



**Ecological Impact
Assessment**

Report for:

***Hampshire County Council –
Property Services***

**Tavistock Infants School
Extension**

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Executive Summary

An Ecological Impact Assessment (EclA) was carried out for the Tavistock Infants School extension project. This was informed by a desk study and site survey work. The EclA was carried out using a desk study and site surveys, examining the potential for a range of habitats and species to be present and affected by the development. Where potential ecological receptors were identified, an assessment was made of the impacts to these from the development. Where impacts were identified, the EclA determines the scale, nature and permanence of these impacts as well as measures to be put in place to avoid the impacts where possible. Where impacts cannot be avoided, measures are set out that would mitigate (lessen) the impacts, and where residual impacts remain after mitigation, compensation measures are set out.

The development will affect areas of rough grassland, amenity grassland, scrub and woodland as well as existing buildings. The amenity grassland and buildings are of limited ecological value. The rough grassland and scrub has some value at site level, and although there will be moderate impacts to this in the short term, the impacts are only temporary and overall there would be no permanent adverse impacts. The woodland will be adversely affected through the construction of the site compound and access route. There will be a small permanent loss of woodland through the extension of Tavistock School. There will be a temporary moderate adverse impact to the main block of woodland – however measures will be in place to avoid these where possible through careful routing of the access route. Upon completion, the woodland will be managed as a resource for the schools, maintaining areas of open woodland rides and glades and the work will reduce the level of rhododendron cover, benefiting the woodland habitat. Overall, it is considered that there would be no permanent adverse effect on the woodland, with the small area of permanent loss being compensated for by the benefits arising from rhododendron clearance and enhanced woodland management.

The affected buildings were assessed as having negligible potential to support bats. No trees that have the potential to support bat roosts will be felled or pruned. The pond within the school grounds has been assessed as being unlikely to support great crested newts. The woodland has been assessed as being unlikely to support dormice. The work does however have the potential to affect nesting birds and reptiles, both of which are legally protected. A scheme is set out in the EclA that would ensure that the necessary vegetation clearance is carried out in a suitable manner with respect to setting out, timing and ecological supervision, to avoid impacts.

The EclA also includes a scheme of measures to recreate and enhance habitat for nesting birds, reptiles, bats and invertebrates.

Overall it is considered that the scheme would have a short term minor adverse impact on biodiversity during the construction phase, but upon completion of the work, the project will have a minor beneficial effect on biodiversity.

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1 Introduction

- 1.1 This Ecological Impact Assessment (EclA) has been produced for Hampshire County Council Property Services to support a planning application for extension works at Tavistock Infants School in Fleet, Hampshire.
- 1.2 The EclA examines the potential impacts of the project at site level and within the wider ecological context.
- 1.3 Desk study, site visit, assessment and report writing was carried out by Adam Eggesfield, who has ten years experience working in the ecology sector for a variety of organisations in both the public and commercial sector carrying out ecological surveys and assessments, and has held a great crested newt survey licence and undertaken work under badger, great crested newt and water vole licences.
- 1.4 Briefly, the assessment comprised an initial desk based assessment followed by a site survey and subsequent analysis and reporting. Fuller details of the methods used follow in the appropriate sections of this report.

The brief

- 1.5 The site is currently an existing school build largely in the 1970s with some smaller more modern extensions and temporary buildings. The grounds comprise large areas of amenity grassland, a small orchard, a small pond set in a corner of the site surrounded by rough grassland and scrub. There are large areas of hardstanding and compacted earth / worn grass play areas. There are a number of large mature oak trees within the site. To the south of the school buildings and within the site is a large block of woodland. Beyond this is a separate school – All Saints Junior. .
- 1.6 The site is bounded by mature hedge / scrub lines and mature trees, with residential development beyond to the east and open countryside to the west. There are footpaths and roads running adjacent to the school. Appendix 1 shows the site and its wider surroundings.
- 1.7 Development proposals will extend Tavistock School to the south, replacing the existing temporary nursery building. The construction will take several phases. A new temporary classroom will be installed to the northeast of the site, followed by creation of a site compound and main site access from the east. Upon completion, the temporary classroom will be removed. The site compound will then be reinstated as woodland, which will in part be used as the basis for developing the area as an outdoor learning area and enabling a more effective woodland management regime so it can be used as a resource for the school.

