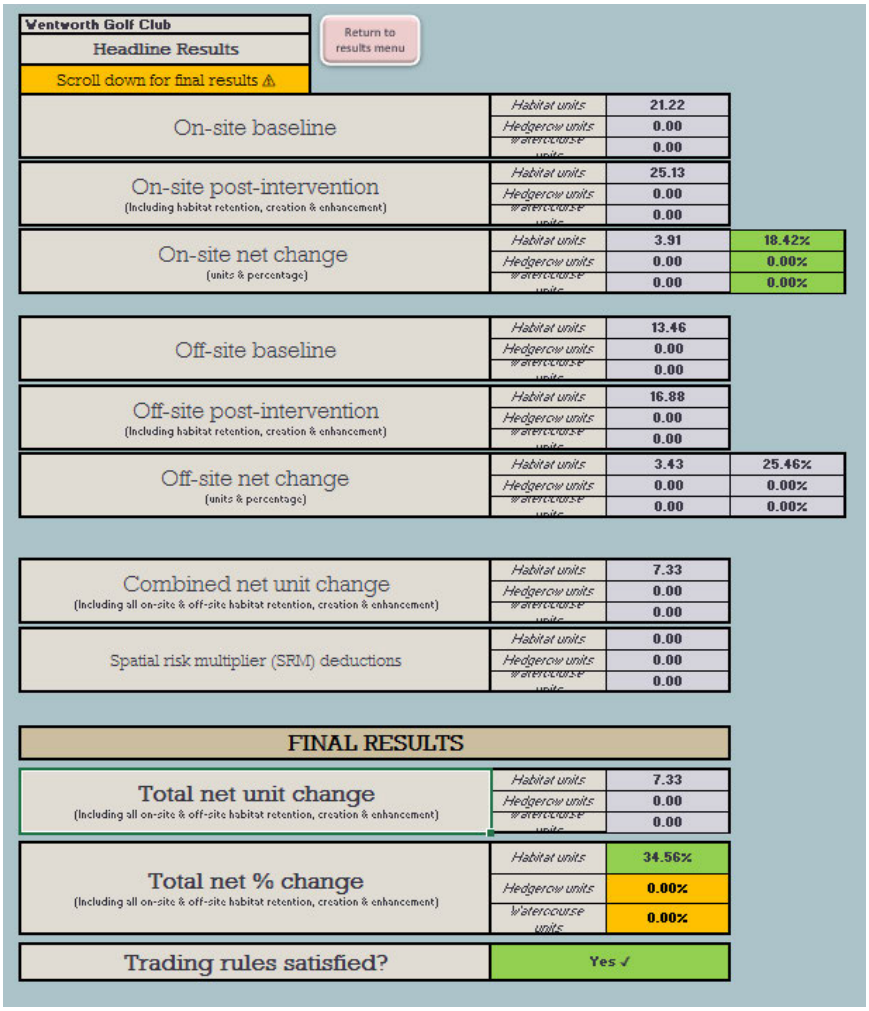
Condition Assessment

A condition assessment of the baseline habitats (as shown on **Map A.1**) was undertaken by EPR botanist Andrew Cross BSc (Hons) MSc MCIEEM on the 21 June 2023. The condition assessments were undertaken in line with the Condition Assessment Methodology as set out by Natural England in The Biodiversity Metric 4.0 – Technical Annex 1 – Condition Assessment Sheets and Methodology.

Biodiversity Metric Results

Overview

The headline metric results are extracted in **Figure 1** below.



Ventworth Golf Club

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Headline Results

Scroll down for final results ⚠

On-site baseline	Habitat units	21.22	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	25.13	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site net change (units & percentage)	Habitat units	3.91	18.42%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Off-site baseline	Habitat units	13.46	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	16.88	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	Habitat units	3.43	25.46%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	7.33	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	7.33
	Hedgerow units	0.00
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	34.56%
	Hedgerow units	0.00%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

Figure 1: BNG metric headline results

On-site Gain

Based on the current habitats (as shown on **Map A.1**) and conditions, the Site achieves a baseline value of **21.22 habitat units**.

