

SLOUGH MULTIFUEL EXTENSION PROJECT

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Extended Phase 1 Habitat Survey Report

SSE Slough Multifuel Extension Project

SSE Slough Multifuel Limited

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Executive Summary

Site Details	<p>The Site is located within the existing Slough Heat and Power Site at 342 Edinburgh Avenue, Slough, SL1 4TU, approximately 2.5 kilometres north-west of Slough Town Centre (grid reference SU 953 814) (the “SHP Site”). The Site is located both to the north and south of Edinburgh Avenue and previously contained impermeable hardstanding and numerous buildings and structures including boiler houses, turbine halls, fuel storage facilities, offices and various other ancillary plant associated within power generation. These decommissioned plant and buildings were cleared in advance of construction work starting on the Consented Development.</p>
Purpose	<p>The extended Phase 1 Habitat survey was undertaken to update the baseline of the Site after works undertaken for the Consented Development and to identify whether there are known or potential ecological receptors that may constraint or influence the Proposed Project.</p>
Scheme Details	<p>The Proposed Project comprises works to increase the efficiency and output of the Consented Development. The Consented Development is described in brief below to put the changes (mostly internal) of the Proposed Project into context, and because the Consented Development forms the future baseline against which the Proposed Project is assessed.</p> <p>Consented Development</p> <p>The Consented Development will occupy an area of approximately 1.9ha of the SHP Site and will comprise a new multifuel generating station with capacity of up to 50MWe that will convert waste derived fuel into low carbon electricity and heat.</p> <p>Proposed Project</p> <p>The Proposed Project comprises works to increase the efficiency and output of the Consented Development. This increase in gross generation capacity will be achieved through a number of physical works that are engineering operations, including the installation of primary and secondary air preheating systems to the boilers to increase the thermal efficiency of the generating station, including heat exchanger bundles, pipework, valves, pipe supports, thermal insulation, instrumentation, cabling and containment, mechanical modifications to the steam turbine inlet control valve to increase the steam capacity and to the turbine control system and distributed control system to allow for an increase in the gross output of the generating station. The majority of these works will be internal and contained within the Consented Development building envelope which will</p>

	<p>remain unchanged; only a small section of the pipe work will be external.</p>
<p>Ecological Features that may be affected by the Scheme</p>	<p>A revised air quality assessment has assessed the impacts of the Proposed Project upon designated sites and ancient woodlands and concluded that the Proposed Project will not result on significant effects on designated sites or ancient woodlands modelled, even when considering the Consented Development.</p> <p>Six buildings were assessed as having low suitability for supporting bat roosts.</p> <p>Habitats apart from hard standing occupy a small proportion of the Site (10%). The Site does provide opportunity for nesting birds and this includes a peregrine falcon nesting box present on-site with alternative nest sites available in the adjacent area. The Site is known to be within a potential peregrine falcon breeding territory.</p> <p>Small patches of wall cotoneaster, an invasive non-native species listed in Schedule 9 of the Wildlife and Countryside Act (as amended), were found within the Site (also recorded in the baseline of the Consented Development) Buddleia, an invasive non-native species though not listed in Schedule 9 of the Wildlife and Countryside Act (as amended), was also recorded. The risk of wall cotoneaster being spread into the wild is very low. Given the biodiversity benefit from wall cotoneaster, it is recommended that it is retained on-site with biosecurity measures being implemented to ensure it is not spread off- or within the Site. If retaining the plants is not feasible, they should be removed in a bio-secure manner.</p>
<p>Recommendations for further survey and assessment</p>	<p>Recommendations for monitoring of peregrine falcon as part of the Consented Development construction have previously been approved as part of planning condition (as detailed within the fauna management plan).</p> <p>No additional survey or assessment is recommended in relation to the Proposed Project.</p>
<p>Recommendations for Mitigation</p>	<p>While no vegetation clearance is expected in connection with the Proposed Project, if required, it should be done outside the main nesting bird season (March and August inclusive) but if it is deemed necessary to remove vegetation within the nesting bird season then pre-commencement survey for nesting birds should be undertaken by an ecologist immediately prior to commencement of works.</p>

Opportunities for Biodiversity Enhancements	A green wall is to be created on site as part of the Consented Development.
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1. Introduction

AECOM was commissioned by the Client, SSE Slough Multifuel Limited (SMF), to carry out a Preliminary Ecological Appraisal Report (PEA) Report (also referred to as an Extended Phase 1 Habitat Survey) as part of the commissioned Environmental Impact Assessment (EIA) for the Slough Multifuel Extension Project (hereafter referred to as the Proposed Project).

The Consented Development, a new multifuel generating station with capacity of up to 50MWe, is currently under construction. The Proposed Project comprises works to increase the efficiency and output of the Consented Development.

1.1 Site Location

The Site for this Proposed Project is located within the existing Slough Heat and Power site at 342 Edinburgh Avenue, Slough, SL1 4TU, (grid reference SU 953 814) approximately 2.5 kilometres (km) north-west of Slough Town Centre (the “SHP Site”). The Site is located both to the north and south of Edinburgh Avenue and previously contained impermeable hardstanding and a number of buildings and structures including boiler houses, turbine halls, fuel storage facilities, offices and various other ancillary plant associated within power generation. These decommissioned plant and buildings were cleared in advance of construction work starting on the Consented Development.

1.2 Consented Development and Proposed Project

Consented Development

A scheme the “Consented Development” was granted planning permission in June 2017 for:

- the demolition of the redundant plant and buildings on the existing Slough Heat and Power (SHP) site, and
- the construction and operation of the new Slough Multifuel Facility with a generation capacity of up to 50MW.

The Consented Development is outlined in the Environmental Impact Assessment Scoping Report¹ as follows *“the Consented Development will occupy an area of approximately 1.9ha of the existing SHP site, most of which currently occupied by decommissioned plant and will comprise a new multifuel generating plant that will convert waste derived fuel into low carbon electricity and heat and will be comprised of an enclosed tipping hall and fuel bunker, up to two furnaces where the WDF will be combusted and boiler unit(s) to raise steam, a turbine hall with a steam turbine to generate electricity, up to two Flue Gas Treatment (FGT) plants to clean the flue gas, and a new stack for discharge of cleaned flue gas (which would replace the existing south stack on the SHP site) or an extension to the existing south stack.*

The maximum height of the consented scheme will be 90 metres above ground level if a replacement stack is required and 48m for the tallest building, which is the boiler house and will include a below ground electrical cable connected to Slough South substation which is located within the SHP site.”

¹ AECOM (2021), Slough Multifuel Extension Project Environmental Impact Assessment Scoping Report

Proposed Project

The Proposed Project comprises works to increase the efficiency and output of the Consented Development. This increase in gross generation capacity will be achieved through a number of physical works that are engineering operations; including the installation of primary and secondary air preheating systems to the boilers to increase the thermal efficiency of the generating station, including heat exchanger bundles, pipework, valves, pipe supports, thermal insulation, instrumentation, cabling and containment, mechanical modifications to the steam turbine inlet control valve to increase the steam capacity and to the turbine control system and distributed control system to allow for an increase in the gross output of the generating station. The majority of these works will be internal and contained within the Consented Development building envelope which will remain unchanged; only a small section of the pipe work will be external.

1.3 Purpose of Preliminary Ecological Appraisal

This PEA Report was commissioned to identify whether there are known or potential ecological receptors (defined as nature conservation designations and protected species or notable species, invasive non-native species or habitats) that may constrain or influence the design and implementation of the Proposed Project. The approach applied when undertaking this PEA Report accords with the Guidelines for Preliminary Ecological Appraisal, Second Edition, published by the Chartered Institute of Ecology and Ecological Management (CIEEM, 2017²).

In order to deliver the PEA Report, a desk study was undertaken on 7th February 2022 to obtain records of designated sites, notable habitats and protected and notable species within 2km of the Site (the area covered by the desk study is hereafter referred to as the Study Area). An Extended Phase 1 Habitat survey of accessible land adjacent to the Site (the area covered by the survey is hereafter referred to as the Survey Area) was undertaken on 2nd February 2022. These were both undertaken by a suitably qualified ecologist.

The purpose of the PEA Report was to:

- identify and categorise all habitats present within the Site and any areas immediately outside of the Site where there may be potential for direct or indirect effects (the zone of influence);
- carry out an appraisal of the potential of the habitats recorded to support protected or notable species of fauna and flora;
- provide advice on any potential ecological constraints and opportunities within the Site and its zone of influence, including the identification (where relevant) of any requirements for follow-up habitat and species surveys and/or requirements for ecological mitigation; and
- provide a map showing the location of the identified ecological receptors or relevance.

