Former Eastbrook Primary School, Southwick, West Sussex

Ecological Protection and Enhancement Plan

Southwick Protection &
Enhancement
EHM Ltd

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Job	Former Eastbrook Primary School, Southwick, West Sussex		
Report title	Ecological Protection and Enhancement Plan		
Version	Final v3.1		
File reference	RP-HED-091		
Author	James Webster MCIEEM,	EHM LTD	15/09/2023

1. Introduction

EHM Ltd has been commissioned to carry out an Ecological protection and enhancement plan for the development of a demolished school in Southwick, West Sussex. This report will provide the necessary information to help discharge the following planning condition:

Condition

Prior to the commencement of the development, a detailed Ecological Protection and Enhancement Plan shall be submitted to and approved in writing with the Local Planning Authority. This Plan should incorporate and expand on the outline measures identified in the Preliminary Ecological Assessment Report (undated). Thereafter, the development shall be in accordance with the approved Plan.

1.1 Background and approach

EHM Ltd understands that the proposal at Southwick is to develop around 22 dwellings in a mix of two- and three-bedroom houses with associated parking, roads, public open space, and ecological planting.

To meet the above planning conditions EHM has compiled a protection and enhancement plan. This is based on an assessment of the site and consultation of relevant planning policies and legislation. The site information is obtained from a Preliminary Ecological Assessment (PEA) conducted by EHM[1].

Following the PEA, a series of badger surveys were conducted to assess the sites use by badgers[2]. In addition, a Biodiversity Net Gain report has been compiled using the DEFRA biodiversity metric[3].

The ecological protection and enhancement measures will include the recommendations set out in these reports.

[1] James Webster (EHM Ltd.), 26/11/21. Land, Formerly Eastbrook Primary School, Southwick, West Sussex. Preliminary Ecological Assessment.
[2] James Webster (EHM Ltd.), 23/12/21. Land, Formerly Eastbrook Primary School, Southwick, West Sussex. Badger Survey. RP-HED-044.
[3] James Webster (EHM Ltd.), 14/06/2023. Land, Formerly Eastbrook Primary School, Southwick, West Sussex. Biodiversity Net Gain. RP-HED-042. V2

1.2 Site Description

The site covers an area of approximately 670m^2. The existing site is largely overgrown with areas of hard standing and a significant number of mature and semi-mature trees. The site is accessed via Park Way, a narrow dead-end road that extends from Manor Hall Road. A foot and cycle path extends from Park Way towards Southwick Park to the south along the western boundary, external to site. The site consists predominately of dense scrub and scattered trees with areas of grassland. There is a large area of hardstanding in the centre of the site and a small pond towards the Southeast corner. The southern section of the site contains earth mounds and there are pieces of playground equipment across the site.

To the north and east the site is bounded by residential development and back gardens. The Eastbrook Primary School is located to the west of the site and a sports field to the south. The local landscape is urban in nature consisting predominately of residential development. The Sussex coastline is within 1 km to the south of the site and the river Adur within 2 km to the west.

The site (as shown on figure 1) is in Southwick West Sussex; TQ 24800552. A location of the habitats is sown on the map in appendix 1.

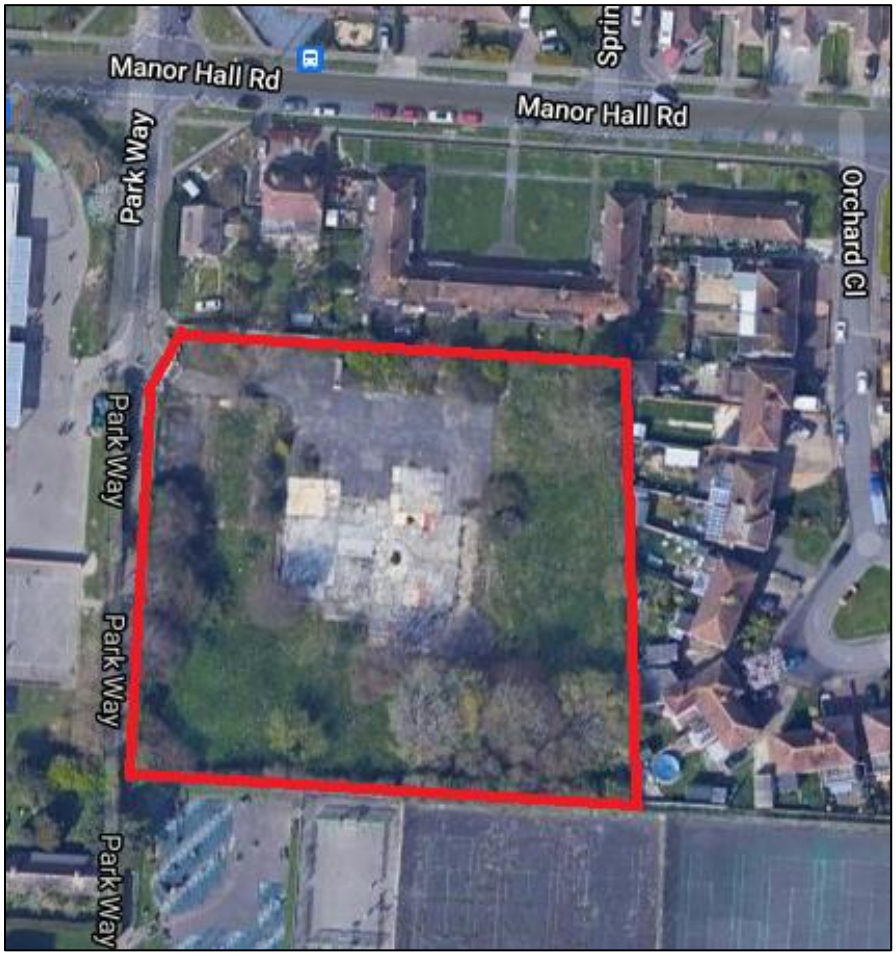


Figure 1: Approximate boundary of the site (image from Google).

1.3 Relevant Legislation and Planning policies

A full list of UK wildlife legislation and designations can be seen in the appendix. Relevant legislation implications for this site include;

- The Conservation of Habitats and Species Regulations 2010 (as amended);
- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way Act 2000;
- The Natural Environment and Rural Communities Act (NERC Act) 2006;

Planning policies, both local and national, may affect any proposed development. The proposals were assessed against policy guidance provided by the National Planning Policy Framework (NPPF, 2019) as well as local and district planning policies. The Adur Local Plan 2017[4] contained relevant policies such as;

- Policy 31: Biodiversity
    - *All development should ensure the protection, conservation, and where possible, enhancement of biodiversity, including nationally and locally designated sites, Biodiversity Opportunity Areas (BOAs), marine habitats and other Biodiversity Action Plan (BAP) habitat areas, wildlife corridors, and protected and priority species. If significant harm cannot be avoided (by locating development on an alternative site with less harmful impacts), then such harm should be adequately mitigated. Where it cannot be adequately mitigated then such harm must be compensated for. Where it cannot be compensated for, then planning permission should be refused.*

[4] https://www.adur-worthing.gov.uk/media/Media,159572,smxx.pdf

2. Site Biodiversity Assessment

2.1 Habitats Present

The site was dominated by grassland and scrub with several trees present across the site. The site contains large areas of hardstanding that were associated with the former school buildings. The site was not in use at the time of the site visit. The table below summarises the habitats on site. CIEEM guidance recommends that the value or potential value of an ecological resource or feature should be determined within a defined geographical context[5]. It recommends the following frame of reference;

- International;
- UK;
- National (i.e., England/Northern Ireland/Scotland/Wales);
- Regional;
- County (or Metropolitan - e.g., in London);
- District (or Unitary Authority, City, or Borough);
- Local or Parish;
- Site; and
- Within zone of influence only (of habitat).

The habitats have been assessed based on these criteria.

Habitat	Value	Comments
Hard standing	Zone of influence	The areas of hard standing provide little opportunities for wildlife.
Semi-improved grassland.	Site	Areas of grassland habitat with some species and structural diversity
Scattered Trees	Local	Several scattered trees across the site. A variety of species including mature and semi mature trees.
Scrub	Site	Areas of dense scrub located around the site. Contained a varied number of species.
Pond	Site	Small pond overgrown with bramble; some aquatic plants present.