2 Methodology

Desk assessment

- 2.1 Upon receipt of the brief from the architects, a desk based assessment was carried out during the feasibility study stage in February 2012. The following sources of information were used:
- Ordnance Survey maps and aerial photographs (via Google and Bing) to identify key features such as waterbodies, rivers, hedges, woodland etc;
 - Hampshire Biodiversity Information Centre (HBIC) data to identify the location of any statutory or non-statutory sites of nature conservation importance, to identify if any notable or legally protected species of plants and animals have been previously formally recorded in the area, and identify the presence and extent of any mapped key habitats.
- 2.2 Given the scale and nature of the development, an initial view of the site was taken with a 1km buffer around it to identify any major ecological receptors within this wider area. As the initial desk assessment progressed, this wider area of study was refined to establish the most appropriate study area.

Site survey

- 2.3 Following the initial feasibility study and desk assessment, further site visits were carried in February 2012 and October / November 2012
- 2.4 The weather at the time of the surveys was cool, with light rain on the 19th October, and cool and sunny on the 5th November.
- 2.5 The February 2012 site visit concentrated on the northeast corner of the site around the pond. Subsequent visits, as design of the scheme progressed, took in the remainder of the site. The visits comprised a walkover of the site to establish the habitats present. These were mapped according to the Phase 1 habitat mapping method¹.
- 2.6 A full botanical survey was not undertaken, nor were any detailed surveys for particular species of animal. However, habitats and features were assessed for their potential to support a range of notable and legally protected species, including:
- Great crested newts
 - Bats
 - Dormice
 - Badgers
 - Reptiles
 - Breeding birds
 - Other small mammals
- 2.7 Results of the desk study and site survey are set out in **Section 3** of this report.

¹ JNCC (2003); *Handbook for Phase 1 habitat survey – a technique for environmental audit*

Assessment

- 2.8 Once data from the desk assessment and site survey was collected, the results were analysed and an assessment was made of the impacts to any identified ecological receptors was carried out. The findings of this are set out in **Section 4** of this report. This assessment considered:
- the nature of the impacts (including pathways)
 - timescales (i.e. impacts in the short, medium and long term),
 - potential impacts specific to different phases of the work (construction and operational) and
 - the significance of any identified impacts.
- 2.9 Following this, measures to counteract any identified adverse impacts are identified.
- 2.10 **Section 5** sets out the conclusions of the study.
- 2.11 In this report, the 'study area' refers to the wider context that the school is set in, largely considered during the desk assessment and subsequent analysis, while the 'survey area' refers to the school site itself and immediate area affected by the works, and any other areas covered during the site walkover.

3 Results

Sites

Internationally important sites

- 3.1 Special Areas for Conservation (SACs), Special Protection Areas (SPAs) and wetlands designated under the Ramsar Convention as being of international importance for nature conservation are legally protected by the Conservation of Habitats and Species Regulations 2010 (as amended). These transpose the EU Habitats and Birds Directives into domestic law.
- 3.2 There are no Special Protection Areas (SPAs), Special Areas of Conservation (SACs) or Ramsar sites within 1km of the study location.

Nationally important sites

- 3.3 There are over 4,100 Sites of Special Scientific Interest (SSSIs) in England, covering around 8% of the country's land area. These sites represent country's very best wildlife and geological sites, and are legally protected under domestic law via the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way (CROW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006).
- 3.4 The *Basingstoke Canal Site of Special Scientific Interest* (SSSI), is approximately 500m to the east of the site. This is designated for its aquatic plants and invertebrates, supported by the quality and characteristics of the water. Some areas of associated adjoining habitats fall within the SSSI designation, including woodlands and heaths.

Locally designated sites

- 3.5 There are a two locally important Sites of Importance for Nature Conservation (SINCs) within 1km of the study area. These are *Jack Reid's Copse* (approx 450m to the west) and *Netherhouse Copse* (600m southwest). These sites are both designated for their ancient woodland habitats.

Habitats

- 3.6 The following sections describe the main habitats present within the survey area. Map 1 (below) shows a map of the habitats identified during the walkover.

Map 1 – Phase 1 Habitat Map



Key

-  Amenity grassland
-  Species-poor improved grassland
-  Woodland
-  Standing water
-  Watercourse
-  Tree
-  Scattered small trees
-  Building
-  Hardstanding
-  Target Note

Woodland

- 3.7 There is an area of woodland central to the site, approximately 0.5ha, between the Infants and Junior schools. This is predominantly semi-mature birch woodland, with some larger oak trees within it. There is dense rhododendron understorey with some holly, young cherry and ash, birch scrub and associated dense bramble.
- 3.8 There are some more open areas; these generally have bare ground and leaf litter, with the adjacent rhododendron and bramble forming the edges of these areas, along with species such as rosebay willowherb and bracken abundant (see Photos 1 and 2, below).