The purpose of this PEA Report is to provide high level appraisal of the ecological potential and opportunities associated with the Proposed Project. The report identifies the scope of further ecological surveys (where necessary) that would be required. High level recommendations are made to inform options for the avoidance, mitigation or

² CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

compensation of the potential impacts of the Proposed Project (where known) on the identified ecological receptors, and of potential enhancements to biodiversity and ecosystem services.

1.4 Previous Ecological Surveys

Field surveys were undertaken to provide specific site-based evidence, including assessments to inform the original application for the Consented Development during 2013, with update surveys carried out during 2018 and 2019, primarily to inform the demolition (Table 1). Following these surveys, a number of protected species surveys were undertaken across spring 2018 to summer 2020 which established a robust baseline for ecological impact assessment (Table 1). These have since been updated with an extended Phase 1 Habitat survey undertaken during February 2022.

A summary of the ecology surveys and reports prepared for the Proposed Project are provided in Table 1.

Table 1: Summary of previous ecological surveys

Survey	Survey Dates	Scope of Surveys	Method
Phase 1 Habitat survey	August 2011 and updated in June 2013	Extended Phase 1 Habitat survey (including scoping for protected species)	Joint Nature Conservation Committee (JNCC) (2010)
Protected Species Appraisal	February 2022	Extended Phase 1 Habitat survey (including scoping for protected species) and Habitat Condition Assessment	Preliminary Ecological Appraisal in accordance with CIEEM, 2017 ³ Habitat Condition assessment in accordance with Natural England, 2019 ⁴
Breeding Bird and Peregrine Falcon Survey ⁵	March to July 2018	Peregrine falcon survey Common birds census	Common bird census in accordance with Marchant, J.H. (1983 ⁶). Peregrine falcon survey in accordance with Hardy et al. (2014 ⁷).

³ CIEEM (2017). Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

⁴ Natural England (2019). Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide (2019)

⁵ URS (2012). Slough Heat and Power Multifuel Facility. Breeding Bird and Peregrine Survey Report

⁶ Marchant, J.H. (1983). BTO Common Birds Census Instructions. British Trust for Ornithology, Tring.

⁷ Hardey, J., Crick, H., Wernham, C., Riley, H., Etheridge, B. & Thompson, D. (2014). Raptors: A Field Guide for Surveys and Monitoring. 3rd Edition. The Stationery Office, London.

Survey	Survey Dates	Scope of Surveys	Method
Peregrine Falcon Monitoring	February to July 2019	Peregrine falcon survey	Peregrine falcon survey in accordance with Hardy et al. (2014).
Peregrine Falcon Monitoring ⁸	March to July 2021	Peregrine falcon survey	Peregrine falcon survey in accordance with Hardy et al. (2014).
Bat Emergence Survey ⁹	May 2018	Roosting bat presence / absence survey	Emergence surveys of structures in accordance with Collins, 2016 ¹⁰ .

1.5 Quality Assurance

All AECOM ecologists follow the Chartered Institute of Ecology and Environmental Management (CIEEM) code of professional conduct when undertaking ecological work and many of them are Full Members. They are appropriately qualified and conduct their work with all reasonable skill and care

2. Ecological Baseline, Constraints and Recommendations

2.1 Designated Sites

2.1.1 Sites Statutorily Designated for their Biodiversity Value

A desk-based search showed that there are 11 sites statutorily designated for nature conservation designation within the desk study area (internationally designated sites within 15km and nationally designated sites within 5km). These are described in Table 2.

Table 2: Statutory sites within the Search Area

Designation	Reason for Designation	Relationship to Site
Internationally Designated Sites within 10 km		
Burnham Beeches (SAC)	An example of Atlantic acidophilous beech forests in central southern England. It is a 383ha area of former beech wood-pasture with many old pollards and associated beech (<i>Fagus</i>	2.7km north

⁸ BSG Ecology (2021). Slough Multifuel CHP Project. Peregrine Monitoring Report 2021

⁹ AECOM (2018). SSE Slough Bat survey Report

¹⁰ Collins, J. (editor) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). Bat Conservation Trust: London

Designation	Reason for Designation	Relationship to Site
	<i>sylvatica</i>) and oaks (species of <i>Quercus</i>).	
Windsor Forest & Great Park (SAC)	An old acidophilous oak woods with the largest number of veteran oaks in Britain, a consequence of its management as wood-pasture. It is potential international importance for its saproxylic invertebrate fauna including Violet click beetle (<i>Limoniscus violaceus</i>) and is also designated its beech forests. Area; 1,685ha.	5.9km south
Chiltern Beechwoods (SAC)	A tract of Asperulo-Fagetum beech forests. The woodland is an important part of a grassland-scrub-woodland mosaic. A distinctive feature in the woodland flora is the occurrence of the rare coralroot (<i>Cardamine bulbifera</i>) and the site is also important for calcareous grasslands, orchids and stag beetle. Area: 1,283ha	9.5km north-west
South West London Waterbodies (SPA/RAMSAR)	A number of reservoirs and former gravel pits in the Thames Valley adjacent to Heathrow Airport between Windsor and Hampton Court which support internationally important numbers of Gadwall (<i>Anas strepera</i>) and Shoveler (<i>Anas clypeata</i>). Area: 828ha.	7.6km south-east
Nationally Designated Sites within 5 km		
Burnham Beeches SSSI	A 374.6ha area of the Burnham Plateau where Thames gravels and underlying Reading Beds give rise to acid soils supporting mature and developing woodland, old coppice, scrub, wet heath, and sphagnum bog.	2.7km north
Stoke Common SSSI	An 83.18ha heathland with pockets of birch, pine and mixed woodland. There are several ponds on the common which support bog bush cricket (<i>Metrioptera brachyptera</i>).	4.1km north-east
South Lodge Pit SSSI	South Lodge Pit exposes 0.53ha of the only known British example of a late Santonian-early Campanian chalk phosphorite (calcium phosphate)	4.6km west

Designation	Reason for Designation	Relationship to Site
	deposit. Designated for geological rather than ecological importance	
Littleworth Common SSSI	Acid heathland and birch-oak woodland with small areas of wet flushes and ponds supporting communities which are both rare and declining in lowland Britain. Littleworth Common is also one of the last recorded locations for the nationally rare starfruit (<i>Damasonium alisma</i>). Area: 15.84ha	4.7km north
Bray Pennyroyal Field SSSI	This site comprises a single 3.43ha field adjoining the River Thames to the south-east of Bray and represents the sole Berkshire locality for the nationally rare pennyroyal (<i>Mentha pulegium</i>). Lying in the Thames floodplain, the site overlies an infilled gravel pit and is characterised by a series of shallow, seasonally inundated depressions to which the pennyroyal colonies are confined.	4.7km south-west
Burnham Beeches (NNR)	An area of beech and oak wood pasture with pockets of heathland and sphagnum bog, located very close to large centres of urban population.	2.7km north-west
Haymill Valley (LNR)	An area of 8.67ha. It comprises an area of marshy wet woodland, reedbed, streams and open water. The site is described as a valuable haven for wildlife within Slough.	0.9km west
Cocksherd Wood (LNR)	This 4ha ancient woodland, contains beech (<i>Fagus sylvatica</i>) woodland with a sparse shrub layer and ground flora running along the chalky northern edge.	1.4km north-west

2.1.2 Sites Non-statutorily Designated for their Biodiversity Value

A desk-based search showed that there were six non-statutory sites designated for nature conservation identified within 2km of the Site. These sites have been designated as Local Wildlife Sites (LWS) for their biodiversity value at a local level and are known to have supporting value to a wide variety of protected and ecologically important species and, or habitats. These are described in Table 3.