Table 1: Summary of value of habitats present on site.

[5] GUIDELINES FOR ECOLOGICAL IMPACT ASSESSMENT IN THE UNITED KINGDOM. IEEM. June 2006.

2.1.1 BNG Baseline assessment

As part of the BNG assessment the habitats were classified using the UKHAB categorisation. The UKHAB habitat description has been converted from the phase I description following the habitat translation table set out in the DEFRA metric.

The metric used was the DEFRA Biodiversity Metric 3.1[6]. The baseline assessment is calculated by categorising the broad habitat and habitat type, the Phase I habitat category is converted into the corresponding UK Habitat Classification. This is based on the assessment carried out in section 3.1. The metric then assigns the habitat distinctiveness, the distinctiveness of a habitat is considered as a component of the quality of a habitat parcel. The distinctiveness band of each habitat has been preassigned in biodiversity metric 3.1.

A strategic significance is also assigned to each habitat type. Strategic significance relates to the spatial location of a habitat parcel and works at a landscape scale. It gives additional biodiversity unit value to habitats that have been identified as habitats of strategic importance to that local area. For this assessment the Biodiversity and Planning in Sussex document has been used which lists priority habitats[7].

Biodiversity metric 3.1 uses habitat condition as one of the measures of habitat quality. The condition assessment approach used in biodiversity metric 3.1 measures a habitat parcel against the ecological optimum state for that habitat. The biodiversity metric provides a list of assessment criteria for each habitat type. The condition of the habitat is then assessed against these criteria; the more criteria present within the habitat the higher the assessed condition.

The table below summarises the baseline habitat assessment. Areas of trees and scrub have been grouped into a woodland habitat for this assessment. The trees, outside of woodland, have been largely grouped into lines of trees. Where they are located individually, they have been classed as an urban tree. The site (small, medium, or large) is worked out based on their diameter at breast height (DBH). The area of the tree in the metric is then calculated using the urban tree help table.

The baseline assessment also includes a small linear area to the west of the site along an existing cycle path. This area was not assessed as part of the PEA.

The baseline condition of the habitats present on site is shown in table 2 below.

[6] STEPHEN PANKS A, NICK WHITE A, AMANDA NEWSOME A, MUNGO NASH A, JACK POTTER A, MATT HEYDON A, EDWARD MAYHEW A, MARIA ALVAREZ A, TRUDY RUSSELL A, CLARE CASHON A, FINN GODDARD A, SARAH J. SCOTT B, MAX HEAVER C, SARAH H. SCOTT C, JO TREWEEK D, BILL BUTCHER E AND DAVE STONE A 2022. Biodiversity metric 3.1: Auditing and accounting for biodiversity – User Guide. Natural England.

[7] https://dnu7gk7p9afoo.cloudfront.net/Files/swt-planning-guidance-2014.pdf

Broad habitat	Habitat type	Area (ha)	Distinctiveness	Condition	Strategic Significance
Urban	Developed land; sealed surface	0.199	V.Low	N/A - Other	Low Strategic Significance
Heathland and shrub	Mixed scrub	0.154	Medium	Poor	Low Strategic Significance
Urban	Urban Tree	0.2229	Medium	Moderate	Medium strategic significance
Lakes	Ponds (Non-Priority Habitat)	0.002	Medium	Moderate	High strategic significance
Grassland	Other neutral grassland	0.237	Medium	Poor	Medium Strategic Significance
Woodland and forest	Other woodland; broadleaved	0.105	Medium	Poor	High strategic significance
Grassland	Modified grassland	0.029	Low	Poor	Low Strategic Significance
Hedgerow	Line of Trees (Ecologically Valuable)	0.138 km	Medium	Moderate	Medium strategic significance
				On-site Baseline area habitats	3.19 Habitat Units
				On-site Baseline Hedgerow habitats	1.21 Hedgerow Units

Table 2: Summary of BNG baseline assessment.

2.2 Protected Species Potential

Table below summarises the sites potential for protected and notable species. Designations for potential are as follows;

- High- Definite signs of species identified on site and habitat considered suitable.
- Medium- habitat considered suitable but obvious signs not necessarily detected.
- Low- no obvious signs and habitat considered sub-optimal. Though species may be present
- Negligible- highly unlikely that species is present.

Species	Sites potential to support	Justification
Bat roosts- mature trees	Low	Several of the semi- mature trees on site are of an age and structure that have potential to support bat roosts.
Bat foraging/ commuting areas	Low	The habitats on site provide some suitable habitats for bats. There is limited connectivity across the local landscape.
Badgers	High	Evidence of an active outlier sett on site.
Dormice	Negligible	No evidence of dormouse seen. Habitats not considered optimal for this species. No records of Dormouse in the local area.
Small mammals	Moderate	The habitats on the site provide potential to support small mammals.
Reptiles	Low	Some of the habitats on site provide potential to support reptiles. Limited connectivity to wider areas.
Common Amphibians	Low	Small pond on site with some areas of suitable terrestrial habitats.
Great Crested Newts	Negligible	Pond on site considered a 'poor' habitat for GCN. Some suitable terrestrial habitats with limited connectivity to wider landscape.
Breeding birds	Moderate	The scrub and trees all provide suitable nesting opportunities for birds.
Plants	Low	The site provides some limited suitability for notable plant species.
Invertebrates	Low	The habitats on site have some potential to support notable invertebrates.

Table 3: Summary of sites potential to support certain protected and notable species.

2.3 Protected Areas

2.3.1 Statutory Protected Areas

There are no statutory protected areas within 1 km of the site.

2.3.2 Non statutory protected areas

There is a Local Wildlife Site (LWS) located to the north of the site (figure 2). This is called Side Hill scrub and is a small but well-established area of mixed scrub on the urban fringe with a notable specimen of Wych Elm (*Ulmus glabra*) and very good public access.

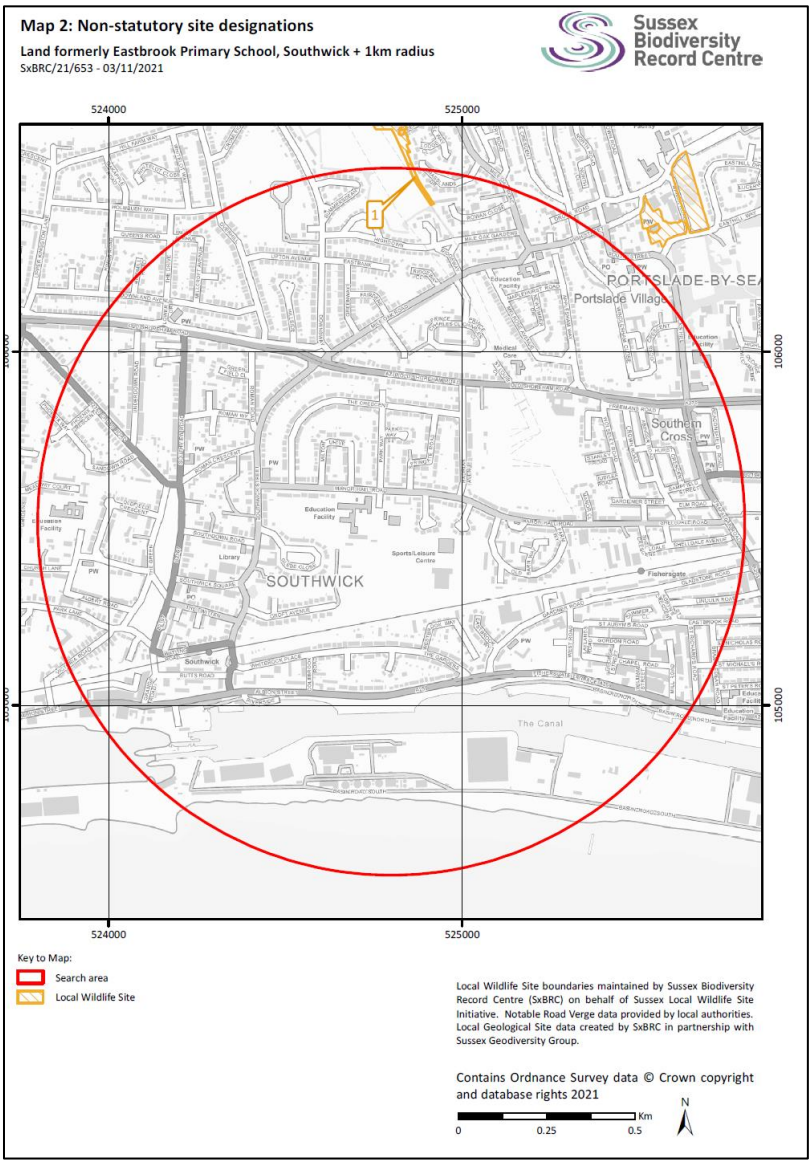


Figure 2: Location of statutory protected areas (from Sussex Biological Records Centre).

