SLOUGH MULTIFUEL PROJECT

SLOUGH MULTIFUEL EXTENSION PROJECT

[PINS Ref: EN010129]

Environmental Statement
Volume 1 – Environmental Statement

Chapter 10 - Ecology

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AECOM

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10.0 ECOLOGY

10.1 Introduction

10.1.1 This chapter of the Environmental Statement (ES) **[Application Document Reference 6.2]** details the findings of an assessment to identify the potential for the Proposed Project to result in likely significant effects on features of value for biodiversity. The assessment includes consideration of designated sites, habitats, and species.

10.1.2 The baseline environment with respect to ecology and biodiversity and approach to the assessment is outlined in this ES chapter. Those aspects of the Proposed Project that may cause impacts on ecology and biodiversity are identified, and an assessment is made of the likely significant effects. Appropriate mitigation and enhancement measures are reported, where applicable.

10.2 Legislation and Planning Policy

National Legislation

10.2.1 The following wildlife legislation is potentially relevant to the Proposed Project:

- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Natural Environment and Rural Communities (NERC) Act 2006;
- The Conservation of Habitats & Species Regulations 2017 (as amended);
- The Environment Act (2021); and
- Invasive Alien Species (Enforcement and Permitting) Order 2019 (as amended).

10.2.2 This legislation has been considered when planning and undertaking the Extended Phase 1 Habitat Survey, when identifying potential constraints to the Proposed Project, and when making recommendations for further survey compliance with legislation which may require the attainment of relevant protected species licences prior to the implementation of the Proposed Project.

10.2.3 Further information on the requirements of the above legislation is provided within the Extended Phase 1 Habitat Report (see **Appendix 10A [Application Document Reference 6.4.8 – Slough Multifuel Extended Phase 1 Habitat Survey Report]**

National Planning Policy

National Policy Statements

10.2.4 This assessment takes account of the following relevant National Policy Statements (NPSs) for energy, which were ‘designated’ in 2011 and as far as they are applicable, are considered to be matters that will be important and

relevant to the Secretary of State's decision as to whether to grant a DCO for the Scheme. These NPSs are, as of June 2022, in the process of being updated and therefore, relevant sections of the draft NPSs are also included below, where relevant.

10.2.5 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 ES for a Nationally Significant Infrastructure Project (NSIP) project should contain; paragraph 4.3.1 which states what the Secretary of State must, under the Conservation of Habitats and Species Regulations 2017, consider when granting a development consent order; and part 5 section 5.3 which sets out guidance on generic impacts relating to biodiversity for the applicant's assessment and decision-making on the application. 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 and that guidance has also been considered within this chapter.

10.2.6 The Draft National Policy Statement for 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 chapter.

National Planning Policy Framework & National Planning Practice Guidance: Natural Environment

10.2.7 The National Planning Policy Framework (NPPF) (HMSO, 2012; revised in 2021) details the Government's planning policies for England and how these are expected to be applied. It states the commitment of the UK Government to minimising impacts on biodiversity and providing net gains in biodiversity, contributing to the Government's commitment to halt the overall decline in biodiversity.

10.2.8 It specifies the obligations that Local Authorities and the UK Government have regarding statutory designated sites and protected species under UK and international legislation and how this is to be delivered in the planning system. The presence of protected or notable habitats and species can be a material consideration in planning decisions and may therefore make some sites unsuitable for particular types of development, or if development is permitted, mitigation measures may be required to avoid or minimise impacts on certain habitats and species. Where impact is unavoidable, NPPF outlines that compensation may be required.

10.2.9 NPPF Chapter 15: Conserving and enhancing the natural environment, is particularly relevant to this assessment. NPPF para 174, states "*Planning policies and decisions should contribute to and enhance the natural and local environment by (criterion d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"*. NPPF para 179, states "*To protect and enhance biodiversity… plans should (criterion b) promote the conservation, restoration and enhancement of priority habitats, ecological*

networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity".