Table 3: Non-statutory sites within 2 km

Designation	Reason for Designation	Relationship to the Site
Haymill Valley (LWS)	Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT) nature reserve containing mixed woodland with bluebells and reedbeds	0.8km west
Bray to Eton Pits & Meadows (BOA)	Includes a variety of sites within lowland meadow habitat including Bray Meadows SSSI, Bray Pennyroyal Field and Sutherland Grange LNR. Near Eton there are a number of meadows with remnants of lowland meadow habitat.	0.8km west
Haymill Valley (BOA)	Contains chalk grassland. Extensive areas along banks throughout the area and lowland mixed deciduous woodland and beech woodland.	0.9km north-west
Boundary Copse Woodland Trust Reserve (Woodland Trust Reserve)	A reserve containing mixed woodland with bluebells and reedbeds	1.3km north-east
Cocksherd Wood (LWS)	Ancient woodland supporting a wide variety of flora and fauna known locally as Bluebell Wood. Key plant species are field maple, birch, hazel, hawthorn, beech, ash, holly, honeysuckle, wild cherry, blackthorn, oak and bluebells.	1.4km north-west
Railway Triangle (off Stranraer Gardens) (LWS)	Grassland and scrub adjacent to the railway tracks surrounded by residential properties.	2km east

2.1.3 Constraints and Recommendations

Three Special Areas of Conservation (SAC) were located within 15km of the Proposed Project, Burnham Beeches SAC, Windsor Forest and Great Park SAC and Chilterns Beechwoods SAC. There will be no significant impacts on these designated sites due to distances from the Site, the lack of any pathways and the nature of the Proposed Project (i.e., non-residential).

Air quality impacts (increased sulphur and nitrogen deposition) are possible as a result of the Proposed Project, which could cause nutrient enrichment and thus reduce the habitat quality of habitats (in the case of the SACs woodland). While the 2012

Environmental Statement¹¹ assessed the previous Consented Development and found air quality effects to be non-significant, a revised air quality assessment has been completed¹² to assess the impacts of the Proposed Project due to changes in the design and assessment methodologies since that time. Five pollutants were modelled: oxides of nitrogen (NOx), ammonia, hydrogen fluoride, nitrogen deposition and acid deposition. The revised air quality assessment and the No Significant Effects Report¹³ have found that the Proposed Project (even using the 10.5 MJ/kg worst-case scenario) will not result in a likely significant air pollution effect on any modelled designated sites either alone or in combination with other projects and plans.

The South West London Waterbodies SPA and Ramsar sites are not sensitive to air emissions (being phosphate limited aquatic habitats) and will not be impacted by air quality effects.

There will be no significant negative impacts on the designated sites listed in Table 2 and Table 3 as result of the Proposed Project.

2.2 Notable Habitats

2.2.1 Desk Study

Two blocks of ancient woodland listed on the Ancient Woodland Inventory (AWI) were identified within the 2km desk study area.

Five priority habitats were identified as requiring conservation under the UK Biodiversity Action Plan within the 2km study area:

- 30 blocks of deciduous woodland listed on the National Forest Inventory 2014¹⁴;
- three areas of wood pasture and parkland;
- two areas of traditional orchard as classified by the Traditional Orchards HAP Inventory 2020;
- one area of reedbed; and
- one area coastal floodplain and grazing marsh.

None of these areas are directly connected to the Site.

Table 4 shows these habitats in ascending order distance away from the Site.

Table 4: Notable Habitats within 2km of the Site

Habitat	Description	Relationship to the Site
Ancient Woodland		
Ancient Woodland (0.6ha)	Ancient & Semi-Natural Woodland	1.8km north
Ancient Woodland (1.1ha)	Ancient & Semi-Natural Woodland	2km north-west

¹¹ URS (2012) Slough Heat and Power Multifuel Facility Environmental Statement.

¹² AECOM (2022). SSE Slough Multifuel. ES Chapter 8 Air Quality

¹³ AECOM (2022). SSE Slough Multifuel. No Significant Effects Report (Appendix 10B of the Environmental Statement).

¹⁴ <https://www.forestryresearch.gov.uk/tools-and-resources/national-forest-inventory/about-the-nfi/>

Habitat	Description	Relationship to the Site
Priority Habitats		
Deciduous Woodland (6.2ha)	National Forest Inventory 2014	0.8km west
Reedbed (0.6ha)	Biodiversity Action Plan Priority Habitats	0.9km west
Deciduous Woodland (0.6ha)	National Forest Inventory 2014	1km north-west
Deciduous Woodland (0.2ha)	National Forest Inventory 2014	1.1km north-east
Deciduous Woodland (1.2ha)	National Forest Inventory 2014	1.2km north
Deciduous Woodland (0.8ha)	National Forest Inventory 2014	1.2km north-east
Deciduous Woodland (1.2ha)	National Forest Inventory 2014	1.2km north-east
Deciduous Woodland (1.7ha)	National Forest Inventory 2014	1.3km north-west
Deciduous Woodland (4.7ha)	National Forest Inventory 2014	1.3km north-west
Deciduous Woodland (1.5ha)	National Forest Inventory 2014	1.3km north-east
Deciduous Woodland (7ha)	National Forest Inventory 2014	1.4km north-east
Deciduous Woodland (0.2ha)	National Forest Inventory 2014	1.4km south-east
Deciduous Woodland (0.7ha)	National Forest Inventory 2014	1.4km south
Deciduous Woodland (3.7ha)	National Forest Inventory 2014	1.5km north-west
Woodpasture and Parkland	HAP Inventory 2020	1.5km north-west
Deciduous Woodland (2.8ha)	National Forest Inventory 2014	1.5km north-east
Deciduous Woodland (0.5ha)	National Forest Inventory 2014	1.5km north
Deciduous Woodland (0.7ha)	National Forest Inventory 2014	1.5km north
Deciduous Woodland (0.4ha)	National Forest Inventory 2014	1.5km south-east

Habitat	Description	Relationship to the Site
Deciduous Woodland (2.1ha)	National Forest Inventory 2014	1.6km north
Deciduous Woodland (0.2ha)	National Forest Inventory 2014	1.6km north
Deciduous Woodland (0.4ha)	National Forest Inventory 2014	1.6km south-east
Deciduous Woodland (0.3ha)	National Forest Inventory 2014	1.6km south-east
Deciduous Woodland (0.3ha)	National Forest Inventory 2014	1.7km north-west
Traditional Orchard (0.2ha)	HAP Inventory 2020	1.7km north-west
Deciduous Woodland (3.3ha)	National Forest Inventory 2014	1.7km north-west
Deciduous Woodland (0.5ha)	National Forest Inventory 2014	1.7km north-east
Woodpasture and Parkland	HAP Inventory 2020	1.7km north-east
Deciduous Woodland (3.9ha)	National Forest Inventory 2014	1.8km north-east
Deciduous Woodland (1.5ha)	National Forest Inventory 2014	1.8km south-west
Coastal Floodplain and Grazing Marsh (7.0ha)	HAP Inventory 2020	1.8km south
Traditional Orchard (1.4ha)	HAP Inventory 2020	1.8km north
Deciduous Woodland (0.4ha)	National Forest Inventory 2014	1.9km north
Deciduous Woodland (0.9ha)	National Forest Inventory 2014	1.9km south
Deciduous Woodland (0.3ha)	National Forest Inventory 2014	1.9km west
Woodpasture and Parkland	BAP	1.9 km west
Deciduous Woodland (1.2ha)	National Forest Inventory 2014	2km north

2.2.2 Field Survey

The habitats recorded, their description, extent and distribution are shown in Table 5 and Figure 1 (Appendix A of this technical appendix). The areas given are approximate only. Illustrative photos of the habitats are in Appendix D of this technical appendix.

Table 5: Habitats present, in descending order of area occupied

Habitat	Brief Description	Area (ha)	% of Site	Photo number (see Appendix D)
Hardstanding	Access roads, car parks and footpaths.	0.22	8%	-
Buildings	Nine buildings are present on site, three on the area to the north of Edinburgh Avenue and six on the area to the south.	2.53	90%	-
Introduced Shrubs	Two small areas of introduced shrubs including cotoneaster.	0.03	1%	Photo 1 and 2
Hedgerow with Trees	Ornamental species poor beech hedgerow with ash trees.	0.01	0.3%	Photo 4
Ephemeral Vegetation	Small area of low-growing ephemeral vegetation comprising of ragwort and black horehound.	0.01	0.3%	-
Poor Semi-improved Grassland	Patch of amenity grass composed mainly perennial rye grass.	0.02	0.4%	Photo 3

These habitats are described in greater detail below.

Buildings and Hardstanding

The Site is predominantly hard standing (90% of the area of the Site) as site preparation is currently being undertaken for the Consented Development. Nine buildings are present on Site, three on the area to the north of Edinburgh Avenue, including a 49m tall cooling tower and six on the area to the south, including Boiler 17 plant and equipment, office, switch rooms, turbine hall and fuel shed.