Photo 1 – Woodland (TN1)



Photo 2 – Woodland understory (TN1)

- 3.9 Examination of old maps indicates that this area was largely cleared to facilitate the construction of the schools in the 1970s and with the exception of the small number of mature oaks, the woodland is secondary growth within the last 50 years.

Orchard

- 3.10 There is a small orchard area (TN2), with relatively young fruit trees planted by the school. The trees are cultivated apple varieties within an area of amenity grassland.

Grassland

- 3.11 There are two main areas of grassland within the survey area. The majority is amenity grassland (TN3), which is close-mown, species-poor and used as playing fields and associated uses by the schools.
- 3.12 There is a small area of rougher improved grassland (TN4) to the north east of the site, fenced off from the main grassland area, around the pond. This is generally species-poor, dominated by common grass species such as ryegrass sp., Yorkshire fog and cocksfoot. It is occasionally mown. It appears to be contiguous with the adjacent areas of playing field (managed as amenity grassland), separated only by the fence and differing management regime.

Trees

- 3.13 There are a large number of mature oak trees around the site. From examining old maps, these appear to be in the locations of historic woodland management compartment boundaries.

Pond

- 3.14 There is a small pond, approximately 40m² to the north east corner of the site. This is understood from the school to have been constructed relatively recently (certainly during the life of the school) and is not a historic pond. It holds water for most, if not all the year for most years although is understood to have dried completely in 2011. It is well-fringed with marginal vegetation and has a pond-dipping platform (see Photo 3).

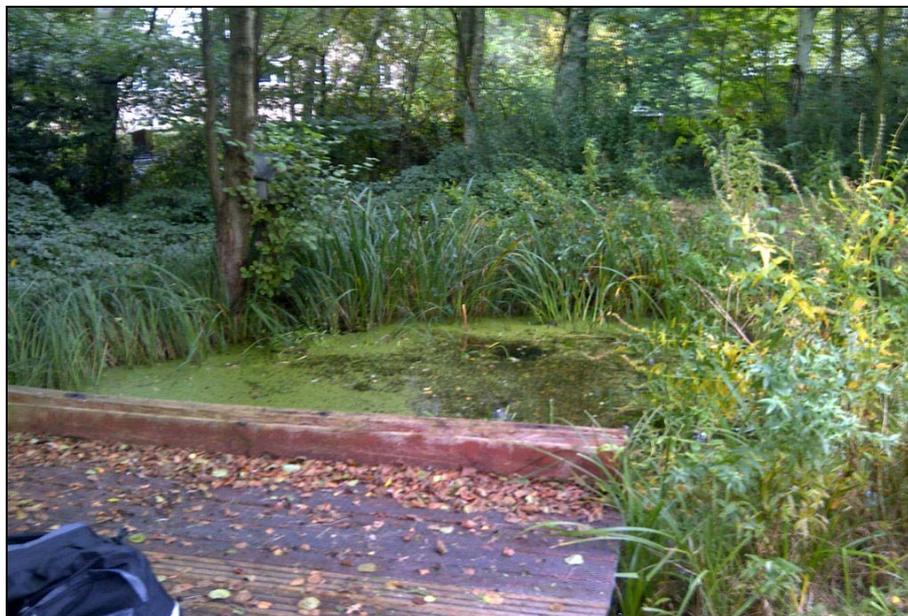


Photo 3 - Pond

Scrub

- 3.15 There is an area of moderately established scrub and young trees around the fenced-off pond area to the north east of the site, between the boundary trees.

Buildings

- 3.16 There are two schools within the survey area. Tavistock Infants School (TN5) is a 1970s single-storey flat-roofed building (see Photo 4). It has more modern plastic weatherboarding and bargeboards around the edge of the roof.



Photo 4 – Aerial photo of Tavistock School

Boundary features

- 3.17 The eastern boundary of the school is formed of a line of mature and semi-mature trees, largely birch, with occasional oak. There is some very limited and sparse understorey, chiefly bramble, holly and birch.

Hardstanding

- 3.18 There are extensive areas of hardstanding within the site, for play areas, car parking and general circulation.