Environment Act 2021 / Biodiversity Net Gain (BNG)

10.2.10 The Environment Act transposes elements of the UK Government's 25 Year Environment Plan into statute and confirms the UK's approach to environmental governance post-Brexit. Relevant key provisions include: the creation of a new environmental watchdog (the Office for Environmental Protection); and the setting of air quality targets including for fine particulate matter. It also notably includes the provisions to enable BNG to be made a mandatory requirement for new development in England, although the date on which these BNG provisions will come into effect is not yet determined.

Biodiversity 2020: A strategy for England's wildlife and ecosystem services

10.2.11 Biodiversity 2020 was published by DEFRA in 2011. The strategy builds on the Natural Environment White Paper (2011), with an overall mission to *"halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people"*.

10.2.12 The strategy includes consideration of planning and development. In addition, it includes commitments to (i) retain protection and improvement of the natural environment as core objectives for local planning and development management; and (ii) support biodiversity offsetting pilots through a two-year test phase, until spring 2014. It also makes clear that the government expects the planning system to contribute to achieving no net loss of biodiversity.

Local Planning Policy

10.2.13 Local Planning policies that are relevant to the Proposed Project are:

- Slough Borough Council's Local Development Framework Core Strategy 2006-2026; Core Policy 9 – Natural and Built Environment;
- Slough Local Development Plan 2019; and
- Future emerging local plan for Slough 2016-36.

10.2.14 These policies identify the need for ecological surveys to inform the assessment of how biodiverse an area is and how much of an impact to biodiversity development will have on land within the Site and to areas surrounding the Site. In addition, they require the assessment to consider features of ecological interest and connectivity between habitats. The policies also identify measures to enhance biodiversity and adequately mitigate unavoidable impact on existing biodiversity.

10.2.15 With regards to enhancing and protecting biodiversity and connectivity, the policies require consideration of the impacts on biodiversity by assessing protected species and habitats that could be impacted by the Proposed Project.

Other Guidance

10.2.16 The Natural Environment in Berkshire Biodiversity Strategy 2014 – 2020 (Berkshire Local Nature Partnership, 2014) has been produced to conserve and enhance the habitats and species of principal importance (those on Section 41 of the NERC Act 2006) in Berkshire. The strategy has a number of published objectives to *"protect and enhance habitats and ecosystems on land*", and objectives for species and people. This includes the identification of Biodiversity Opportunity Areas (BOAs) and delivery of conservation action within these areas.

10.3 Assessment Assumptions and Limitations

10.3.1 Limitations to the undertaking of protected species surveys were identified, and these are set out in the relevant survey reports.

10.3.2 Limitations generally refer to the seasonal variation of habitats and species (i.e., the presence, distribution and status of protected species can vary between seasons and years), areas not directly accessible due to demolition or construction works and limitations with the provision and analysis of third party data.

10.3.3 Due to the overall limited distribution of habitats and species present these did not limit the knowledge of the ecological baseline, especially when considering surveys of the Site and surrounds have been undertaken across a number of years and seasons since 2011.

10.3.4 No significant limitations were therefore identified that were considered to materially affect the data collected, or the ecological impact assessment presented in this report.

10.4 Assessment Method

Study Area

10.4.1 The study area will comprise the Proposed Project Site boundary and the following buffer zone distances for a number of possible receptors:

- international statutory designated sites for nature conservation within a 15km radius;
- sites nationally statutorily designated for their nature conservation value within a 5km radius;
- other statutory designated sites for nature conservation within a 2km radius;
- ancient woodland and notable habitats within a 1km radius;
- non-statutory designated sites within a 1km radius;
- records of legally protected and notable species within a 1km radius; and
- records of invasive non-native species, such as Japanese knotweed, within a 1km radius.