2.3.3 Priority Habitats

There are areas of priority habitat within 1 km of the site. The local area contains habitats that are listed on the Priority Habitat Index (PHI). This includes pockets of deciduous woodland to the west and Northeast of the site on the edge of the 1 km search radius. Open water habitat is located to the south of the site incorporating an area of marina/ dock. The coastal areas contain habitats such as coastal vegetated shingle and intertidal mud flats. Ancient/ veteran trees are located approximately 200m to the east of the site.

These habitats are not located within proximity of the site (figure 3).

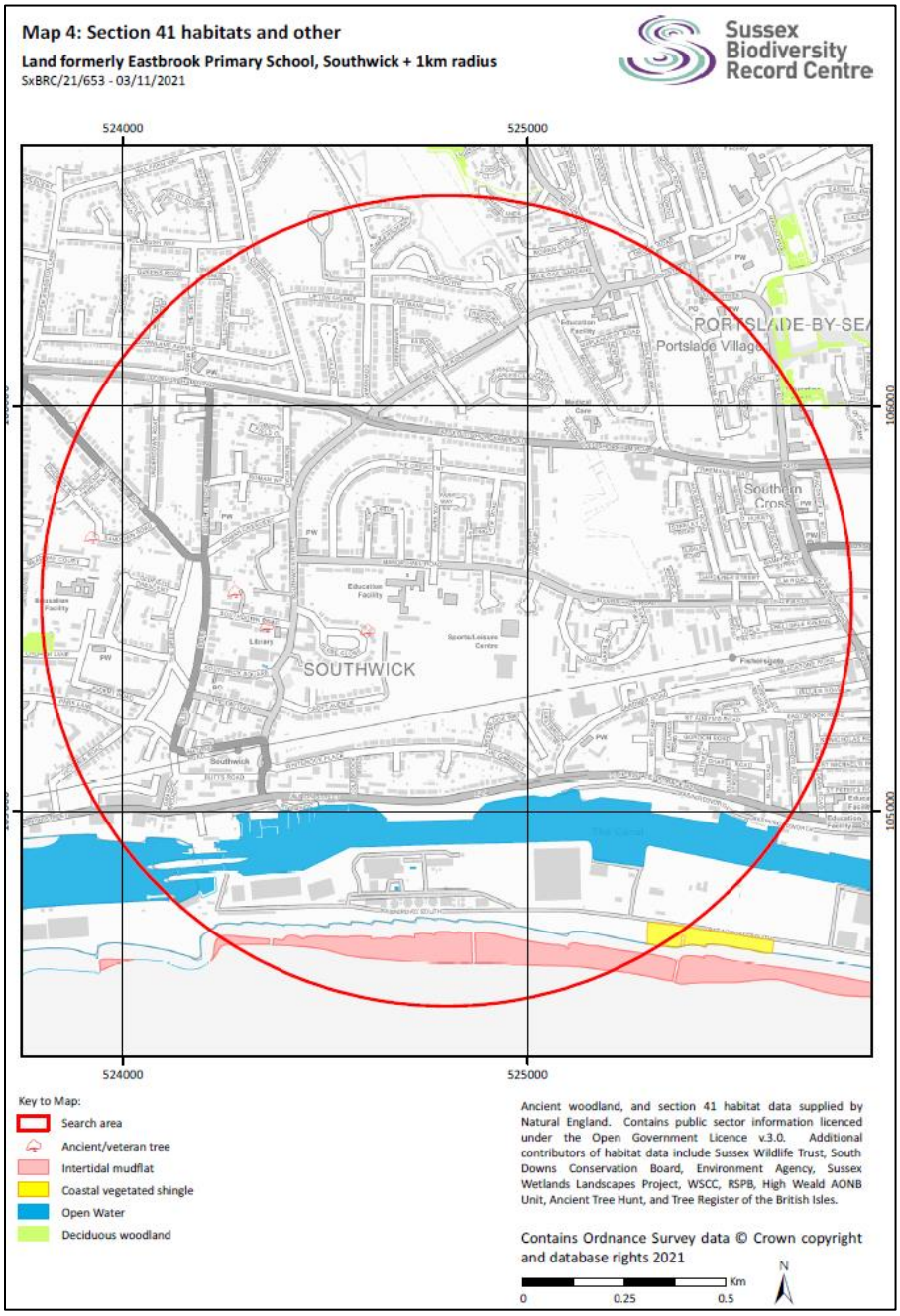


Figure 3: Location of priority habitats (from Sussex Biological Records Centre).

3. Ecological Protection Measures During Construction

3.1 Scope

To help identify necessary protection measures a risk assessment of potentially damaging activities will be undertaken. Suitable protection measures are set out following this assessment.

The protection measures will also so incorporate the recommendations from the PEA and subsequent badger survey reports.

3.2 Risk assessment of potentially damaging construction activities

The construction has potential to imapct the ecology on site. The below table summarises the potential risks from development activities. The following sections will set out how this potential risk will be managed.

Ecological Feature	Ecological Feature Description/ Comments	Potential Impact	Relevant Planning Policy/ Legislation
Local Wildlife Sites	There is a Local Wildlife Site (LWS) located to the north of the site.	Potential for indirect impacts of construction such as increased noise, human activity, and dust deposition. Could lead to degradation of habitat and indirect adverse effects on species it supports	National Planning Policy Framework (NPPF). Policy 31: Biodiversity Policy 34: Pollution and contamination
Priority Habitats	Priority habitats are located within 1 km of the site. Such as the coastal areas to the south of the site.	Potential for indirect impacts of construction such as increased noise, human activity, and dust deposition. Could lead to degradation of habitat and indirect adverse effects on species it supports	National Planning Policy Framework (NPPF). Policy 31: Biodiversity Policy 34: Pollution and contamination .
Badgers	Outlier sett in southeast corner of the site.	Potential loss of badger sett. There is a potential for badgers to become trapped on-site during construction. Potential badger habitat could be impacted directly or indirectly.	Protection of Badgers Act 1992 Policy 31: Biodiversity
Bat roosts	Some of the mature trees were considered as having potential to support bat roosts.	Potential loss of bat roosts. Potential disturbance to bat roosts.	Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) Schedule 2 of the Conservation of Habitats and Species Regulations 2010 Policy 31: Biodiversity
Bat Foraging/ commuting habitat	Habitats within site are likely to be used by local populations of bats for foraging and commuting.	Potential dissuasion of bats from foraging/ commuting areas, possibly resulting in reduced prey availability/ reduced fitness of individuals and population decline.	
Nesting birds	Habitats on site likely to support nesting birds.	Accidental injury/ mortality from vegetation clearance/ vehicular damage. Accidental degradation of nests and injury or mortality of young due to dust deposition.	Section 1 and Schedule 1 of the Wildlife & Countryside Act 1981 (as amended). Policy 31: Biodiversity
Reptiles and Common Amphibians	The site has potential to support reptiles and common amphibians.	Accidental injury/ mortality from habitat clearance. Indirect impacts to habitats.	Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Policy 31: Biodiversity
Invertebrates	Habitats on site have low potential to support protected/ notable invertebrates.	Accidental injury/ mortality due to smothering by airborne pollution/ deposition of spoil from runoff. Indirect effects of pollution damage to habitats.	Policy 31: Biodiversity

Table 4: Impact Assessmnet**.**

3.3 Tree Protection Zones and Wildlife Areas

Tree protection will be established around several of the retained trees. This will help ensure the protection of retained trees as well as protecting areas for biodiversity. The area in the Southeast corner of the site will be retained. Works in this area will be limited to avoid disturbance to badger sett and other wildlife.