Species

- 3.19 No species-specific species surveys were carried out at this time. However, consideration was given to the potential for the survey area and associated areas within the study area to support any legally protected or notable species of plant or animal.
- 3.20 Of the protected species that might be found in this area, the more widespread species of reptile (adder, slow worm, grass snake and common lizard), badgers and nesting birds are legally protected under domestic law². It is an offence to kill or injure reptiles and to damage / destroy badger setts and occupied birds nests (and to disturb the nests of certain species, or disturb a badger in its sett).
- 3.21 Bats, dormice and great crested newt (GCN) are legally protected under both UK and EU law³. It is an offence to kill, injure or disturb these animals, or to damage or destroy their breeding sites or resting places. The only legal way that these otherwise illegal acts can take place is if a licence to carry out the works is first obtained from the regulator, Natural England. They will only grant a licence for such operations where there is no satisfactory alternative, where there are imperative reasons of over-

² The Wildlife and Countryside Act 1981 (as amended).

³ The Conservation of Habitats and Species Regulations 2010 (as amended).

riding public interest or health and safety, and where measures will be implemented to maintain the conservation status of the affected species.

- 3.22 The following sections consider the likelihood of any protected species to be present at the site, regardless of the development proposals. **Section 4** of this report will consider these findings further in the context of the development proposals to identify the nature of any impacts – if any – to species and habitats likely to be present.

Bats

- 3.23 There are no historic records found during the desk study associated with the school site. Two records were returned from nearby areas – one pipistrelle roost in a residential dwelling some 600m away and a maternity roost of brown long-eared bats in a residential property within 300m of the site (although this record is 15 years old). In terms of general foraging habitat, the surrounding area is a mixture of open countryside (with fields, woodland and hedgerows), grass playing fields and parkland, and extensive mature residential settlement with mature trees and gardens. There is a small urban but vegetated watercourse corridor flowing north-south down the eastern edge of the site. Overall, the bat foraging resource surrounding the school site is fair to good.

Buildings

- 3.24 The Tavistock School buildings are modern flat-roofed structures with plastic bargeboards and weatherboarding around the elevations and edges of the roof. No gaps were seen around the building, and the plastic bargeboards and weatherboarding is not typically a suitable material to allow bats to enter concealed voids. Consequently it is considered that there is negligible roosting potential within the Tavistock School buildings themselves.

School Grounds

- 3.25 There are a large number of mature oak trees around the site, many of which have features such as cracks, splits, lifted bark etc that are considered suitable for supporting roosting bats. The younger birch trees present in the woodland and site boundaries in general do not exhibit such features. Specific checks of those affected by the clearance of the woodland did not reveal any trees with potential roosting features.
- 3.26 It is considered that as an overall assessment of the resource, the mature trees around the site present moderate to high bat roosting potential.
- 3.27 Habitat around the site – particularly the woodland and trees – is considered to present good bat foraging habitat.

Dormice

- 3.28 There are no dormouse records in the surrounding area, although it is believed that dormouse have recently recorded in areas of woodland near Hartley Wintney, approximately 5km to the west.
- 3.29 Dormice are typically associated with the dense hazel coppice understorey within areas of ancient woodland, as well as other areas of mature woodland with good understorey structure, mature species-rich hedges and areas of associated scrub. However they are increasingly being found in habitat often seen as less optimal, such

as less dense and species poor scrub, conifer plantations and coastal gorse heathlands.

- 3.30 The woodland central to the site would superficially appear to present good potential to support dormice as it has a dense understorey of rhododendron, bramble and similar scrub species – although species diversity is only moderate at best. However, the site overall has a recent history of clearance and disturbance. Although the woodland area appears to have been continuously wooded for a long time period, it is characteristic of fairly recent secondary woodland. The site was understood to have been largely cleared when the two linked schools were constructed in the 1970s, and the current predominantly birch and rhododendron woodland is characteristic of late seral stages found in this area on historic heathland and conifer plantation.
- 3.31 Examination of aerial photographs initially suggested that there is some linkage between the woodland on site and woodland / hedges in the surrounding area, and that there may be a reasonable expectation that if dormice are present in the wider countryside that they could re-colonise the on-site woodland. However, this vegetation cover is, in many areas, simply lines of mature boundary oak trees with limited understorey.
- 3.32 Consequently it is considered unlikely that the woodland on site supports dormice.