10.4.2 Note the zone of influence varies in accordance with the sensitivity and value of each receptor.

Method

10.4.3 This Ecological Impact Assessment (EcIA) has been undertaken with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater and Coastal' (CIEEM, 2018). The aims of the ecology assessment are to:

- identify relevant ecological features (i.e., designated sites, habitats, species or ecosystems) which may be impacted;
- provide an objective and transparent assessment of the likely ecological impacts and resultant effects of the Proposed Project. Impacts and effects may be beneficial (i.e., positive) or adverse (i.e., negative) and their duration may be permanent or temporary;
- facilitate objective and transparent determination of the consequences of the Proposed Project in terms of national, regional, and local policies relevant to nature conservation and biodiversity; and
- set out what steps would be taken to adhere to legal requirements relating to the relevant ecological features concerned.

10.4.4 The assessment describes the methods used to identify and assess the potential significant effects of the Proposed Project during the construction, operational and decommissioning phases. Baseline conditions are then described, and subsequently the impact assessment is undertaken taking into account avoidance and mitigation measures that are inherent to the design (e.g., the retention of a boundary tree known to support a bat roost), including the use of good industry practice construction methods (e.g., implementation of methods to suppress dust generation or avoid pollution of water bodies). Additional mitigation, compensation and enhancement measures are then described, followed by an assessment of the significance of residual effects. A summary of the assessment is then provided, together with relevant conclusions.

10.4.5 In line with the CIEEM guidelines, the terminology used within the EcIA draws a clear distinction between the terms 'impact' and 'effect'. For the purposes of the EcIA these terms are defined as follows:

- Impact - Actions resulting in changes to an ecological feature (e.g., demolition activities leading to the removal of a building utilised as a bat roost); and
- Effect - Outcome resulting from an impact acting upon the conservation status or structure and function of an ecological feature (e.g., killing/injury of bats and reducing the availability of breeding habitat as a result of the loss of a bat roost may lead to an adverse effect on the conservation status of the population concerned).

10.4.6 For each phase of the Proposed Project, e.g., construction and operation, the assessment is structured and reported by ecological feature with relevant

potential impacts on that feature described in turn, and then the overall effect arising from those impacts reported.

10.4.7 Note that decommissioning effects will be similar in type, extent and duration to construction and therefore decommissioning effects have been assessed in tandem with construction.

Method for Determining Construction, Operational and Decommissioning Effects

10.4.8 The assessment as to the likely significant ecological effects includes an assessment of all ecological features with the potential to be directly or indirectly affected by the Proposed Project (including secondary and cumulative effects). This includes all habitats within the boundary of the Proposed Project and those outside of it that could be indirectly affected.

10.4.9 These search areas are considered proportionate to the scale of the Proposed Project and its likely zone of influence.

10.4.10 The following organisations were contacted, and websites/ documents reviewed and searched for pertinent data, as listed in Table 10.1.

Table 10.1. Desk Study Data Sources

Data Source	*Accessed*	*Data Obtained*
Multi-Agency Geographic Information for the Countryside (MAGIC) website	June 2022	International statutory designations within 10 km Statutory and non-statutory designations within 2 km 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 (TVERC, 2022)	February 2022	Statutory designations within 2 km Protected and notable species records within 2 km (recorded over last 10 years only)
Aerial photography of the Site (2021 image capture)	February 2022	OpenStreetMap, habitat photography

10.4.11 Field surveys were undertaken to provide specific site-based evidence, adding to the survey work obtained for the Consented Development Environmental Statement undertaken during 2012 and further ecological surveys undertaken during 2018 and 2019 which were carried out to inform demolition works on the Site as part of the Consented Development. These historic surveys have been

updated with an Extended Phase 1 Habitat Survey undertaken in February 2022.

10.4.12 Note that the 2022 Extended Phase 1 Habitat Survey was conducted to review whether the baseline (i.e., habitats and distribution of species) was broadly comparable to that previous identified or whether further update ecological surveys are required.

10.4.13 Full details of the method applied in each survey are presented in the relevant technical reports located in **Appendix 10D [Application Document Reference 6.4.11 – EcIA Methodology Technical Appendix]** of this ES.