Introduced Shrubs

Several small areas of introduced shrubs including bay laurel (*Laurus nobilis*), berberis, holly (*Ilex aquifolium*) and snowberry (*Symphoricarpos albus*) are located to the north and east of the Site. Two lines of managed ornamental shrub 2m in height run parallel to the both the north and south of Edinburgh Avenue to the south of the cooling tower. A small patch of wall cotoneaster can be found to the south-east of the cooling tower directly adjacent to the north of Edinburgh Avenue and two blocks of

cotoneaster can be found in the north-east corner of the Site, surrounding the car park, and also includes three cherry (*Prunus* species) trees.

Species poor Hedgerow with Trees

A planted ornamental, species poor hedgerow with trees can be found bordering a car park in the south of the Site, predominantly made up of beech (*Fagus sylvatica*) with ash trees.

Ephemeral Vegetation

There was a strip of low-growing ephemeral vegetation adjacent to the fence comprising of ragwort (*Jacobaea vulgaris*) and black horehound (*Ballota nigra*), with small area of bramble stems. A 3m² stand of buddleia (*Buddleja davidii*) was also present.

Poor Semi-improved Grassland

A patch of grassland composed of mainly perennial rye grass (*Lolium perenne*) yarrow (*Achillea millefolium*) and daisy (*Bellis perennis*), with a patch of sweet violet (*Viola odorata*) 1m² to the eastern end. Buddleia and berberis (a species of *Berberis*) were present roughly evenly spaced along the fence.

2.2.3 Constraints and Recommendations

It is not expected that any further removal of the habitats on Site will be taking place in connection with the Proposed Project. Infill planting is expected as part of the landscape management plan secured in connection with the Consented Development. If small areas of shrub and hedgerow are to be removed as part of the vegetation clearance in the Proposed Project, they should be replaced with vegetation that provides as similar a biodiversity resource as is feasible to sustain local biodiversity. This could include native and near-native species.

As per designated sites, air quality impacts (increased sulphur and nitrogen deposition) were assessed as possible as a result of the Proposed Project, in particular for ancient woodland sites which would also indicate any potential for air quality impacts on other notable habitats. This was investigated through a revised air quality assessment¹⁵ and the No Significant Effects Report¹⁶ (as per designated sites) with no impact found as a result.

2.3 Protected and Notable Species

2.3.1 Bats

2.3.1.1 Desk Study

A desk study returned records of four species of bat within 2km of the Site within the last 10 years: five common pipistrelle (*Pipistrellus pipistrellus*), one soprano pipistrelle (*Pipistrellus pygmaeus*), four noctule (*Nyctalus noctule*) and two unidentified *Myotis* species.

One record of common pipistrelle from was for a roost 1km east of the Site, all other records were sightings only. There are no granted European Protected Species Mitigation Licences for bats within 2km of the Site.

¹⁵ AECOM (2022). SSE Slough Multifuel. ES Chapter 8 Air Quality

¹⁶ AECOM (2022). SSE Slough Multifuel. No Significant Effects Report (Appendix 10B of the Environmental Statement).

2.3.1.2 Field Survey

Two suitably qualified ecologists from AECOM visited the Site on the 2nd February 2022 and searched for potential roosting features for bats in the buildings and trees within and adjacent to the Site. The methods for carrying out potential roost assessment are detailed in Table 7. Descriptions of features suitable for bats are summarised in Table 6. The locations of the buildings referenced in Table 6 in context of the Proposed Project are provided in Plate 1 and 2.

Table 6 and Table 7 summarises Site suitability for roosting bats and roost types.

The locations of the buildings referenced in Table 6 in context of the Proposed Project are provided in Plate 1 and 2.

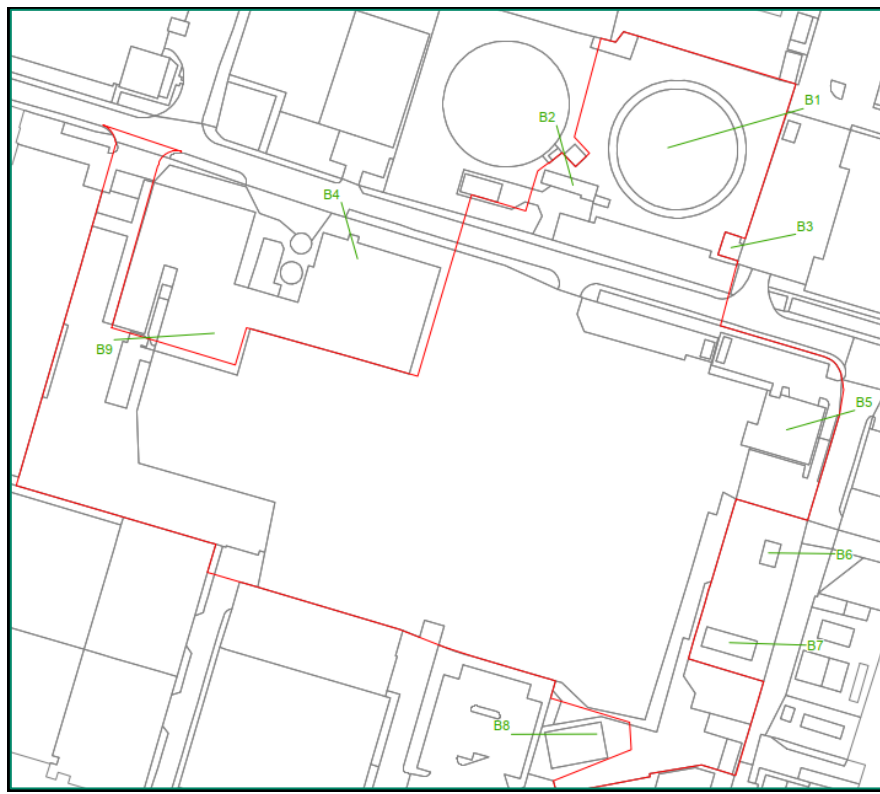
Table 6: Summary of Potential Roost Features (PRFs) at the Site

Building ID	PRF ID	PRF description	Notes	Photo
B1	F001	Ventilation gaps in the concrete structure	Gaps of unknown depth. Likely draughty.	Photo 1
	F002	Gap in the interior of cooling tower	Gaps where supports join the interior wall. Draughty.	Photo 2
B2	F003	Gaps allowing entry to interior	Gap where iron girder enters the building. Missing slots in door frame. Building looks disused.	Photo 3
	F004	Gap in mortar	Gap in mortar at roof height. Shallow.	
B3	F005	Gap under wooden bargeboard	Likely shallow gap. Building in use.	Photo 4
B4	F006	Gaps in windows	Gap behind plywood board fixed to window, potentially leading inside. Facing an active construction site.	Photo 5
B5	F007	Gap in brickwork	Shallow regular gaps in brickwork, lit by security lights directly above.	Photo 6
B6	-	-	No PRFs recorded	
B7	F008	Gap in lifted roof covering	Gap in south elevation of building, 1 m above downward-facing security light.	Photo 7
B9	-	-	No PRFs recorded	Photo 8

Plate 1: Building labels as referenced within Table 6 (Image from 2020, survey details 2022) The locations of the buildings referenced in Table 6 in context of the Proposed Project are provided in Plate 1 and 2.



Plate 2: Building labels as referenced within Table 6 The locations of the buildings referenced in Table 6 in context of the Proposed Project are provided in Plate 1 and 2.



According to good practice¹⁷ each building was categorised for its suitability to support roosting bats and their roost types in Table 7.

Table 7: Building Suitability for Roosting Bats and Roost Types

Building number	Roost Type			Roost Suitability	Notes
	Crevice Dwelling / Summer Roost	Void Dwelling / Maternity Roost	Winter Hibernation Roost		
B1	Yes	X	X	Low	Low suitability for crevice dwelling / summer roosting bats due to large size of structure and opportunities for small cracks in the exterior and interior. Relatively undisturbed and lacks external lighting.
B2	Yes	X	X	Low	Opportunities for small numbers of day-roosting bats to enter building through gaps. Interior conditions unknown. Relatively

¹⁷ Collins, J. (editor) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). Bat Conservation Trust: London

Building number	Roost Type			Roost Suitability	Notes
	Crevice Dwelling / Summer Roost	Void Dwelling / Maternity Roost	Winter Hibernation Roost		
					undisturbed and lacks external lighting. Unlikely to contain suitable conditions for maternity/hibernation roost types.
B3	Yes	X	X	Low	Single feature on building suitable for small roost. No external lighting on the western elevation where gap exists.
B4	Yes	X	X	Low	Multiple gaps on large disused building, potentially leading to interior. High amount of disturbance and potentially marked for demolition. Lacks external lighting. Assessed as directly adjacent to Site. Potentially contains suitable conditions for maternity/hibernation roost types. Known however to be subject to recent refurbishment works and so unlikely to retain internal suitability.
B5	Yes	X	X	Negligible	Feature lit by external security lighting, therefore unsuitable
B7	Yes	X	X	Negligible	Feature lit by external security lighting, therefore unsuitable