3.4 Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction.

The following measures will be employed during construction to reduce impacts to wildlife. This will be a combination of pollution control measures and practical measure to protect biodiversity during construction.

The selected constructor shall operate an environmental policy in which supports the following values, to:

- Conduct their activities with proper regard to the protection of the environment.
- Comply with all relevant regulatory and legislative requirements and codes of practice.
- Communicate with local communities to ensure the work causes the minimum disturbance and disruption.
- Ensure that staff have a good understanding of the environmental impacts of construction work and how to minimise these impacts.
- Ensure their suppliers and sub-constructors apply similar standards to their own work.

3.4.1 Waste and Material Management

All waste materials will be removed from site by a licensed waste constructor utilising skip containers within the site compound, collected and or changed by lorries.

Waste from this site will be dealt with in accordance with the waste duty of care in Section 34 of the Environmental Protection (Duty of Care) Regulations 1991 (b). Materials will be handled efficiently, and waste managed appropriately. The constructor shall aim to minimise waste and to recycle as much material as possible. Due to the limited space on site, waste will generally be sorted for recycling at the waste transfer station.

3.4.2 Dust, Noise, and vibration

The following Plan includes measures to practicably mitigate those ordinary consequences from construction activities and as a matter of good practice:

<u>Dust</u>

- Demolition activities will use water as a dust suppressant;
- All loads delivered to or collected from the site will be covered where appropriate;
- All road vehicles will be requested to comply with set emission standards;
- Scaffold will have debris netting installed.

<u>Noise and Vibration</u>

- The constructor shall take reasonable steps to minimise any noise disruption to adjacent occupiers.
- Any necessary noisy works will be restricted to the Monday to Friday 8.00am to 6.00pm and 8.00am to 1.00pm on Saturdays.
- Electrically operated plant will be used where practical.
- Try to ensure all plant used on the site is effectively silenced where possible i.e.: switch off when not in use.
- No externally audible radios or other audio equipment will be allowed on site.

Water

The Client, Principal Contractor, and all Contractors on this project will ensure the protection and integrity of all watercourses and drainage systems and associated flora and fauna of the site by preventing any surface water run-off or potential sources of contamination from reaching the watercourses / drainage systems and the adjacent woodland.

All surface water drainage from impermeable areas and roads will pass through trapped gullies prior to being discharged into any watercourse. These drains will be blocked with straw bales or terram, as required. As appropriate, gullies will have gully guards which will be regularly inspected and replaced or cleaned as necessary, with a record kept. Gully bags will be fitted to prevent silt run off into existing drainage systems where necessary.

If silt spillage is identified, it will be treated as a priority to stop the flow and contain the spillage before it enters surface water drains or watercourses/ground.

Reinstatement

On completion of the works any damage to vegetation within or around the site will be reinstated with new seeding/turf as required.

Fuel/ Chemical Storage and Use

Any facilities for the storage of oils, fuels or chemicals will be sited on impervious bases and surrounded by impervious bund walls. The volume of the bunded compound will be at least equivalent to the capacity of the tank plus 10%.

If there are multiple tankages, the compound will be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%.

All filling points, vents, gauges, and sight glasses will be located within the bund. The drainage system of the bund will be sealed with no discharge to any watercourse, land, or underground strata. Any pipework will be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets will be detailed to discharge downwards into the bund.

Tanks will be sited in a safe area, away from manholes and surface water gullies. Tanks will be double-bunded, non-gravity diesel tanks. The Fuel tank and hose will be locked secure when not

in use and the site will possess a spill control kit. A clearly defined drip control area will be introduced around the tank. Tanks and surrounds will be regularly inspected for damage, spills, or leaks as part of weekly inspection.

All measures to control chemical storage, discharge and spillage will cover;

- Oil Storage tanks more than 200 litres
- Double Skinned (twin-walled) tanks
- Proprietary Tank Systems
- Mobile Bowsers
- Security
- Dealing with Spills
- Prevention of Contamination of Rivers & Streams
- Storage and use of other chemicals (quantities less than 200L)

3.4.3 Vegetation clearance

The proposed development is likely to require some vegetation clearance. As a precaution it is recommended that any vegetation clearance will be cut down in stages.

Grassland/ Ground vegetation

- Clearance of tall vegetation should be undertaken using a strimmer or brush cutter with all cuttings raked and removed the same day.
- Cut vegetation over three consecutive days to a height of no less than 150mm at the first cut, 75 mm at the second cut and 30 mm at the third cut.
- Cutting should work towards retained areas of habitat.
- If a reptile or amphibian is seen during these works, all works should stop, and an ecologist consulted.
- This should be carried out in spring or summer months when reptiles and amphibians will be active enough to safely move out of the way.

Shrubs

To avoid impacted to protected or notable species any shrubs or scrub should be cut down using the following methodology;

- First cut down shrubs to above ground level by hand. Leaving the stumps in situ overnight.
- Second stage will be to grub out stumps from ground. Leave material on site for at least overnight.
- Clearance of trees shrubs should be outside of nesting bird season. If clearance is required between March and September, then works should be carried out under ecological supervision.

Trees

Some trees will be removed as part of the development. As a precautionary method it is recommended that the trees be soft felled. This will involve cutting the tree in sections and lowering cut sections carefully to the ground. Cut logs should be left on site overnight.

3.4.4 Reptile and amphibian protection measures

Retaining and protecting the habitats to the south of the site will ensure potential habitat for these species will be retained. Though the presence of reptiles and amphibians is not considered unlikely in the development area to reduce risks of potential impacts the following measures will be followed during development;

- The development should be carried out in habitats unlikely to support reptiles/ amphibians, namely; Buildings, hardstanding, and short mown amenity grassland.
- Construction exclusion zone will be established around the development to ensure construction personnel and materials are restricted to areas where reptiles/ amphibians are unlikely to be present.
- Vegetation around the site will need to be removed. This will be cut down in stages;
  - First stage:
    - Cut down scrub/ trees to above ground level by hand. Leaving the stumps in situ overnight.
    - The vegetation will need to be reduced to a height 150-200mm using hand tools (e.g., strimmers). It is recommended that cutting works towards the south of the site, where there is connectivity to wider habitats. All potential refugia such as log or rubble piles should be removed by hand to outside of work area.
  - Second stage:
    - Grub out stumps from ground. Leave material on site for at least overnight.
    - After a period of at least two days has passed a second vegetation cut should be undertaken to ground level. Again, it is recommended that this second-stage cutting works towards the Southeastern edge of the site. All cuttings to be removed from work area. The site can then be completely cleared and worked upon as necessary.
  - Move rubble pile carefully from the construction area.
  - If a reptile/ amphibian is seen, then works should stop until an appropriate mitigation strategy can be agreed and implemented.
- Additional soft landscaping could be incorporated to provide additional suitable habitat on site.
- During Construction:
- Backfill trenches and other excavations before nightfall or leave a ramp to allow newts to easily exit.
- Raise stored materials (that might act as temporary resting places) off the ground, e.g., on pallets.
- The development will maintain connectivity across the landscape for amphibians/ reptiles and not cause and fragmentation for newts moving to or from ponds.

3.4.5 Bat protection measures

Some of the mature trees have a low potential to support a bat roost. To reduce any potential impacts contractors will be briefed on potential roost features bats might exploit, within trees. In the unlikely event that bats or significant evidence of bats (for example large accumulations of fresh bat droppings) are encountered, works should stop immediately, and advice sought from a qualified ecologist and/or Natural England.

If the mature trees with a low roost potential are required to be removed, then this should be soft felled; felled in sections and lowered to the ground. With the cut sections left in situ overnight.

The habitats on site provide potential bat commuting and foraging habitat. To avoid disrupting the potential bat foraging/ commuting habitat during construction it will be important to;

- Avoid illuminating the wider habitats on site at dusk,
- Limit work to daylight hours
- Limit noise disturbance and other forms of pollution such as dust
- Maintain the wider habitats on site, this is largely being achieved.