10.4.14 The previous surveys provided a robust baseline for protected species and the 2022 Phase 1 Habitat survey determined the current habitat conditions on Site. Following the previous Environmental Statement surveys for the Consented Development, a number of protected species surveys were undertaken across spring 2018 to winter 2021 / 2022 which establishes a robust baseline for the EcIA for the Proposed Project. A summary of the ecology surveys and reports prepared for the Proposed Project are summarised in Table 10.2.

10.4.15 Full survey methods are presented in the technical reports that accompany this EcIA (refer to **Appendix 10A [Application Document Reference 6.4.8 – Slough Multifuel Extended Phase 1 Habitat Survey Report], Appendix 10B [Application Document Reference 6.4.9 – No Significant Effects], Appendix 10C [Application Document Reference 6.4.10 – SSE Bat Survey Report], and Appendix 10D [Application Document Reference 6.4.11 – EcIA Methodology Technical Appendix]** in this ES).

Table 10.2. Summary of Ecology Surveys at the Site

Survey	*Survey Dates*	*Scope of Surveys*	*Method*	*Reference to*
Phase 1 Habitat Survey Protected Species Appraisal	August 2011 and updated in June 2013	Extended Phase 1 Habitat Survey (including scoping for protected species)	Joint Nature Conservation Committee (JNCC) (2010)	URS Environmental Statement Chapter 13
	February 2022	Extended Phase 1 Habitat Survey (including scoping for protected species) and Habitat Condition Assessment	Preliminary Ecological Appraisal in accordance with CIEEM, 2017. Habitat Condition assessment in accordance	2022 AECOM Extended Phase 1 Habitat Survey **(Appendix 10A [Application Document Reference 6.4.8 –**

Survey	*Survey Dates*	*Scope of Surveys*	*Method*	*Reference to*
			with Natural England, 2019	**Slough Multifuel Extended Phase 1 Habitat Survey Report]**.
Breeding Bird and Peregrine Falcon Survey	March to July 2018	Peregrine falcon survey Common birds census	Common bird census in accordance with Marchant, J.H. (1983). Peregrine falcon survey in accordance with Hardy et al. (2014).	AECOM 2018a Breeding Bird and Peregrine Falcon Report **(Appendix 10E) [Application Document Reference 6.4.12 – Confidential Peregrine Falcon Appendix])**
Peregrine Falcon Monitoring	February to July 2019	Peregrine falcon survey	Peregrine falcon survey in accordance with Hardy et al. (2014).	AECOM 2019 Peregrine Falcon Monitoring Report **(Appendix 10E) [Application Document Reference 6.4.13 – Confidential Peregrine Falcon Appendix]**
Peregrine Falcon Monitoring	March to July 2021	Peregrine falcon survey	Peregrine falcon survey in accordance with Hardy et al. (2014).	BSG Peregrine Falcon Survey

Survey	*Survey Dates*	*Scope of Surveys*	*Method*	*Reference to*
Bat Emergence Survey	May 2018	Roosting bat presence / absence survey	Emergence surveys of structures in accordance with Collins, 2016.	AECOM 2018b Bat Emergence Survey Report (**Appendix 10C) [Application Document Reference 6.4.10 – SSE Bat Survey Report],**

Identification of Important Ecological Features

10.4.16 To support focussed EcIA, there is a need to determine the scale at which the ecological features identified through the desk studies and field surveys undertaken for the Proposed Project are of value.

10.4.17 The value of each ecological feature has been defined with reference to the geographical level at which it matters, and the results of this assessment have been used to identify the relevant features requiring impact assessment. The frames of reference used for this assessment, based on CIEEM guidance, are:

- International (i.e., European);
- National (i.e., England);
- Regional (i.e., South East England);
- County/Metropolitan (i.e., Berkshire);
- Borough (i.e., Slough);
- Local (i.e., Site and immediate surrounds); and
- Negligible (i.e., common and widespread ecological features of such low priority that they do not require retention or mitigation at the relevant location).