Table 8: Photographs of Potential Roost Features



Photo 1. Ventilation gaps in concrete (F001) in B1

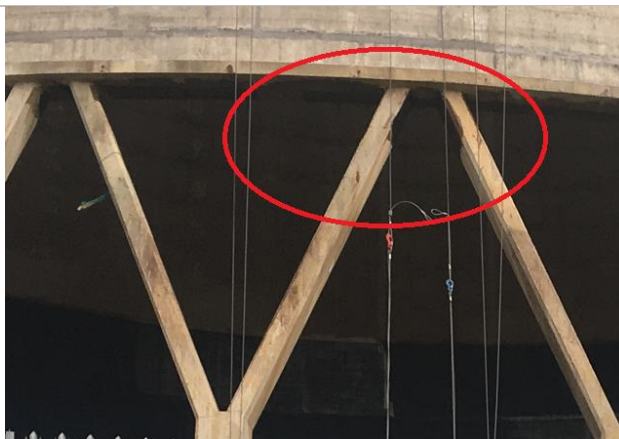


Photo 2. Gap between supports and wall (F002) in B1

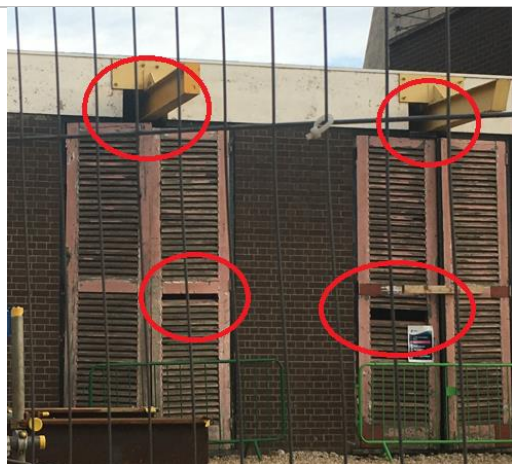


Photo 3. Gaps into interior (F003) in B2



Photo 4. Gap in under bargeboard (F005) in B3



Photo 5. Gap behind plywood (F006) in B4



Photo 6. Shallow gaps in brickwork (F007) in B5



Photo 7. B7 with hipped metal roof covering (F008)



Photo 8. B9 under demolition/refurbishment

2.3.2 Constraints and Recommendations

Four buildings (B1, B2, B3, B4) have low suitability for summer roosting bats and one building (B4) has low suitability for void-dwelling bats and bats hibernating in the winter.

Should further demolition (or refurbishment) be required which may impact any of the PRFs present, then it is recommended that a single dusk or dawn emergence/re-entry survey is completed on low buildings as required by best practice guidelines¹⁸ to either confirm the likely absence of roosting bats or confirm the requirement for a European Protected Species Mitigation Licence (EPSML).

No further demolition or refurbishment of buildings is however expected as part of the Proposed Project, and therefore there is no need for bat surveys on Buildings 1-4 as no direct impact to potential roost features are expected.

2.3.3 Birds

2.3.3.1 Desk Study

Records of 23 Schedule 1 birds and notable birds (i.e., red/amber list as Birds of Conservation Concern) within 2km of the Site were returned from the desk study. Only two of these species were Schedule 1 listed species and relevant to an urban site in a breeding context: peregrine falcon (*Falco peregrinus*) and red kite (*Milvus milvus*).

2.3.3.2 Field Survey

The buildings, trees and areas of introduced shrubs offer suitable habitat to support nesting birds, along with the purpose-built peregrine falcon nest box (understood to be installed by SSE in 2017¹⁹) which is located on one of the buildings present on Site (the north-west corner of the Site). Previous surveys^{20,21} on the Site identified the

¹⁸ Collins, J. (editor) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). Bat Conservation Trust: London

¹⁹ AECOM (2018). SSE Slough: Peregrine Falcon Enhancement Compliance Note

²⁰ URS (2012) Slough Heat and Power Multifuel Facility. Breeding Bird and Peregrine Survey Report

²¹ BSG Ecology (2021). Slough Multifuel CHP Project. Peregrine Monitoring Report 2021

presence of a pair of peregrine falcons (*Falco peregrinus*) and showed that the Site forms part of their breeding territory.

One cherry tree on the Site had a bird nest in its branches, but no recent bird activity was observed in the tree nor on any of the buildings or trees on-site, although visibility of the flat roofs on-site was limited.

2.3.3.3 Constraints and Recommendations

Buildings, trees, scrub and introduced shrubs have potential to support nesting bird species. Birds and their nests are protected by the Wildlife and Countryside Act 1981 (as amended). All demolition work for the Proposed Project is believed to have been completed prior to the production of this PEA Report as part of the works for the Consented Development, and no further demolition is understood to be required. Therefore, there is limited potential for nesting sites within the Site, however there is potential for disturbance to nests outside the Site (through indirect construction noise, vibration, and human disturbance, though this would be similar to existing Site conditions).

While further Site clearance works are not expected in connection with the Proposed Project as these works have already been completed for the Consented Development, it is recommended that if any further site clearance if required is undertaken (where possible) outside of the period that bird species are likely to be breeding. Although there is no legally defined breeding season, it is widely accepted that removal of suitable habitat should be avoided between March and September inclusive. If the Site is to be cleared between March and September inclusive, an ecologist will be required to confirm the absence of active bird nests immediately prior to works commencing.

If a nest is discovered, clearance or other construction works should be stopped immediately in the vicinity within an exclusion zone, generally within 5m of the nest, to be determined by the supervising ecologist. The exclusion zone will be fenced with high visibility tape. The nest will subsequently be monitored, typically on a weekly basis, by a suitably qualified person. Once it is confirmed that all fledglings have flown and that no other nests are in use within the exclusion zone, the tree can be felled.

Note that mitigation for the potential presence of peregrine falcon nesting within or adjacent to Site has been covered by previous mitigation strategies²² and a fauna management plan²³ produced for the previously Consented Development.

The existing fauna management plan contains the overarching mitigation principles as follows:

- *“As the construction area has been completely cleared, the potential for future nesting sites within this area has been removed. However, limited potential exists for disturbance to nests outside the construction area.*
- *Given the demolition activity over the last 12 months, it is clear that existing plant, machinery and human activity did not constrain previous peregrine activity (i.e., the birds appear to be already acclimatised to this activity either exhibiting reduced or no behavioural response).*
- *It is recognised that some construction activity, such as excessive noise, light or visual disturbance by workers or machinery especially at height near an active nest does have the potential for disturbance.*

²² AECOM (2018). SSE Slough Peregrine Falcon Mitigation Strategy

²³ SSE Slough Multifuel (2019) Submission of Details to Discharge Condition 18 – Fauna Management Plan

- *A suitably qualified ecologist will be appointed prior to construction work commencing;*
- *An inspection programme to monitor the presence and activity of peregrine falcons in the vicinity of the Site will be developed and undertaken by the Site ecologist. This inspection programme will include year-round visits with those visits increasing in frequency during the period when the birds are likely to have a high or medium sensitivity to disturbance. Visits will also be undertaken prior to commencing construction works in a new area;*
- *All construction staff shall be trained to identify peregrine falcons through the induction process. Any sightings and any potential nest sites (and evidence of any other legally protected fauna) will be reported to the Site ecologist;*
- *Activities with the potential to cause disturbance will be minimised or mitigated where possible to reduce disturbance on any roosting or foraging peregrine falcons;*
- *Activities with the potential to cause significant disturbance shall be scheduled to avoid the time of year when birds have a high or medium sensitivity to disturbance where possible, although these may be undertaken during these periods if there is no evidence of nesting activities or if they can be suitably mitigated to avoid significant disturbance. These activities and any proposed mitigation would be discussed and agreed with the Site ecologist in advance; and*
- *spill from Site lighting shall be minimised and directed onto the Site to reduce the potential for disturbance during the hours of darkness.”*

As a continuously operational facility, it is recognised in these previous reports that peregrines utilising the Site are already habituated to ongoing human and plan activities including previous demolition and ongoing construction. A recent report by BSG²⁴ confirms the continued presence of peregrine within and adjacent to Site during the most recent 2021 breeding season.