Great crested newts

- 3.33 Adult GCN breed in ponds between approximately March-mid-June. For the rest of the year, they use terrestrial habitat around their breeding ponds and can disperse several hundreds of metres across adjacent habitats. Additionally, juvenile GCN are not generally found in ponds and spend the first 2-3 years of their life on land and can be found further afield.
- 3.34 Thus an assessment for potential impacts on GCN would initially examine a zone of up to 500m around a potential development site for suitable breeding ponds, although in some circumstances, that zone can be reduced to 250m depending on local conditions. If there are no suitable breeding ponds within that area then it would be considered unlikely that they would be present on the site.
- 3.35 If there are ponds close to the area and with sufficient linkage, it would be necessary to consider the likelihood of newts being present on the site in greater detail, and the likelihood of them being affected. This would depend on the nature of the affected habitat and impacts to any foraging areas or dispersal routes. At present, examination of maps suggests that there are no waterbodies within 500m of the site other than the on-site pond.
- 3.36 A Habitat Suitability Index (HSI) assessment⁴ was carried out on the on-site pond to establish the likelihood of GCN being present.
- 3.37 The pond is small (only approximately 40m²). It is believed to be wet throughout the year for most years, although occasionally dries. It is moderately shaded by surrounding trees and scrub. It appears to have average water quality (based on general clarity and visual characteristics, although an invertebrate study was not undertaken. Waterfowl and fish are considered absent. There is fair macrophyte cover. It is the only pond in the area. Scores for these factors are as follows:

⁴ Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10(4), 143-155.

Index	Comment	Score
<i>Location</i>	Within Zone A	1
<i>Pond area</i>	Area is <50m ² therefore score 0.05	0.05
<i>Pond drying</i>	Dried in 2011, otherwise generally wet all year	1
<i>Water quality</i>	Considered moderate	0.67
<i>Shade</i>	Approximately 75% shaded	0.7
<i>Fowl</i>	None seen – considered absent	1
<i>Fish</i>	None seen – considered absent	1
<i>Ponds</i>	No other ponds within 500m	0.01
<i>Terrestrial habitat</i>	Approximately 60% of habitat within 250m is considered optimal – scrub, rough grass and woodland. Remainder is hardstanding, buildings, mown amenity grassland (heavy use by school)	0.67
<i>Macrophytes</i>	Fair cover	0.7
HSI		0.40

- 3.38 This HSI score of 0.4 corresponds to a suitability of 'Poor'. In studies, only 0.03% of ponds assessed as poor supported GCN. It is therefore considered unlikely that GCN are present at the site.

Reptiles

- 3.39 The widespread species of reptile (slow worm, common lizard, grass snake and adder) may be found in a range of habitat types – they are commonly associated with habitats such as rough grassland, heathland, ruderal vegetation and ditch / riparian vegetation.
- 3.40 Much of the vegetation on site is considered sub-optimal for reptiles as this consists of open close-mown amenity grassland, hard-standing or woodland. However there are some smaller areas of suitable reptile habitat present along the woodland edges and in some of the rough grassland around the pond.
- 3.41 A formal reptile survey has not been carried out, although given the area of suitable habitat on site it is not considered that anything more than a small population of common species would be present. The works will only affect a very small proportion of available reptile habitat, and these impacts will only be temporary.

Badger

- 3.42 There are no records held by HBIC of badgers in the vicinity. No signs of badger (e.g. setts, tracks, latrines, foraging holes) were seen on site during the survey.

Nesting birds

- 3.43 The woodland on site and some of the scrub has high potential to be used by nesting birds.

Other species

- 3.44 It is considered that the site does not contain habitats that would support otters, water voles, white-clawed crayfish, sand lizards or smooth snakes.

4 Discussion and analysis – Impact Assessment

- 4.1 The following sections consider the results of the desk study and site survey to identify the value of the features present on the site and affected by the development **in the absence of any counteracting measures** (i.e. avoidance, mitigation or compensation). Where ecological receptors are affected, the significance of these impacts are identified.
- 4.2 Measures to counteract any identified adverse impacts are set out in the next section.

Impact assessment

Sites

International and nationally designated sites

- 4.3 There are no internationally designated sites within 5km of the development. The nearest nationally designated site is approximately 0.6km away.

Given the nature and scale of the development, regardless of which option is pursued, the development is considered to have **no impact** any legally protected sites.

Local sites

- 4.4 The nearest SINC – designated for its Ancient Woodland habitat – is approximately 0.5km away. Ancient woodland is particularly vulnerable to processes that would result in direct loss of habitat within the site, as well as those that might contribute to significant changes in local hydrological regimes, air quality or increases in recreational use (for example camping, paintballing or other outdoor activities).
- 4.5 Due to the nature and scale of the development, the distance from the SINC and the vulnerabilities characteristic of ancient woodland, it is considered that the development is considered to have **no impact** the nearby ancient woodland SINC.