Suitable commuting and foraging habitat are located on site. Areas of woodland, trees and scrub will be retained to the south of the site as well as an established tree lone to the north of the site. These habitats will continue to provide commuting and foraging habitat for bats. Additional bat habitat will be planted across the site (see section 4.3).

3.4.6 Tree protection

Most of the existing trees will be retained on site. These will have adequate root and crown protection as necessary.

3.4.7 Badgers

A likely outlier badger sett is located to the Southeast of the site (G1 on the figure below). The area where the sett is located will be retained. G1 is within 30m of the proposed development and therefore could be impacted by the development.
The potential impacts of the development are that:

- badgers could be hurt or killed during the works.
- the sett will be lost.

The aim of the mitigation will be to retain the sett on site. This will prevent additional disturbance to the Badgers by closing the sett (which could cause them to start digging elsewhere on-site for a new sett or in neighbouring land). The land around the sett will be enhanced which will provide a benefit for this species on site.

A licensed badger worker will supervise works on site where required. To avoid disturbance of the sett mitigation will include the following actions;

- All Site operatives will be briefed on the location of the sett and what mitigation measures are in place to protect any badgers that may be using the sett
- Supervision of certain works completed within 20m of the sett, including landscaping works and the installation of patio/footpaths.
- Excavations such as footings will only occur outside of the 20m buffer and under supervision only if within a 30m buffer.
- The licensed badger worker will provide training to staff and provide their contact details.

Prior to works starting on site an updated walkover of the site will be conducted on site by a suitably qualified ecologist to ensure that the sett is in a similar condition as the previous surveys. If the sett has become larger and shows either (1) it has potentially expanded into a main sett and/or (2) entrances have been dug closer to the proposed house foundations, then a licence will need to be applied for due to the potential for damaging the sett itself with excavations.



Figure 4: Location of potential sett entrances and holes in the boundary fences

There is potential for badgers to be foraging on site. By retaining the woodland and scrub to the south of the site this will protect potential habitats for this species and retain corridors across the site. To ensure badgers are not harmed during the development the following actions will be implemented:

- To prevent badgers becoming trapped in open earth works or excavations that any excavations, that are to be left overnight, should either be covered over, or a board placed securely within the excavation that allows access from the bottom of the excavation to the ground level.
- All excavations and trenches should be inspected each morning before works commence. If a badger is found trapped on site, the ecologist or local badger group/ RSPCA should be contacted.
- Any lose or soft material such as topsoil should be covered overnight and when not in use to discourage their use by badgers as potential setts. Any mounds should be inspected daily to ensure badgers have not established a sett. If a potential sett is discovered an ecologist should be consulted immediately and the area not disturbed.
- If pipework (over 120mm in diameter) is stored on site, the ends should be covered and inspected before use.
- Chemicals will be stored in a secure/ bunded container to avoid disturbance by badgers.

Post development the area immediately around the site will be retained and enhanced. The section of vegetation along the southern boundary will be retained to provide connectivity to and from the site.

Suitable reinforced fencing may be required along the garden boundaries closest to the sett to stop badgers entering the garden habitats.

3.5 The location and timing of sensitive works to avoid harm to biodiversity features.

3.5.1 Location

As can be see form the plan in appendix 2 the development will occur within areas that contain existing areas of hardstanding. Ecologically important areas will be retained on site.

3.5.2 Timings

To ensure breeding birds are not impacted any trees, scrub or shrubs that may require removal should be removed outside of the breeding bird season, this typically runs from March to September. If vegetation/ buildings require removal during the nesting bird season the area should be subjected to a survey by an experienced ecologist. If there are any nest sites located within the work area a suitable exclusion zone will have to be established until the chicks have fledged.

The ground vegetation clearance should be carried out when reptiles and amphibians are active, typically between April and October.

3.6 The times during construction when specialist ecologists need to be present on site to oversee works.

An Ecological Clerk of Works (ECoW) will likely be required to supervise;

- Soft felling of trees
- Vegetation clearance
- Updated badger survey
- Supervision of works within proximity (30m) of badger sett (licenced ecologist)

3.7 Responsible persons and lines of communication.

The people responsible for each action are shown in table 4.

In event of any ecological issues the project ecologist will be contacted:

- James Webster MCIEEM
- 01784 918518
- james@ehmltd.com

For badger specific queries please contact;

- Lyndsey Barratt BSc (Hons) PGCert ACIEEM
- 01329 832 841
- lyndsey@ecosupport.co.uk

3.8 Use of warning signs

The wildlife areas discussed in section 3.3 will be marked by suitable signage. Example of the sign is shown in appendix 5, this will be placed on steaks buried at safe depths in the ground.

3.9 Ecological Protection Summary

The table below summarises the protection measures and responsibilities.

Ecological Feature	Potential Impact	Protection- Action	Timings	Responsibility
Local Wildlife Sites	There is a Local Wildlife Site (LWS) located to the north of the site.	Follow pollution control measures set out in section 3.4. Erect biodiversity exclusion fencing section 3.3 and 3.9	Before and during construction.	Contractor
Priority Habitats	Priority habitats are located within 1 km of the site. Such as the coastal areas to the south of the site.	Follow pollution control measures set out in section 3.4. Erect biodiversity exclusion fencing section 3.3 and 3.9	Before and during construction.	Contractor
Badgers	Outlier sett in southeast corner of the site. Will be removed as part of the development	Updated walkover of site to assess status of set.	Before construction.	Licensed Ecologist
		Supervision of works within proximity of badger sett.	During construction	Licensed Ecologist
		Follow badger protection measures during construction	During construction	Contractor/ Ecologist
Bat roosts	Some of the mature trees were considered as having potential to support bat roosts.	Erect biodiversity exclusion fencing section 3.3 and 3.9. Follow bat protection measures section 3.4.5 Follow pollution control measures set out in section 3.4	Before and during construction.	Contractor/ Ecologist
Bat Foraging/ commuting habitat	Habitats within site are likely to be used by local populations of bats for foraging and commuting.			
Nesting birds	Habitats on site likely to support nesting birds.	Erect biodiversity exclusion fencing section 3.3 and 3.9. Follow pollution control measures set out in section 3.4. Clear vegetation outside of nesting bird season.	Before and during construction. Veg clearance outside nesting bird season	Contractor/ Ecologist
Reptiles and Common Amphibians	The site has potential to support reptiles and common amphibians.	Erect biodiversity exclusion fencing section 3.3 and 3.9. Follow pollution control measures set out in section 3.4. Follow reptile/ amphibian protection measures section 3.4.4	Before and during construction. Ground vegetation best cleared April – October.	Contractor/ Ecologist (if required)
Invertebrates	Habitats on site have low potential to support protected/ notable invertebrates.	Erect biodiversity exclusion fencing section 3.3 and 3.9. Follow pollution control measures set out in section 3.4. Follow amphibian protection measures section 3.4.4	Before and during construction.	Contractor/ Ecologist (if required)

Table 5: Summary of CEMP actions and responsibilities

4. Biodiversity Enhancements

The aims of the enhancements are to provide a long-term benefit for local habitats and species. This enhancement plan has been produced in line with the recommendations in the PEA report and in line with the required habitat enhancements and creation identified in the Biodiversity Net Gain report.

4.1 Bat Boxes and Bird Boxes

To enhance the local bat population and provide roosting opportunities within the site artificial roost sites will be incorporated into the development. Bat boxes will be incorporated into the fabric of each new building; the Ibstock Enclosed Bat Box (B and C) [8] can be easily incorporated into the exterior of a building. Boxes will be placed on elevations that face areas tree or vegetation.



Figure 5: Proposed bat box to be incorporated into each building.

The inclusion of bird boxes into the proposed development will provide a benefit for local bird population. A range of different boxes is recommending including nest features that can be incorporated into the buildings such as Swift nest boxes[9]. At least one swift box will be incorporated into each building.

In addition, at least 5x Vivara Pro WoodStone Open Nest Box (or similar) will be erected in retained areas. This nest box is suitable for a variety species including; Wrens (*Troglodytes troglodytes*), Robins (*Erithacus rubecula*), spotted flycatchers (*Muscicapa striata*), wagtails (*Motacilla sp*.) and song thrushes (*Turdus philomelos*). The boxes are best placed between 1.5m to 3m amongst dense vegetation where possible.