The post-development habitats, informed by the Landscape Proposals, have been based on the habitats shown on **Map A.2**. The conditions of the post development habitats have been based on the following assumptions:

- Areas of the Site to be retained (including their condition) will not be negatively impacted by construction works, as managed by a CEMP;
- The retained Lowland Mixed Deciduous Woodland and other broadleaved woodlands can both be managed to achieve a moderate condition;

- Loss of Standing Open Water will be offset through the loss of Mixed Scrub habitat followed by the creation of Standing Open Water managed to achieve good condition;
- An Other Green Roof will be delivered;
- New ecologically valuable habitats will be delivered, to include Lowland Mixed Deciduous Woodland (in poor condition), other broadleaved woodland (in moderate condition) and other lowland acid grassland (in moderate condition); and
- A nature conservation-led management plan will be created and implemented to aid in achieving created and enhanced habitat conditions as set out in the metric.

Following the Proposed Development, the Site achieves **25.13 habitat units**, a net unit change of 3.91 units, equivalent to a net gain of **+18.42%**. Whilst the Proposals provide more than a 10% biodiversity net gain on-site, the metric identifies a failure to comply with the trading rules regarding Priority habitats. Further off-site gains are therefore proposed to address this, as described below.

Off-Site Gain

In order to provide further gains to Priority habitats, enhancement of the Priority ponds and Lowland Mixed Deciduous Woodland located outside of the Site but within the adjoining area of Wentworth Fish Ponds SNCI that is within the ownership of the applicant, is proposed. The habitat areas proposed for enhancement are shown on **Map A.2**.

Prior to intervention, the off-site enhancement areas achieve a baseline value of **13.46 habitat units**.

Following enhancement measures, this will increase to 16.88 habitat units - a **net change of 3.43 units**. This is based on the following assumptions:

- The existing ponds can be enhanced to improve their condition from poor to moderate, and moderate to good;
- The exiting Lowland Mixed Deciduous Woodland can be enhanced to improve its condition to from poor to moderate; and
- A nature conservation-led management plan will be created and implemented to aid in achieving created and enhanced habitat conditions as set out in the metric.

Summary of Net Gain

When on-site and off-site interventions are taken into account the Proposals result in a total biodiversity net unit change of 7.33 habitat units, equivalent to a **total biodiversity net gain of +34.56%** (which satisfies the trading rules regarding the loss of Priority habitats, including all on-site and off-site habitat retention, creation and enhancement).