Habitats

Grassland

- 4.6 The grassland is considered to have little in the way of intrinsic biodiversity value due to the diversity of the species present, and the sown and highly managed nature. Impacts to grassland will be temporary in nature as the area for the haul road and site compound will be re-instated to grass once construction is complete.

- **Negligible** adverse ecological impact during construction.

Woodland

- 4.7 The woodland is a significant feature of the site, although its value would be affected by its recent history of clearance / intervention and likely disturbance from adjacent school use. This should be considered to have at least **local value**.

- 4.8 In terms of impacts, the development will result in the permanent loss of 20% of the woodland (0.1ha). In addition, a further 10% will be temporarily lost through the need for site access and working areas. However, the site has been planned to avoid the need to remove any of the mature oak trees within the woodland, which are a major feature of this resource on the site.

It is therefore considered that the development would have:

- **Major permanent adverse** impact on biodiversity at local level during construction.

Trees outside woodland

- 4.9 Outside the woodland, the work will require the removal of a very small number of young cultivated fruit trees near the site access, although the route has been designed to minimise this. Additionally, small numbers of young trees will need to be removed near the pond and a small number of semi-mature birch trees will need to be removed for the access onto the site through the eastern boundary.

- **Minor adverse impact** on biodiversity at a site level during construction

Hardstanding

- 4.10 The hardstanding on site has **negligible ecological value**.

- **No adverse impact** on biodiversity.

Species

Bats

- 4.11 The buildings at Tavistock School have been assessed as presenting negligible bat access and roosting potential. Many of the mature oak trees around the site and in the woodland do have good roost potential. However, no mature oak trees will be affected by the proposal. Additionally, the younger woodland and boundary trees that will be affected (typically birch, associated with the secondary growth woodland) have been assessed as presenting negligible bat roosting potential.

- **No adverse impact** on bat roosting habitat.

- 4.12 The woodland clearance will reduce the area of available foraging habitat, although given the high quality foraging resource in adjacent countryside, this impact is only considered to be minor.

- **Minor permanent adverse** impact on bat foraging habitat.

- 4.13 In terms of considering this development in the context of the Habitats Regulations, in view of the fact that bat roosts are unlikely to be present and affected by the proposals, it is considered that the development is **unlikely to result in an offence** against the EU Directive that protects bats.

Dormice

- 4.14 It is considered unlikely that dormice would be present at the development site.
- **No adverse impact** during construction and operation.
- 4.15 In terms of considering this development in the context of the Habitats Regulations, in view of the fact that dormice are unlikely to be present and the fact that only a small gap will be created in the southern hedge of the northern field, it is considered that the development is **unlikely to result in an offence** against the EU Directive that protects dormice.

Great crested newts

- 4.16 It is considered unlikely that GCN would be present at the development site.
- **No adverse impact** during construction and operation.
- 4.17 In terms of considering this development in the context of the Habitats Regulations, in view of the fact that GCN are unlikely to be present, it is considered that the development is **unlikely to result in an offence** against the EU Directive that protects GCN.

Reptiles

- 4.18 It is considered, based on the habitats present, that the site is likely to support a small population of widespread species, most likely slow worm and possibly common lizard. The majority of suitable habitat will be retained, with the exception of small areas lost to create the temporary access into the woodland and to clear the area needed for the temporary classroom to the north east near the pond.
- 4.19 Although any populations is likely to be small, the protected nature of these species means they do have biodiversity value over an above the site they occur in.
- 4.20 There would be loss of habitat in the short term during construction only in these areas, and if not managed sensitively, clearance could result in the killing / injury of small numbers of reptiles. It would consequently take some time for the local population to recover.
- **Minor adverse medium-term impact** at a **local level** during construction.

Nesting birds

- 4.21 The scrub and trees in the woodland area are likely to be a significant resource at a local level for nesting birds, and its loss would be likely to reduce the territories available to birds, certainly at a site level and possibly further afield.
- 4.22 Additionally, vegetation clearance has the potential to directly affect nesting birds, which are legally protected under the Wildlife and Countryside Act 1981 (as amended). If this takes place between mid-March and August (inclusive), an offence may be caused through the damage / destruction of nests and – if disturbance affects certain more threatened species – disturbance of eggs, dependent young and brooding adults.
- **Moderate permanent adverse impact** at **local level** during construction.