[8] https://www.ibstockbrick.co.uk/kevington/eco-products/
[9] https://www.ibstockbrick.co.uk/kevington/eco-products/

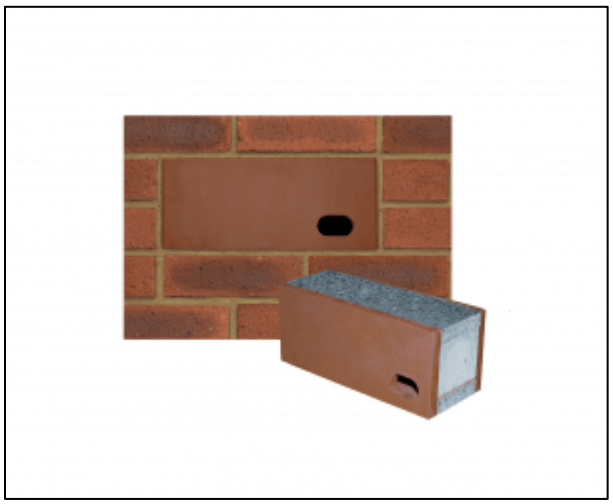


Figure 6: Example of swift box that can be incorporate into a building.



Figure 7: Proposed bat boxes to be erected in retained vegetation.

4.2 Hedgehog Access

Hedgehog access will be created by creating a 13cm x 13cm hole at the base[10] of fencing or by using Hedgehog Gravel Board[11].These simple features allow hedgehogs to travel between gardens and increase habitat connectivity. To ensure these are not blocked, small signs can be painted or erected above the hole.

Hedgehog access will be added to each section of new garden fencing within the development.

[10] https://www.hedgehogstreet.org/help-hedgehogs/link-your-garden/
[11] Ibstock-EcoHabitats-eBook-v13-.pdf (ibstockbrick.co.uk)

4.3 Landscape and Habitat Enhancements

The proposed landscape layout is shown in appendix 2. This will include several enhancements for wildlife and will help the development to achieve a Biodiversity Net Gain. The table below summarises the habitats that will be enhanced and created as part of the development the category from the landscape plan (appendix 2) are shown in parentheses next to the metric habitat classification. The location of these habitats is shown in appendix 4.

This includes some basic information on required enhancements more detail is set out below. The enhancements are made in line with the condition assessments within the DEFRA metric. The recommendations will help the habitat achieve the target condition.

Newly Created Habitat/ Enhanced Habitat	**Area (ha)**	**Distinctiveness**	**Desired condition**	**Strategic Significance**	**Required Enhancements/ Management**
Developed land; sealed surface	0.437	V.Low	N/A - Other	Low Strategic Significance	• Erect Bird and Bat boxes within fabric and on the building.
Vegetated garden (lawn turf, groundcover mix, low height hedges)	0.152	Low	Poor	Low Strategic Significance	• Condition fixed as 'poor'
Other neutral grassland- retained. (Wildflower mix, swales with wildflower)	0.0563	Medium	Moderate	Medium Strategic Significance	• Sow wildflowers mix with 9-15 species/ m^2. • Varied sward height- >20% <7cm and >20% <7cm. • Maintain Bracken <20% and scrub <5%. • Maintain an absence of nonnative species and <5% undesirable species/ damage.
Urban Tree– (Proposed tree planting, 16x medium tree, existing trees retained)	0.586	Medium	Moderate	Medium strategic significance	• Plant trees across site • Plant to required horticultural standards. • Manage to horticultural standard. • Allow dead wood to be retained where possible. • Allow canopy to develop and micro habitats to develop. • Retain trees in garden habitats
Line of Trees (Ecologically Valuable) (Existing trees retained)	0.053 (km)	Medium	Moderate-good		
Other woodland; mixed- retained. (Native vegetation mix, wildflower mix,)	0.0659	Medium	Poor-moderate	High Strategic Significance	• Allow trees to grow naturally as possible. • Manage to good horticultural standard. • Encourage micro habitat diversity. • Plant native scrub/ hedgerow species- Add additional mixed native scrub species- At least 4 species, no species more than 75%. • Control non-native species if present • Sow woodland floral mix e.g., EW1[12]

[12] https://wildseed.co.uk/mixtures/view/11

Newly Created Habitat/ Enhanced Habitat	Area (ha)	Distinctiveness	Desired condition	Strategic Significance	Required Enhancements/ Management
Mixed scrub retained. (Hedges- existing retained)	0.0214	Medium	Poor-moderate	Moderate Strategic Significance	• Remove undesirable species if present; cherry laurel *Prunus laurocerasus*, snowberry *Symphoricarpos spp*., buddleia *Buddleja spp.*, cotoneaster *Cotoneaster spp.* • Add additional mixed native scrub species- At least 4 species, no species more than 75%. • Sow wildflower grassland mix in retained areas of scrub on site, Add log piles.
Native species rich Hedgerow- created. (Native Hedges)	0.166km	Medium	Moderate	Moderate strategic significance	• Enhance with additional hedgerow species. • Maintain an average height of at least 1.5m along its length. • Maintain an average width of at least 1.5m along its length. • Ensure there are no gaps present. • Limit trimming to winter months, where possible, and trim sections on rotation to maintain a diversity of structure.
Ponds (Non- Priority Habitat)- retained. (Pond)	0.002	Medium	Poor	Good	• Ensure water levels can naturally fluctuate. • Ensure pond does not contain any non-native invasive species. • Plant margins with native emergent species • Coppice scrub around pond to reduce shading to <50%

Table 6: Summary of enhancement of retained habitats.

4.3.1 Grassland creation

The central grassland area will contain a mixture of grassland habitats that have been classed as 'other neutral grassland' within the BNG metric. This will encompass a wildflower grassland mix as well as some earth bunds. Swales will be incorporated along the road edges which will add an additional structural element.

The grassland will be sown with a suitable native mix such as Wildflower Turf Landscape 34[13]. With the swales being planted with SUD 37 mix[14].

Follow method for establishing meadow.

- Endeavour to select ground/ use topsoil that is not highly fertile and does not have a problem with perennial weeds. Good preparation is essential to success so aim to control weeds and produce a good quality seed bed before sowing.
- To prepare a seed bed first remove weeds using repeated cultivation. Then plough or dig to bury the surface vegetation, harrow, or rake to produce a medium tilth, and roll, or tread, to produce a firm surface.
- Sow in early autumn
- The seed must be surface sown and can be applied by machine or broadcast by hand.
- To get an even distribution and avoid running out, divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a roll, or by treading, to give good soil/seed contact.

4.3.2 Tree Planting

The centre of the site will contain a relatively large public green space which will consists of grassland habitats with several planted trees, these will be 'medium' (90cm BHG when mature). Several other trees will be planted across garden habitats.

This will consist of the native tree species field maple (*Acer campestre*), oak (*Quercus rubra*) and silver birch (*Betula pendula*). And ornamental cherry (*Prunus serrulate*). These trees will provide future nesting bird habitats as well as benefiting invertebrates and commuting/ foraging bats.

Dig the planting pit to the correct depth – recommend a planting pit no deeper than the container unless you have specific issues with drainage throughout your site.

The width of the planting pit should be a minimum of one and a half times as large as the root-ball/container and up to a maximum of two times as wide, if the soil is very compacted. This means that a root-ball of 40cm wide should be planted in a hole at least 60cm wide.

Use rabbit guards supported by small canes to protect from rabbits and deer browsing. After planting mulch with suitable material that is available, leaf mould or wood chips, but not too deep – up to 50mm.

[13] https://wildflowerturf.co.uk/products/wildflower-turf/landscape-34/
[14] https://wildflowerturf.co.uk/products/wildflower-turf/suds-turf/

Topsoil specification for the tree and hedge plantings shall follow BS 3882: 2015. A depth of 300mm topsoil shall be provided, with suitable (loosened) subsoil to provide the remainder of the minimum rooting depth.

4.3.3 Woodland/ Scrub Enhancement

The woodland and scrub to the south of the site will be retained and enhanced with additional wildflower seeding. The seed mix will be the germinal WFG8 Hedgerows and Shaded Areas[15].