2.3.4 Invasive Species

2.3.4.1 Desk Study

Three invasive non-native species were recorded within 2km of the Site: Himalayan (Indian balsam (*Impatiens glandulifera*), large-flowered waterweed (*Egeria densa*) and least duckweed (*Lemna minuta*). Himalayan balsam is a riparian plant, usually of wet soils and the other two are aquatic plants. As there is no wet ground or aquatic habitat on or close to the Site, these species are not relevant to the assessment.

2.3.4.2 Field Survey

One invasive non-native plant species, as listed on Schedule 9 of the Wildlife and Countryside Act (as amended), wall cotoneaster (*Cotoneaster horizontalis*), was recorded in two areas within the Site. The same finding was made during the surveys carried out prior to the Consented Development.

2.3.4.3 Invasive Species

The risk of wall cotoneaster present on the Site being spread to the wild due to the Proposed Project is very low. In contrast, this species provides a source of pollen and nectar to insects and later in the year a source of food for birds in the form of berries. Wall cotoneaster can also be used by birds as cover for shelter and roosting and possibly nesting.

²⁴ BSG Ecology (2021). Slough Multifuel CHP Project. Peregrine Monitoring Report 2021

On this basis, it is recommended that biosecurity measures are taken to ensure that the plant is not spread beyond the Site by human activity by demarcating the patches of wall cotoneaster and preventing personnel and vehicles and other plant from tracking through these patches with the risk that seeds could be picked up and moved off site.

Likewise, measures are recommended to ensure that footwear, implements and plant being brought onto the Site are clean to ensure that no invasive non-native plant species are brought onto the Site. For example, it is recognised that disturbance such as demolition and construction provides optimal opportunities for plants like Japanese knotweed (*Reynoutria japonica*) to become established.

If preventing the spread of wall cotoneaster off the Site is impractical, e.g., these patches will need to be cleared of vegetation, then it is recommended that the cotoneaster is cut to stump with hand tools before having its root ball excavated to ensure that no further regrowth occurs.

If controlled chemically, a single application of herbicide should be injected into the main stem in mid-summer (late June / early August) or alternatively the cotoneaster should be cut down to a stump and the stump treated with herbicide. A follow up visit in the following year should be made to check for any regrowth around the Site, with follow-up applications of herbicide or manual removal carried out if necessary.

3. Biodiversity Accounting

The habitat condition assessment to inform calculation of future baseline biodiversity units of the Site were assessed in accordance with Defra Metric 3.1²⁵.

Note that habitat areas and resulting biodiversity unit scores will be calculated if a full BNG assessment is required and a quantum for habitats to be either temporarily or permanently impacted will be required for the Proposed Project. BNG is not currently a legal requirement for NSIPs under the Environment Act 2021 for the Proposed Project.

Table 9: Summary of Habitat Condition Assessment Results

Phase 1 habitat classification	UK Habitat Classification	Distinctiveness	Assessment Justification	Condition
Hardstanding	Urban – developed land, sealed surface	Very Low / N/A	N/A	N/A - Other
Buildings	Urban – developed land, sealed surface	Very Low / N/A	N/A	N/A - Other
Introduced Shrub	Urban – Introduced Shrub	Low	Lacks diversity or vegetation structure to meet moderate	Poor
Hedgerow with Trees	Hedgerow – ornamental non-native	V.Low	Predominantly consist of beech	Low

²⁵ Natural England Joint Publication JP039 (April 2022), *The Biodiversity Metric 3.1 auditing and accounting for biodiversity Technical Supplement*

Phase 1 habitat classification	UK Habitat Classification	Distinctiveness	Assessment Justification	Condition
			trees but default score is poor	
Ephemeral Vegetation	Sparsely vegetated land – ruderal / ephemeral	Low	Includes non-native invasive species and lacks species diversity	Poor
Poor Semi-improved Grassland	Grassland - modified	Low	Passes 4 of 7 of assessment criteria due to lack of scrub and damage but generally lacks species diversity	Moderate

4. Opportunities for Ecological Enhancements

Opportunities for ecological enhancement are limited due to the current and future use of the Site as an energy generating station. An existing fauna management plan was produced to limit the impact that the Consented Development (and by extension the Proposed Project) would have on protected species on-site, more specifically peregrine falcon.

As part of the Consented Development, a nest box for peregrine falcon was installed on site in 2017 on Building 41. The Consented Development recommended the installation of a nest box to enhance the Site (Chapter 13, paragraph 13.6.7.).

The new buildings of the Consented Development would provide suitable new nesting habitat for the peregrine falcons as they would be taller than the existing buildings on Site.

Small areas of soft landscaping are incorporated into the Consented Development landscape plan²⁶ including strengthening of boundary vegetation, green walls in association with office buildings and small areas of biodiverse wildflower planting. These limit the further enhancement that can be provided as part of the Proposed Project, as enhancement is already incorporated into the Consented Development, with a green wall of approximately 42m in width and 1.8m in height.

These should be planted with species that will enhance the biodiversity potential on the Site.

5. Conclusion

Based on the findings of this report no further ecological surveys or monitoring are required for bats or breeding birds, with the exception of peregrine falcon. The peregrine falcon is to be monitored as part of the Consented Development within the existing fauna management plan²⁷.

²⁶ Wheedon Architects (2020) Slough Multifuel. Landscaping Layout VAA-WA-500A150010AAF80060 3.0

²⁷ SSE Slough Multifuel (2019) Submission of Details to Discharge Condition 18 – Fauna Management Plan

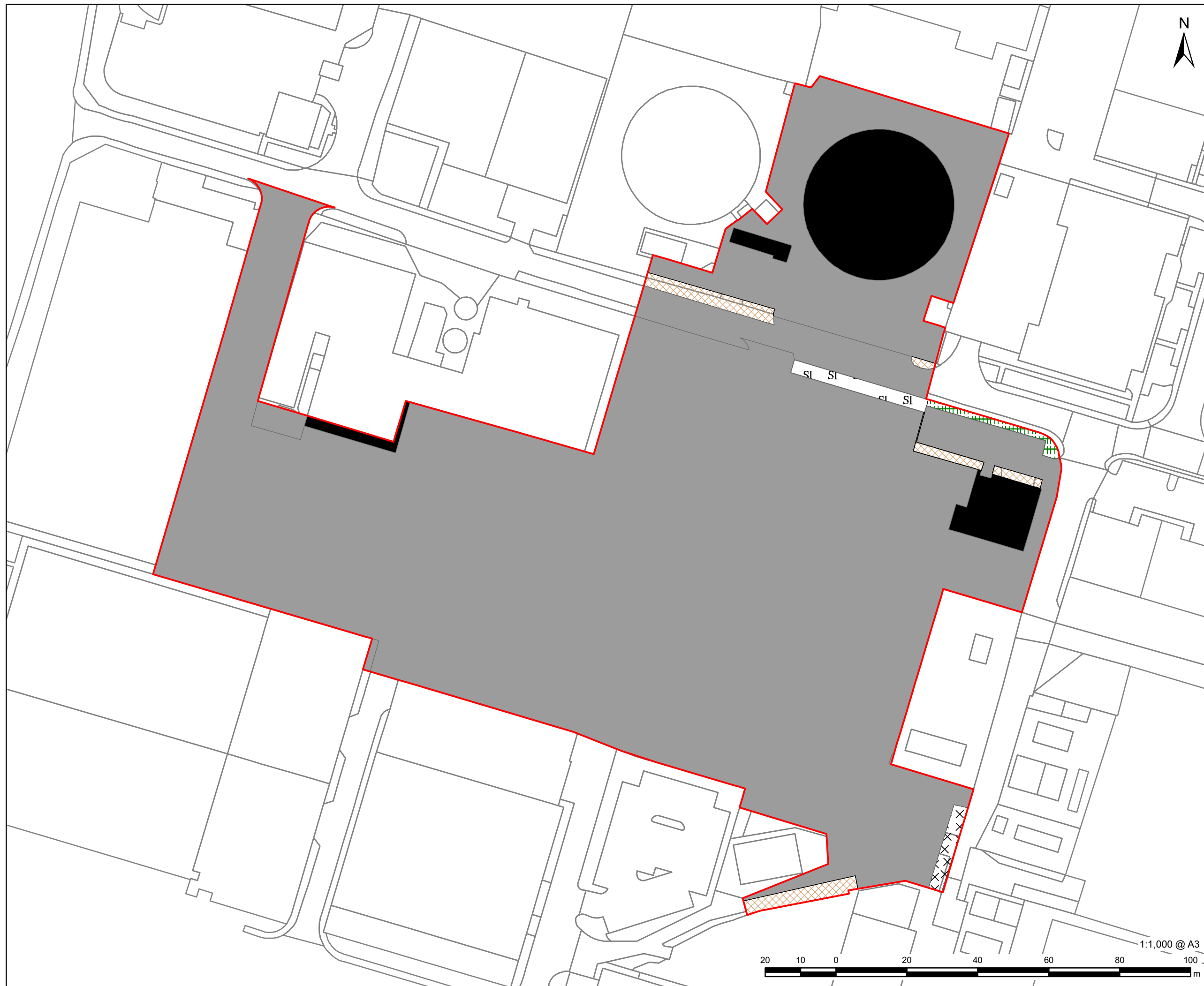
A revised air quality assessment has been completed to assess the impact of the Proposed Project due to a potential increase in sulphur and nitrogen deposition. This assessment found no effect on designated sites or ancient woodland.