Counteracting Measures and Recommendations

- 4.23 The preceding section identified a range of impacts to ecological receptors that the development could cause **if** avoidance, mitigation or compensation measures were not implemented.
- 4.24 The following section sets out the identified adverse impacts and sets out the measures that need to be put in place to counteract the adverse impacts on biodiversity identified in the preceding paragraphs.

Woodland

- 4.25 There will be an unavoidable loss of woodland habitat. The extent of this habitat cannot be re-created elsewhere on site. However, the existing woodland is secondary woodland that has grown up in the last 40-50 years since the school was built. Understorey is dominated by rhododendron, and there are extensive areas of bramble and species more associated with ruderal areas.
- 4.26 There would therefore seem to be ample opportunity to implement a robust management plan to restore and enhance the retained areas of woodland and other areas of the site, to compensate for this overall reduction of extent.
- 4.27 An outline Biodiversity Restoration, Enhancement and Management Plan is set out in Appendix 1 of this report. This is specific to Tavistock School and this development proposal, and the planning authority would be encouraged to secure adherence to this plan. The plan is currently an outline plan rather than a detailed one. It is considered that the production of a detailed plan would be more effective once the initial clearance has been completed and construction commenced, as this would ensure that any minor changes at the site are accommodated. If site clearance can include additional clearance to begin to remove and control some of the rhododendron growth, a clearer picture of what can be achieved will emerge.
- 4.28 If the planning authority is satisfied with this general approach and if they are satisfied with the broad outline management plan in Appendix 1, it is suggested that the planning authority includes a condition on any planning permission to ensure that submission and approval of a detailed management plan within six months of the completion of the development.
- 4.29 This plan would incorporate additional measures to address the need to address other impacts, as set out in subsequent paragraphs. In particular, the measures will in many instances serve to restore and enhance botanical interest as well as providing valuable resources for bats, reptiles and invertebrates, all in the same feature or prescription.
- 4.30 Provided a suitable plan is implemented and maintained in the long term, it is considered that overall, there would be **no net loss of biodiversity value and no residual ecological impacts**.

Trees outside woodland

- 4.31 The loss of small numbers of trees around the site (outside the main wooded area) will be compensated for by planting of new trees. This is addressed in the overarching Biodiversity Restoration, Enhancement and Management Plan.

Bat foraging habitat

- 4.32 The loss of bat foraging habitat will be compensated for through the implementation of the over-arching Biodiversity Restoration, Enhancement and Management Plan. Specific measures include the creation of greater extents of woodland edge transitional habitat, specific planting prescriptions and the creation of dead wood habitat areas across the school site to encourage invertebrate populations.

Reptiles

- 4.33 The Biodiversity Restoration, Enhancement and Management Plan addresses the impacts associated with habitat loss.
- 4.34 Clearance of suitable reptile habitat will be carried out in a manner that ensures killing or injury of animals is avoided, through encouraging reptiles to leave the affected area into adjoining habitat with the use of sensitive habitat manipulation and clearance. Appendix 2 sets out a Method Statement for this, which incorporates the need to ensure clearance avoids impacts to nesting birds as well.

Nesting birds

- 4.35 The Biodiversity Restoration, Enhancement and Management Plan addresses the impacts associated with habitat loss.
- 4.36 Clearance of suitable nesting habitat will be carried out in a manner that ensures damage or destruction of occupied nests is avoided. Appendix 2 sets out a Method Statement for this, which incorporates the need to ensure clearance avoids impacts to reptiles as well.

5 Conclusions

- 5.1 A range of potential ecological receptors were identified at the development site. These were generally. The key receptors are the woodland area central to the site, the pond and associated vegetation to the north east and the mature oak trees in and around the site.
- 5.2 Simple avoidance measures during clearance of affected vegetation would ensure that most direct construction-related impacts would be avoided – for instance to reptiles and nesting birds..
- 5.3 Compensation measures will be required to address the loss of woodland habitat and consequent loss of bat foraging and bird breeding habitat. The primary delivery mechanism for this would be the implementation of a Biodiversity Restoration, Enhancement and Management Plan.
- 5.4 The Biodiversity Restoration, Enhancement and Management Plan includes measures to enhance the biodiversity value of the site.
- 5.5 In summary, provided the recommended avoidance, mitigation and compensation measures are secured through planning and implemented, the development will not result in a net loss of biodiversity and will contribute to biodiversity gains. It will thus be in accordance with local and national planning policy.