Seed is best sown in the autumn or early spring. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out, divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed.

As part of the ongoing management, post development, additional native tree species could be added.

4.3.4 Control invasive species

The areas of retained scrub and woodland contain areas of invasive species such as laurel (*Viburnum tinus*) and Buddleia. One of the best ways to kill a buddleia is to cut it down just above ground level, wait for new growth to shoot, and open and then spray with a weedkiller that also kills the roots, usually a weed killer that contains glyphosate.

To control Laurel:

- Cut during the winter (September to March), focussing on older, seedbearing bushes first, and follow up with stump treatment immediately.
- Pull up any seedlings if they come out easily and dig out any plants manually where feasible (don't leave any roots behind)
- Treat young bushes, any regrowth from stumps and any remaining seedlings with a foliar spray mixed with an adjuvant (this breaks down the waxy layer on the surface of the leaf) between May to October.
- Cuttings should be burnt on site or removed by appropriately licensed waste contractor.

4.3.5 Native Hedgerow

Hedgerow planting is proposed across the site. Native hedgerows will contain a mix of Hazel (C*orylus avellana*), Hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*) and elder (*Sambucus nigra*).

Hedge planting methodology

Hedgerow: Double Row: 5/m staggered. 5 plants per metre in a staggered double row, with 33 cm between each plant along the row and 40cms between the rows. Dig the planting pit to the

[15] https://germinalamenity.com/wfg8-hedgerows-and-shaded-areas

correct depth - recommend a planting pit no deeper than the container unless you have specific issues with drainage throughout your site.

The width of the planting pit should be a minimum of one and a half times as large as the root-ball/container and up to a maximum of two times as wide, if the soil is very compacted. This means that a root-ball of 40cm wide should be planted in a hole at least 60cm wide.

Use rabbit guards supported by small canes to protect from rabbits and deer browsing. After planting mulch with suitable material that is available, leaf mould or wood chips, but not too deep - up to 50mm.

Topsoil specification for the tree and hedge plantings shall follow BS 3882: 2015. A depth of 300mm topsoil shall be provided, with suitable (loosened) subsoil to provide the remainder of the minimum rooting depth.

4.3.6 Pond enhancements

The pond will be retained and enhanced with additional planting. The pond will be seeded with a variety of submerged and marginal vegetation mix. This will be the germinal WFG9 Wetland and Pond Areas mix[16].

[16] https://germinalamenity.com/wfg9-wetland-and-pond-areas

5. Continued Management

To help ensures the habitats reach and maintain the required condition annual habitat management will be required. Below is a description of the required management that will be carried out on site by the designated contractor.

5.1 Grassland Management

5.1.1 First Year Management

Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds, arising from the soil seed bank. These weeds can look unsightly, but they will offer shelter to the sown seedlings, are great for bugs, and they will die before the year is out. So, resist cutting the annual weeds until mid to late summer, especially if the mixture contains Yellow Rattle, or has been sown with a nurse of cornfield annuals. Then cut, remove, and compost. Early August is a good time. This will reveal the young meadow, which can then be kept short by grazing or mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks.

5.1.2 Annual management following establishment.

- Meadow grassland is not cut or grazed from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut' : cut back with a scythe, petrol strimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site.
- Management should seek to create a varied sward (at least 20% of sward <7 cm and at least 20% > 20 cm).
    - This can be achieved by maintaining a network of mown paths through the sward.
- Scrub within the grassland should be maintained at <5%.
- Non-native species such as laurel and buddleia will be removed from the grassland.

5.2 Tree Management

In the years following planting trees should be monitored to ensure establishment. Watering/ weeding may be required.

Once established the tree guards should be removed.

The trees when established will require little management. They should be allowed to develop a natural canopy. Management regime will encourage micro habitat sites for birds, mammals, and insects e.g., by ensuring presence of deadwood, cavities, or loose bark etc.

5.3 Woodland and Scrub Management

The retained scrub and woodland areas will require annual management. The focus will be to create a varied structure encouraging features such as rides and glades.

Following construction additional trees species could be added to the woodland areas or scrub can be naturally allowed to colonise areas of the woodland. Once any new planting has

established and tree guards removed annual management will include coppicing sections of woodland.

Woodland coppicing is a traditional woodland management technique. It involves cutting trees down to ground and allowing to regrow.

- Cut an angle of 30-45 degrees from the horizontal or trim the stump to this afterwards. It is important that the bark is left intact and tight to the wood[17].
- Leave a stump 10-20cm high. In cases where it has been coppiced before and there is a lot of regrowth it is easier to cut higher than this, where the stems are more separate and the weight is less, and to trim the stump afterwards.

The aim will to be coppice small sections of the scrub and woodland each year on a rotational basis. This will create a mix of structures from newly coppiced open areas which allow greater sunlight to penetrate the woodland floor to denser areas of regrowth.

The areas for annual coppicing will be agreed between the project ecologist and management contractor.

Mature trees will be retained as standards.

Invasive species will be controlled as per section 4.3.4.

5.4 Hedgerow Management

In initial years after establishment; trim all stock down by 30-50% to encourage the plants to bush and trim to same shape the following year to further encourage the plants to bush.

Hand weed around plated trees or use suitable herbicide, until established. Water- only if during very dry spell to help trees establish.

Year 3 onwards just trim to shape. It is recommended that trimming not be conducted on the entire hedgerow each year; trim a different section each year. Hedgerows are best trimmed in February.

The hedgerows will be maintained with an average height of at least 1.5m along its length and an average width of at least 1.5m along its length.

5.5 Pond Management

Once established the pond will likely require very little maintenance. Over autumn and winter any dominant vegetation should be cut back. Leaves and decaying plant matter can also be removed at this time.

Any invasive species should be controlled.

[17] https://www.conservationhandbooks.com/how-coppice-trees/

As part of the woodland coppicing regime the margins of the pond should be targeted to reduce shading to below 50% of the margin.

5.6 Monitoring and review

An appropriately qualified ecologist will annually review management progress and provide direction to the management company undertaking the works. Updated condition assessments, using the criteria in the DEFRA BNG metric, will be undertaken and adjustments in management regimes made as necessary.

6. Appendix

6.1 Appendix 1: Habitat Map



6.2 Appendix 2: Proposed development outline



6.3 Appendix 3: Biodiversity Net Gain Habitats



6.4 Appendix 4: Example of Exclusion sign



6.5 Appendix 5: Legislation

Protected species have protection under national legislation such as the Wildlife and Countryside Act 1981 and European legislation such as the Habitats Directive.

Please note the following:

(1) If there is no record of a particular protected species, this does not signify that that the species is absent from the site in question. It may mean that it has not been recorded, that the site has not been surveyed for this species, or that data relating to its presence has not been made available to us.

(2) The presence of a protected species record does not mean that the species is still present. It means that the species was recorded at that time and place. The implications of the record should be further evaluated, and a survey to establish the status may be required.

(3) The following summary of legislation is designed purely as a basic guide, if any action is to be taken regarding any of the protected species listed, then it is imperative that the full relevant legislation be consulted.

WILDLIFE PROTECTION LEGISLATION IN ENGLAND

Legislation that protects wildlife in England exists at the European and national level.

European Law

The Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979) was aimed at ensuring conservation and protection of all wild plants and animals, increasing cooperation between states, and affording special protection to the most vulnerable or threatened species. It was implemented by the EC Birds Directive (Council Directive 79/409/EEC) and the EC Habitats Directive (Council Directive 92/43/EEC).

The Bonn Convention on Migratory Species of Wild Animals (1979 & 1994) requires the protection of migratory animals. It was implemented by the EC Birds Directive (Council Directive 79/409/EEC) and the EC Habitats Directive (Council Directive 92/43/EEC).

The EC Habitats Directive aims to establish a network of protected areas to maintain the distribution and the abundance of threatened species and habitats. Several species are listed in the annexes.

Annex II lists animals and plants whose conservation requires the designation of Special Areas of Conservation (SACs).

Annex IV lists animals and plants in need of strict protection. For the animals, this prohibits deliberate capture, killing, disturbance (especially during breeding period), destruction or taking of eggs from wild, and destruction or deterioration of breeding sites or resting places. For the

plants, this prohibits deliberate picking, collecting, uprooting, cutting, destruction, and trade in entire plants or parts, at all stages of life.