If vegetation removal on-site is to be undertaken, although it is not anticipated in connection with the Proposed Project as it is already secured in connection with the Consented Development, then control measures for wall cotoneaster, a scheduled invasive non-native species will need to be implemented to prevent the spread within and off-Site.

Biodiversity Net Gain is not currently a legal requirement for NSIPs under the Environment Act 2021 for the Proposed Project. Enhancement has been already included as part of the Consented Development in the form of soft landscaping, a green wall, nesting boxes, a financial contribution to improve the area between Stirling Road and Bodmin Avenue (mainly additional trees) as well as a contribution to City of London to spend on air quality monitoring at Burnham Beeches. Further opportunities for enhancement in connection with the Proposed Project are therefore limited.

Appendix A Phase 1 Map

Figure 1: Phase 1 Habitat Map



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CONSULTANT

LEGEND

Phase 1 Habitat

 Hardstanding

 J1.4 - Introduced shrub

■ J3.6 - Buildings

NOTES

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ISSUE PURPOSE

PEI Report

PROJECT NUMBER

60662168

FIGURE TITLE

Phase 1

FIGURE NUMBER

Figure 10.3

Appendix B Summary of Legislation

B.1 Legislation

The UK is no longer a member of the European Union (EU). EU legislation as it applied to the UK on 31st December 2020 is now a part of UK domestic legislation. EU legislation which applied directly or indirectly to the UK before 11.00 p.m. on 31st December 2020 has been retained in UK law as a form of domestic legislation known as 'retained EU legislation'.

The Secretary of State for the Environment, Food and Rural Affairs and Welsh Ministers have made changes to parts of the *Conservation of Habitats and Species Regulations 2017* (referred to as the 2017 Regulations) so that they operate effectively. Most of these changes involve transferring functions from the European Commission to the appropriate authorities in England. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

B.2 Sites Designated for their Biodiversity Value

Special Protection Areas (SPA) / Special Areas of Conservation (SAC)

These sites in the UK no longer form part of the EU's Natura 2000 ecological network. The *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019* (referred to as the 2019 Regulations) have created a national site network on land and at sea, including both the inshore and offshore marine areas in the UK. The national site network includes:

- existing SACs and SPAs
- new SACs and SPAs designated under these Regulations

Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new national site network.

Formal Appropriate Assessment is required to be undertaken by the competent authority before undertaking, or giving consent, permission or other authorisation for any work which are likely to have a significant effect on such a site.

Wetland of International Importance (Ramsar site)

Designated under the *Convention on Wetlands of International Importance especially as Waterfowl Habitat 1971* (the Ramsar Convention), in the UK, these sites are treated as having the same level of protection as SPA's and SAC's.

Sites of Special Scientific Interest

Under the *Wildlife and Countryside Act 1981* (as amended), it is an offence to carry out or permit to be carried out any operations likely to damage the Site of Special Scientific Interest (SSSI). These operations are listed in the SSSI notification.

Owners, occupiers, public bodies and statutory undertakers must give notice and obtain the appropriate consent under S.28 of the *Wildlife and Countryside Act 1981* (as amended), before undertaking operations likely to damage a SSSI.

National Nature Reserve

National Nature Reserves (NNR) are established under the National Parks and Access to the Countryside Act 1949. Most NNRs are also underpinned by SSSIs and are therefore protected by the measures detailed above. For NNRs not underpinned by

SSSIs it is still an offence to carry out or permit to be carried out any potentially damaging operation.

NNRs are given protection through policies in a local development plan.

Local Nature Reserve

A Local Nature Reserve (LNR) is a statutory designation made under National Parks and Access to the Countryside Act 1949, by principal local authorities (district, borough or unitary councils).

The local authority must control the LNR land - either through ownership, a lease or an agreement with the owner.

LNRs are given protection through policies in a local development plan.

Locally Designated Sites

Local Wildlife Sites are sites with 'substantive nature conservation value'. They are defined areas, identified and selected for their nature conservation value, based on important, distinctive and threatened habitats and species with a region.

They are usually selected by the relevant Wildlife Trust, along with representatives of the local authority and other local wildlife conservation groups.

The LWS selection panel, select all sites that meet the assigned criteria, unlike SSSIs, which for some habitats are a representative sample of sites that meet the national standard. Consequently, many sites of SSSI quality are not designated and instead are selected as LWSs. Consequently, LWSs can be amongst the best sites for biodiversity.

B.3 Protected Species

Bats

These species, known as European Protected Species, are protected under Regulation 43 of the 2017 Regulations as amended by the 2019 Regulations. This makes it an offence to deliberately capture, injure or kill an animal; deliberately disturb an animal; or damage or destroy a breeding site or resting place used by an animal.

Deliberate capture or killing is taken to include "accepting the possibility" of such capture or killing. Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong.

Where development works are at risk of causing one or more of the offences listed above, a mitigation licence from Natural England can be obtained to facilitate the works that would otherwise be illegal.

These species are also protected under Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended). This makes it an offence to intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb an animal in such a place.

Lower levels of disturbance not covered by the *Conservation of Habitats and Species Regulations 2017* remain an offence under the *Wildlife and Countryside Act 1981*

although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided.

Nesting Birds

All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended), with some species afforded greater protection under Schedule 1 of the *Wildlife and Countryside Act 1981* (as amended). In addition to the protection from killing or taking that all birds receive; Schedule 1 birds and their young must not be disturbed at the nest.

There are no licensing purposes that explicitly cover development activities affecting wild birds.

B.4 Species and Habitats of Principal Importance for the Conservation of Biodiversity

Section 40 of the Natural Environment & Rural Communities Act (NERC) 2006 sets out the duty for public authorities to conserve biodiversity in England.

Habitats and species of principal importance for the conservation of biodiversity are identified by the Secretary of State for England, in consultation with Natural England, are referred to in Section 41 of the NERC Act for England. The list, known as the 'England Biodiversity List', of habitats and species can be found on the Natural England web site.

The 'England Biodiversity List' is used as a guide for decision makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act 2006 to have regard to the conservation of biodiversity in England when carrying out their normal functions.

B.5 Invasive Non-native Plant Species

Under the Wildlife and Countryside Act 1981 (as amended), it is an offence to plant or otherwise cause those plant species listed on Schedule 9 of the Act to grow in the wild.

Any contaminated soil or plant material containing propagules of plants listed on Schedule 9 transported off-site is classified as controlled waste and should be disposed of in a suitably licensed landfill site, accompanied by appropriate Waste Transfer documentation, and must comply with section 34 of the *Environmental Protection Act 1990*.

B.6 National Planning Policy

The National Planning Policy Framework (NPPF) was originally published on 27th March 2012 and detailed the Government's planning policies for England and how these are expected to be applied. The NPPF was then revised on 24th July 2018, 19th February 2019 and 20th July 2021.

The NPPF states the commitment of the UK Government to minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity.

In addition, the Environment Act 2021 makes biodiversity net gain a legal requirement for new development, but this does not yet apply to Nationally Significant Infrastructure Projects.

Overarching National Policy Statement for Energy (EN-1) (2011), with particular reference to paragraphs 4.2.2 and 4.2.3, which provide national policy on what an Environmental Statement for a Nationally Significant Infrastructure Project (NSIP) project should contain. The Draft Overarching National Policy Statement for Energy (EN-1) (2021) includes guidance for biodiversity net gains in paragraphs 4.5.1 to 4.5.3 and generic impacts on biodiversity in Part 5.4

The Draft National Policy Statement for Renewable Energy EN-3 (2021) now includes sections 2.5 to 2.19 (inclusive) which set out policy requirements specific to Biomass and Waste Combustion and these have been considered within this report.