Appendix 1 – Outline Biodiversity Restoration, Enhancement and Management Plan

Introduction

This Plan is to provide measures to compensate for the permanent loss of woodland habitat resulting from the development at Tavistock School, and to provide measures to enhance other areas of the site.

It is presented as an outline Plan. If planning permission is granted, it is advised that a formal, more detailed Plan is produced, building on this outline Plan.

Overall Objectives

The overriding objective of the Plan is to ensure that there is no net loss in biodiversity value at the site as a result of the development proposals.

A secondary objective, in line with national planning policy (NPPF paragraph 109), is to enhance the biodiversity value of the site.

A further important objective is to enable the site to contribute to the educational activities at the school by ensuring that the retained and enhanced habitat can be managed – with additional infrastructure such as signage, trails etc – to provide an effective resource to help the school deliver environmental-related education.

This will broadly be achieved through measures to improve the quality of the retained woodland habitat as well as the quality and abundance of other biodiversity features around the site.

Baseline conditions

The pre-planning conditions (existing baseline) are as set out in the main Ecological Impact Assessment (EclA). However these will change as a result of the development. Therefore they will need to be reviewed and updated during and post-development to inform the detailed Plan.

In summary, the woodland is secondary woodland, having been largely cleared in the 1960s / 70s during construction of Tavistock and All Saints Schools, although the significant mature oak trees were largely retained. The woodland tree cover is dominated by secondary birch growth, while rhododendron dominates the understorey. Common woodland and ruderal species dominate the ground flora.

Targets and Indicators

Habitat extent

Target 1 – No reduction in extent of woodland below post-development baseline conditions

Target 2 – No reduction in extent of scrub habitat below pre-planning baseline conditions

Target 3 – No reduction in extent of potential reptile habitat below pre-planning baseline conditions

Vegetation composition

Target 4 – Restoration of high-quality transitional habitat around woodland boundary and scrub areas

Target 5 – Creation of sufficiently varied woodland structure incorporating open areas (25%) such as rides and glades, to provide an increase in botanical diversity; and increase in 10% by species numbers of typical woodland flora.

Additional biodiversity features

Target 6 – creation of a minimum of three reptile refugia / hibernacula around the site – two in the woodland edge areas and one in the pond area.

Target 7 – Installation of six tree-mounted bat boxes

Target 8 – Installation of ten bird nesting boxes on trees and buildings.

Education features

Target 9 – installation of biodiversity-related educational resources – e.g. interpretation boards, nature trail, tree labels etc.

Maps

A detailed map will be produced post-construction.

Management Prescriptions

A detailed set of prescriptions and a schedule of works will be produced as part of the detailed Plan, based on the targets set out above. Some of the targets are, however, largely self-explanatory at this stage, although detailed specifications will be provided (e.g. designs of bat boxes).

Monitoring

The site will be re-surveyed on an annual basis for three years post-completion. Subsequently the survey period will be reduced to once every 3-6 years. Reporting, together with assessments of condition and any recommended remedial measures or recommended additional work will be submitted to the planning authority.

Appendix 2 – Reptile and Nesting Bird Habitat Clearance Method Statement

Autumn / Winter clearance

October to February (inclusive)

Any existing piles of cut scrub, dead wood piles, rubble, compost heaps etc. will not be moved at this time – they may support hibernating reptiles, which will die if exposed in the winter.

In areas where work will be carried out, the existing vegetation (e.g. brambles, scrub, nettles, long grass etc) will be cut down to a height no lower than 200mm, but avoiding previously identified habitat piles. This will remove any potential bird nesting habitat before they start to breed and build nests in the spring.

Cut vegetation will be removed and used to help create new reptile habitat piles elsewhere on site – two in retained woodland edge habitat to be managed as reptile habitat and one near the pond.

Mid-March onwards

Pre-existing habitat piles will be dismantled by hand and material transferred to new locations. This removes potential refuges from affected areas.

Starting at points furthest from adjacent areas of boundary habitat such as woodland edge / hedgerows (i.e. within centre of areas affected by the access routes), remaining vegetation will be steadily strimmed down to approx 200mm.

These areas will be left for 24 hrs, then further cut to 50-100mm and this height maintained until full clearance required. This cut > wait > cut operation allows any reptiles to move to the retained adjacent vegetation of their own accord, while the continued strimming / mowing of the affected area ensures the area remains less suitable for reptiles – while they may bask in the exposed areas, all potential refuge has been removed.