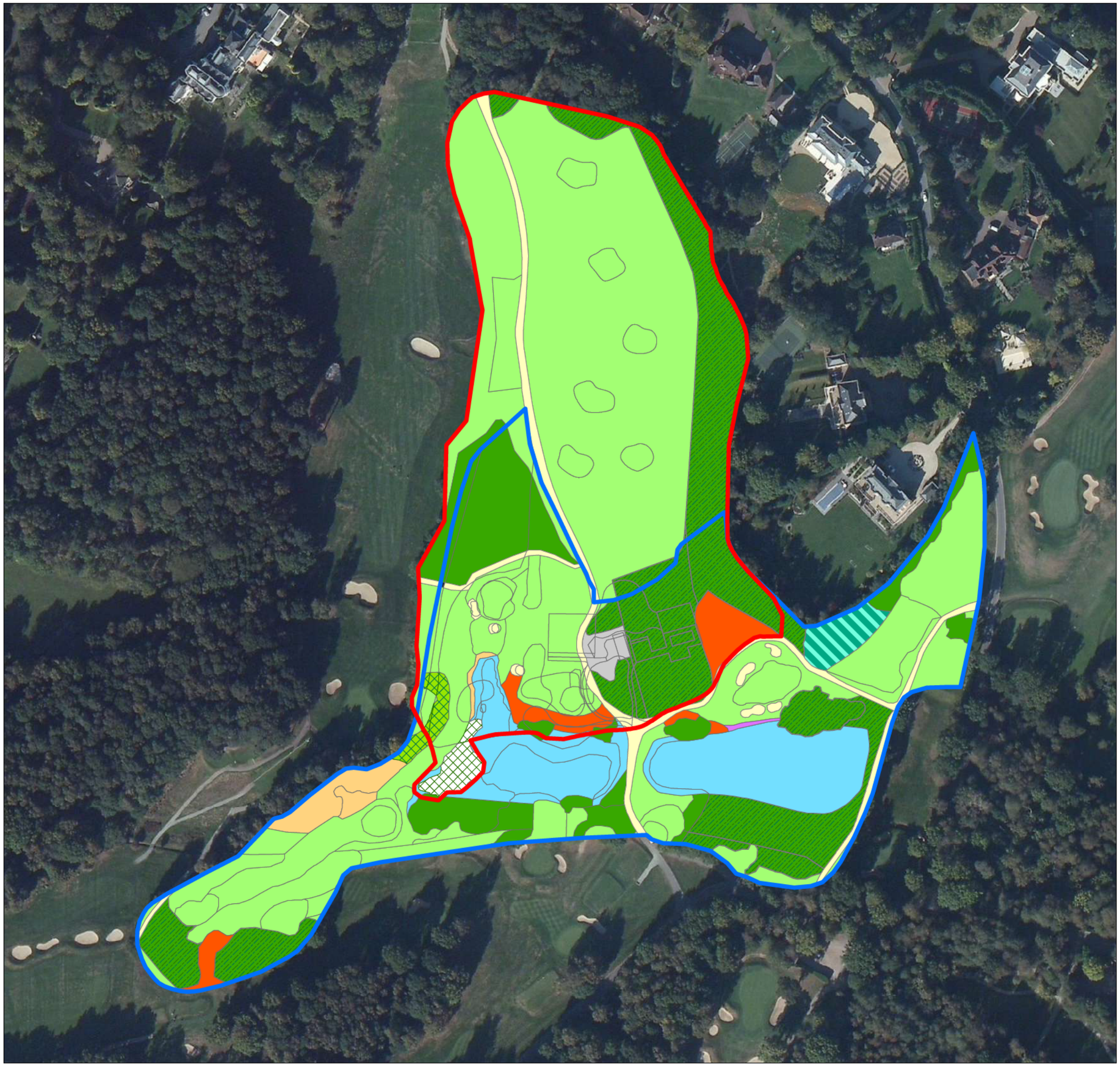
Limitations of the Biodiversity Metric

As habitats are used ‘as a proxy to describe biodiversity’ the Biodiversity Metric alone cannot be considered to provide a full picture of the deliverable biodiversity enhancements available.

The Metric does not take into account species information, and therefore habitats which support protected and/or notable species will not be given extra weight or consideration. Similarly, additional

enhancement measures which may be targeted at faunal species (e.g. wildlife boxes) will not be taken into account whilst calculating biodiversity net gain.

The Biodiversity Metric 4.0 can therefore be considered to be a quantitative measure of biodiversity net gain, with additional enhancements a qualitative measure of net gain opportunities to be considered additionally.



MAP A.1 Baseline BNG Habitats

KEY

- Site boundary (Onsite BNG)
- Site of Importance for Nature Conservation (SNCI) selection
- Artificial unvegetated, unsealed surface
- Developed land; sealed surface
- Modified grassland
- Other lowland acid grassland
- Other neutral grassland
- Purple moor grass and rush pastures
- Ponds (Priority Habitat)
- Gorse scrub
- Mixed scrub
- Other woodland; broadleaved
- Lowland mixed deciduous woodland
- Wet woodland

SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres

N

EPR

CLIENT: Wentworth Club Ltd

PROJECT: Wentworth Club

DATE: 25 August 2023

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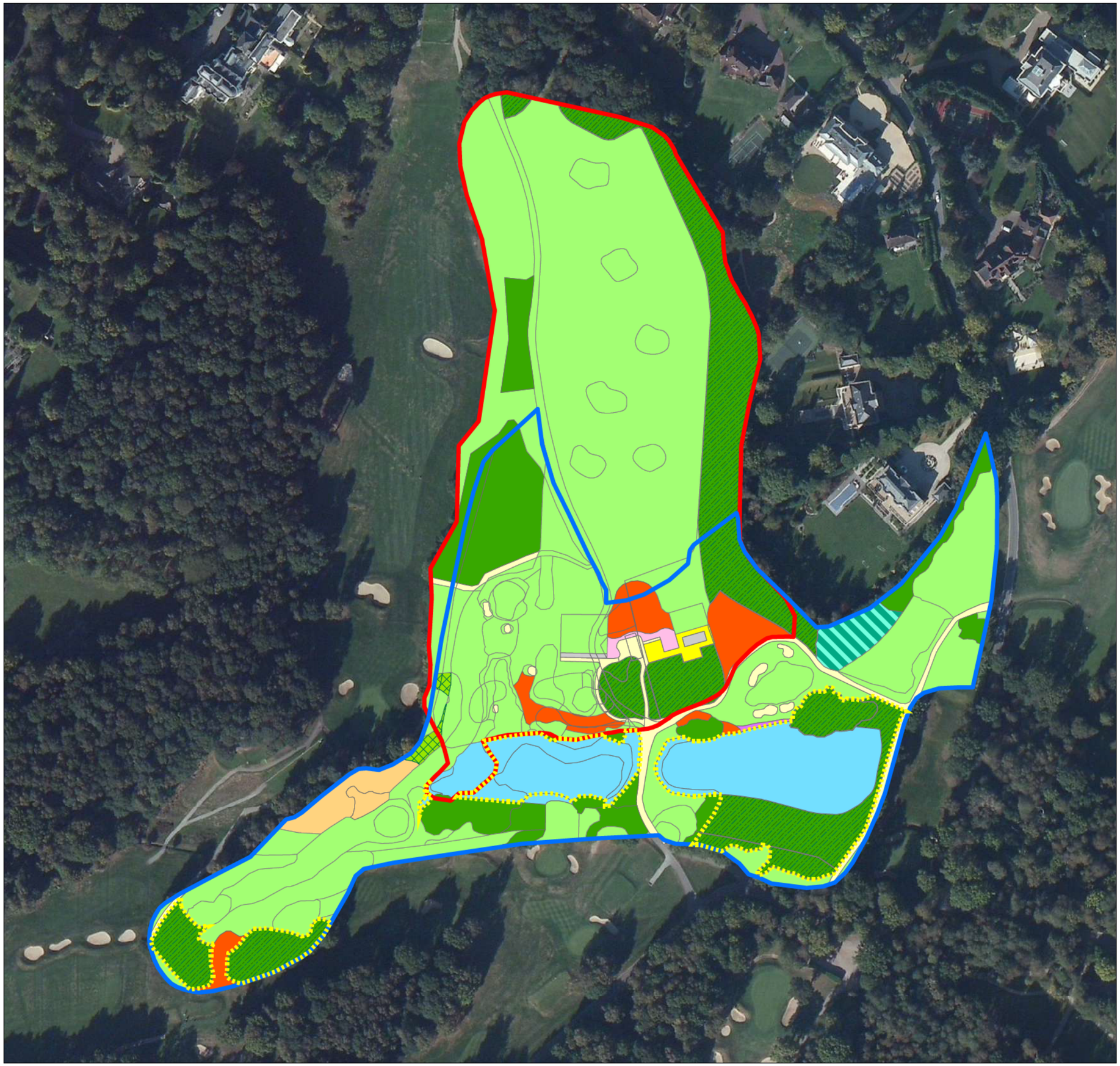

MAP A.2 Post Development BNG Habitats

KEY

- Site boundary (Onsite BNG)
- Site of Importance for Nature Conservation (SNCI) selection
- Offsite habitat enhancement
- Artificial unvegetated, unsealed
- Developed land, sealed surface
- Extensive green roof
- Shrubs
- Modified grassland
- Other lowland acid grassland
- Other neutral grassland
- Purple moor grass and rush pasture
- Ponds (Priority Habitat)
- Gorse scrub
- Other woodland; broadleaved
- Lowland mixed deciduous woodland
- Wet woodland

SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres

N

EPR

CLIENT: Wentworth Club Ltd

PROJECT: Wentworth Club

DATE: 25 August 2023

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