B.7 Local Planning Policy and Guidance

Relevant local planning policies for the London Borough of Tower Hamlets are detailed in the following documents:

- Slough Local Development Framework – The Core Strategy Document (2006-2026);
- Slough Local Development Framework – Site Allocations Document (2010); and
- The Emerging Local Plan for Slough (2016-2036).

Table 10 provides a summary of relevant local planning policies. For the precise wording of each specific policy please refer to the source document. This planning policy has been considered when assessing potential ecological constraints and opportunities identified by the desk study and field surveys and when assessing requirements for further survey, design options and ecological mitigation.

Table 10: Local planning policy and guidance

Document	Planning Policy	Purpose
Slough Local Development Framework – The Core Strategy Document 2006-2026	Strategic Objective H	To protect, enhance and wherever practically possible increase the size of the Borough's biodiversity, natural habitats and water environment and those elements of the built environment with specific townscape, landscape and historic value.
	Core policy 8 (Sustainability and the Built environment)	All development in the Borough shall be sustainable, of a high-quality design, improve the quality of the environment and address the impact of climate change.
	Core policy 9 (Natural and Built environment)	Enhances and preserves natural habitats and the biodiversity of the Borough, including corridors between biodiversity rich features.
Slough Local Development Framework – Site Allocations	Biodiversity Opportunities Areas in Slough	Enhancing biodiversity of the South East Region through focusing attention on areas in the Borough that could contribute to the Region's priority habitats identified in the South East Biodiversity Action Plan. These are known as Biodiversity Opportunity Areas

document (2010)	and many have been identified across the South East.
The Emerging Local Plan for Slough (2016-2036)	No biodiversity policies published yet

Appendix C Methods

C.1 Desk Study

A new desk study was carried out to identify nature conservation designations and protected / notable habitats and species potentially relevant to the Proposed Project.

A stratified approach was taken when defining the desk study area, based on the likely zone of influence of the Proposed Project on different ecological receptors, and an understanding of the maximum distances typically considered by statutory consultees. Accordingly, the desk study identified any nature conservation designations (international, other statutory, local non-statutory) and protected / notable habitats and species within a 2km radius of the Site.

The desk study was carried out using the data sources identified in Table 1. Protected and notable habitats and species include those listed under Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended); Schedules 2 and 4 of the Conservation of Habitat and Species Regulations 2017 (as amended); and species and habitats of Principal Importance for nature conservation in England listed under Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006. Records of non-native controlled weed species were also collated; such species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

Table 11. Desk Study Sources

Data Source	Accessed	Data Obtained
Multi-Agency Geographic Information for the Countryside (MAGIC) website	February 2022	<ul style="list-style-type: none"> International statutory designations within 10km Statutory and non-statutory designations within 2km Information on habitats and habitat connectivity (based on aerial photography) relevant to interpretation of planning policy and assessment of potential protected and notable species constraints
Thames Valley Environmental Record Centre	February 2022	<ul style="list-style-type: none"> Statutory designations within 2km Protected and notable species records within 2km (recorded over last 10 years only)
Aerial photography of the Site	February 2022	<ul style="list-style-type: none"> OpenStreetMap

C.2 Field Survey

The field survey comprised a Phase 1 Habitat survey²⁸, which was extended to assess the potential suitability of the habitats present to support protected and notable species.

A walkover survey was conducted at the Site on 2nd February 2022 by an AECOM ecologist. An external inspection of the buildings to investigate the suitability of the Site to support bats and birds and other protected species was carried out during the survey.

²⁸ JNCC (2010). Field manual for Phase 1 habitat survey - a technique for environmental audit.

Habitats present on Site were noted and assessed for their potential to support protected species. Evidence of any species protected by law or listed on the Section 41 of the Natural Environment and Rural Communities Act (2006), were also recorded, where appropriate, during the survey. Likewise, the survey included searching for any scheduled invasive non-native plants or animals occurring on or adjacent to the Site.

C.3 Approach to the Identification of Ecological Constraints and Measures

Relevant ecological receptors are those that may represent constraints to the Proposed Project, or that provide opportunities to deliver ecological enhancement in accordance with planning policy.

The NPPF and local planning policy specify requirements for the protection of features of importance for biodiversity. Planning policy is a material consideration when determining planning applications.

Compliance with planning policy requires that the Proposed Project considers and engages the following mitigation hierarchy where there is potential for impacts on relevant ecological receptors:

- Avoid and protect features where possible;
- Minimise impact by design, method of working or other measures (mitigation) e.g., by enhancing existing features; and
- Compensate for significant residual impacts, e.g., by providing suitable habitats elsewhere (whether in the control of the Site owner or otherwise legally enforceable through planning condition or Section 106 agreement).

This hierarchy requires the highest level to be applied where possible. Only where this cannot reasonably be adopted should lower levels be considered. The rationale for the proposed mitigation and/or compensation should be provided with planning applications, including sufficient detail to show that these measures are feasible and would be provided.

Ecological enhancement may not be possible where there is little scope to accommodate enhancement within the Proposed Project, e.g. due to a lack of utilisable space, or where land is required for essential mitigation.

C.4 Preliminary Roost Assessment

An assessment of the structures and trees on and surrounding Site was carried out to determine their suitability to support roosting bats. The survey was conducted in line with the Bat Conservation Trust (BCT) survey guidelines²⁹.

Close focusing binoculars were used to conduct an external assessment of structures and trees where access was permitted. It should be noted that this only provided an initial assessment of features with suitability for roosting bats, through the presence of Potential Roost Features (PRFs). Checks of interior spaces of trees and structures were not completed.

On the basis of the external assessment, the overall suitability of these trees and structures to support roosting bats was classified according to the scale outlined in

²⁹ Collins, J. (editor) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition). Bat Conservation Trust: London

Table 12 with the follow up survey effort requirement outlined in Table 13 (based on Collins, 2016³).

Table 12: Criteria used to describe Bat Roost Suitability

Suitability Level	Type of Roost	Summer/Transitional Roost used by non-breeding bats	Maternity Roost	Hibernation Roost
Habitat Suitability				
Confirmed	Presence of bats or evidence of bats. Confirmation of roost status may require further survey.			
High	Feature with multiple roosting opportunities for one or more species of bats with good connectivity to high quality foraging habitat.	Feature with multiple roosting opportunities for breeding bats (size, temperature), with connectivity to high quality foraging habitat.	Feature with multiple roosting opportunities in close proximity to high quality foraging habitat.	Large site that offers cool stable conditions with opportunities in close proximity to high quality foraging habitat.
Moderate	Feature with some roosting opportunities and connectivity to moderate or high-quality foraging habitat.	Feature with some roosting opportunities and connectivity to moderate or high-quality foraging habitat.	Feature providing roosting with some connectivity to moderate or high-quality foraging habitat.	Medium sized feature with some roosting opportunities and connectivity to moderate or high-quality foraging habitat.
Low	Feature with a limited number of roosting opportunities with poor connectivity to foraging habitat.	Feature with a limited number of roosting opportunities for breeding bats with low proximity and connectivity to moderate quality foraging habitat.	Small sized feature which may be subject to disturbance or environmental variations, with a limited number of roosting opportunities and poor connectivity to foraging habitat.	

Table 13: Survey Effort for Bat Roosts based on Roost Suitability

Roost/Location	Low Suitability	Medium Suitability	High Suitability
Building/Structure	One survey visit; either a dusk emergence or dawn re-entry survey.	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey.	Three separate survey visits consisting of at least one dusk emergence and a separate dawn re-entry survey, with the third visit either a dusk or dawn survey.

Roost/Location Low Suitability Medium Suitability High Suitability

Tree	No Required, precautionary working only.	Survey Two dusk and dawn survey.	Two separate visits. One emergence a separate re-entry survey.	Three separate visits consisting of at least one dusk emergence and a separate dawn re-entry survey, with the third visit either a dusk or dawn survey.
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C.5 Limitations and Assumptions

Information obtained during the course of a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for particular habitats or species does not necessarily mean that the habitats or species do not occur in the study area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the Proposed Project.

The Site walkover survey was undertaken in February 2022, which is outside the optimal period for vegetation surveys. The level of survey was sufficient to assess the suitability of the Site to support protected and/or notable habitats.

No direct access was obtained to the construction site, however as this area has been previously cleared of ecological constraints and was visible from adjacent land this is considered an acceptable approach and not a constraint to assessment.

Appendix D Photographs



Introduced shrub block to the north of
Edinburgh Road.



Small area of introduced shrubs
including wall cotoneaster



Poor Semi-improved grassland



Species poor beech hedgerow

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