Annex V lists animals and plants for which taking in the wild may be subject to management measures.

National Law

The Wildlife and Countryside Act 1981 (as amended) is the main source of legal protection for wildlife in England and was strengthened by the Countryside and Rights of Way Act 2000. A statutory five-yearly review of Schedules 5 and 8 (protected wild animals and plants) is undertaken by the relevant authorities. Species protection is provided under Schedules 1, 5, 6 and 8:

Schedule 1 lists bird species that are rare, endangered, declining, or vulnerable. The Schedule is divided into two parts. Part I lists birds which receive special protection; these birds receive additional protection from disturbance at the nest. Part II lists birds that receive the same level of special protection, but only during the breeding season.

Schedule 5 protects animal (other than bird) species from certain actions, according to the sections of the Act under which they are listed:

S9 (1) prohibits the intentional killing, injury or taking. S9 (2) protection is limited to possessing and controlling. S9 (4a) prohibits the damaging, destroying or obstructing access to any place used by the animal for shelter or protection. S9 (4b) prohibits disturbing the animal while it is occupying any structure or place which it uses for shelter or protection. S9(5) prohibits the selling, offering for sale, possessing, or transporting for purpose of sale, or advertising for sale, any live or dead animal, or any part of, or anything derived from such an animal. Species on this Schedule do not appear on the PSI.

Schedule 6 lists animals that may not be killed by certain methods. Even humane trapping for research requires a licence.

Schedule 8 lists plant species for which it is prohibited to intentionally pick, uproot, destroy, trade in, or possess (for the purposes of trade).

Under the Wildlife and Countryside Act, all wild plants in Britain are protected from intentional uprooting by an unauthorised person. Landowners, land occupiers, persons authorised by either of these, or persons authorised in writing by the Local Authority for the area are exempt from this, except for Schedule 8 species.

Conservation Regulations the Conservation of Habitats and Species Regulations 2010 (as amended) transpose the EC Habitats Directive into national law. In addition to enabling the designation of SACs, the regulations also provide species protection:

Schedule 2 protects the listed animals from deliberate capture, killing, disturbance or trading in.

Schedule 4 protects the listed plants from picking, collecting, uprooting, destroying, or trading in.

These actions can be made lawful through the granting of licences by the appropriate authorities. Licences may be granted for several purposes, but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild the population of the species concerned.

Protection of Badgers Act the Protection of the Badgers Act prohibits the killing, injuring, or taking of badgers and damage or interference with a badger sett, unless licensed to do so by a statutory authority.

International and European Obligations

In the UK, species receiving protection under international legislation and agreements are protected through the Wildlife and Countryside Act, so are not shown separately in the BMERC notable species lists. For reference, the relevant categories are shown below.

Bern Convention on the Conservation of European Wildlife and Natural Habitats the Bern Convention aims to ensure the conservation of wild flora and fauna species and their habitats.

• Appendix 1 (strictly protected flora) - Plants for which contracting parties will prohibit deliberate picking, collecting, cutting, or uprooting.

• Appendix 2 (strictly protected fauna) - Animals for which contracting parties will prohibit deliberate capture, possession, killing, damage to or destruction of breeding or resting sites, disturbance or destruction or taking of eggs. Appendix 3 (protected fauna) - Animals for which contracting parties will include closed seasons and regulate their sale, keeping for sale, and transport for sale or offering for sale of live and dead wild animals. (Not included in Notable Species List).

Bonn Convention on Migratory Species the Bonn Convention aims to conserve terrestrial, marine, and avian migratory species throughout their range.

• Appendix 1 (migratory species threatened with extinction) - Species for which contracting parties will strictly protect and endeavour to conserve or restore the places where they live, mitigating obstacles to migration and controlling other factors that might endanger them.

• Appendix 2 (migratory species that need or would benefit from international co-operation) - Species for which contracting parties will be encouraged to conclude global or regional agreements for the conservation and management of individual species or, more often, of a group of species. (Not included in Notable Species List).

The EC Council Directive on the Conservation of Wild Birds the Birds Directive provides a framework for the conservation and management of all wild birds in Europe. As well as designating important sites for birds as Special Protection Areas, birds are generally protected

from deliberate killing or capture and destruction of or damage to their nests or eggs, and deliberate disturbance. Allowances are made for game birds.

UK BAP & notable species

UK Biodiversity Action Plan and Section 41 Species

Biodiversity, or biological diversity, is the whole variety of life on Earth. The Convention on Biological Diversity (CBD) came about as a result of the 1992 Earth Summit. As one of 168 countries to sign up to the CBD, the UK was required to develop a national strategy for the conservation of biodiversity; the UK Biodiversity Action Plan (UKBAP) was born.

The UKBAP is the result of contributions involving a wide range of people and organisations, enabling the identification of species and habitats that are listed as priorities for conservation action. A 2007 review of the UKBAP has resulted in 1149 species and 65 habitats being listed as conservation priorities. For more information see www.ukbap.org.uk.

In addition to the national priorities and targets, action is also being taken at local level. The Essex Biodiversity Project is responsible for implementing the Essex Biodiversity Action Plan, which has 28 priority species and 15 priority habitats currently listed. For more information see www.essexbiodiversity.org.uk.

The UK BAP

(From Explanatory Note by Defra and Natural England on Section 41 of the Natural Environment and Rural Communities

(NERC) Act 2006 - Habitats and Species of Principal Importance in England)

The England Biodiversity List has been developed to meet the requirements of Section 41 of the Natural Environment and Rural Communities Act (2006). This legislation requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity.

The S41 list will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions. In particular:

• Regional Planning Bodies and Local Planning Authorities will use it to identify the species and habitats that should be afforded priority when applying the requirements of National Planning Policy framework (NPPF) and PPS9 Circular to maintain, restore and enhance species and habitats.

• Local Planning Authorities will use it to identify the species and habitats that require specific consideration in dealing with planning and development control, recognising that under NPPF and PPS9 Circular the aim of planning decisions should be to avoid harm to all biodiversity.

• All Public Bodies will use it to identify species or habitats that should be given priority when implementing the NERC Section 40 duty.

Habitats of Principal Importance Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that have been identified as requiring action in the UK Biodiversity Action Plan (UK BAP). They range from habitats such as upland hay meadows to lowland mixed deciduous woodland and from freshwater habitats such as ponds to marine habitats such as subtidal sands and gravels.

Species of Principal Importance There are 943 species of principal importance included on the S41 list. These are the species founding England which have been identified as requiring action under the UK BAP. In addition, the Hen Harrier has also been included on the List because without continued conservation action it is unlikely that the Hen Harrier population will increase from its current very low levels in England.

Relationship with the UK Biodiversity List of Species and Habitats the UK BAP list of priority species and habitats is an important reference source and will be the focus for conservation action across the UK over the next decade. It has been used to draw up the species and habitats of principal importance in England under S41 of the NERC Act.

The revised UK BAP list of priority species and habitats can be downloaded from the UK Biodiversity Website: http://www.ukbap.org.uk/NewPriorityList.aspx

Relationship with the biodiversity duty under Section 40 of the NERC Act There is a general biodiversity duty in the NERC Act (Section 40) which requires every public body in the exercising of its functions to 'have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'.

There is no direct relationship between the Section 41 duty on the Secretary of State to publish the list and promote the taking of steps to conserve the habitats and species on it, and the Section 40 duty on public bodies to have regard to the purpose of conserving biodiversity. Importantly:

(a) Biodiversity, as covered by the Section 40 duty includes all biodiversity and not just the habitats and species of principal importance. However, there is an expectation that public bodies would refer to the S41 list when complying with the section 40 duty.

(b) The duty on the Secretary of State to promote the taking of steps by others is not restricted to public bodies.

Defra guidance for local authorities and public bodies on implementing the biodiversity duty in the NERC Act draws attention to the S41 list, emphasising that local authorities and public bodies have a role to play in ensuring the protection of these species and habitats. Copies of the guidance can be downloaded from:
http://archive.defra.gov.uk/environment/biodiversity/documents/pa-guid-english.pdf