10.4.18 All ecological features of Local value and above have been taken forward to impact assessment and are the 'relevant ecological features' for the purposes of impact assessment.

Assessment (Significance) Criteria

10.4.19 The CIEEM guidelines state that:

"For the purposes of EcIA a 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general…"

10.4.20 In broad terms, significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution).

10.4.21 The assessment method of effects in terms of designated sites, ecosystems, habitats, and species is provided in **Appendix 10D [Application Document Reference 6.4.11 – EcIA Methodology Technical Appendix]** of this ES.

10.4.22 Conclusions on the significance of effects are related to the concepts of 'structure and function' or 'conservation status' as being either:

- Not significant (i.e., no effect on structure and function, or conservation status); or
- Significant (i.e., structure and function, or conservation status is affected).

10.4.23 There are a number of approaches for determining the significance of effects on ecological features. Whilst the CIEEM guidelines recommend the avoidance of the use of the matrix approach for categorisation (major, moderate and minor), in order to provide consistency of terminology, the CIEEM assessment will be translated into the classification of effects scale, as outlined in the Scoping Report (AECOM 2021) (refer to **Appendix 1A [Application Document Reference 6.4.1 – EIA Scoping Report]** and repeated in Table 10.3 below.

Table 10.3. Relating CIEEM assessment terms to those used in other EIA chapters (from Scoping Report AECOM, 2021)

Effect classification terminology used in other EIA chapters	*Equivalent CIEEM assessment*
Major beneficial (positive)	1) Permanent addition of, improvement to, or restoration of a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact positively affects the integrity or key characteristics of the resource.
Moderate beneficial (positive)	1) Temporary addition of, improvement to, or restoration of a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact positively affects the integrity or key characteristics of the resource.
Minor beneficial (positive)	1) Permanent addition of, improvement to, or restoration of a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact does not affect the integrity or key characteristics of the resource.

Effect classification terminology used in other EIA chapters	*Equivalent CIEEM assessment*
Negligible beneficial (positive)	1) Temporary addition of, improvement to, or restoration of a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact does not affect the integrity or key characteristics of the resource.
Negligible adverse (negative)	1) Temporary/reversible damage to a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact does not affect the integrity or key characteristics of the resource.
Minor adverse (negative)	1) Permanent/irreversible damage to a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact does not affect the integrity or key characteristics of the resource.
Moderate adverse (negative)	1) Temporary/reversible damage to a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact negatively affects the integrity or key characteristics of the resource.
Major adverse (negative)	1) Permanent/irreversible damage to a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact negatively affects the integrity or key characteristics of the resource.

10.4.24 Such judgements are based, wherever possible, on quantitative evidence. However, where necessary the professional judgement of an experienced ecologist has been applied (CIEEM, 2018).

10.5 Stakeholder Engagement

10.5.1 A Scoping Opinion (refer to **Appendix 1B [Application Document Reference 6.4.2 – PINS Scoping Opinion]** has been received from The Planning Inspectorate, on behalf of the Secretary of State, providing an opinion on the matters to be included within this ES.

10.5.2 The Scoping Report scoped in only a small number of ecological receptors (limited to designated sites, peregrine falcon, common nesting birds and

invasive plant species) which was accepted by The Planning Inspectorate within the Scoping Opinion.

10.5.3 The following quality impacts on ecological receptors have been scoped out of the assessment (as agreed by The Planning Inspectorate in the Scoping Opinion):

- Air quality impact on two Local Nature Reserves (Haymill Valley and Cocksherd Wood LNRs) and three non-statutory sites (Haymill Valley, Cocksherd Wood and Boundary Copse Woodland Trust Reserve). Air quality impacts have therefore been assessed for international designations and ancient woodlands only due to the limited expected impacts (i.e., air quality impacts were found to be negligible as part of previous assessment of the Consented Development and higher valuation of these Sites);
- Construction phase traffic emissions on local air quality. The vehicle numbers associated with the Proposed Project will equate to approximately one HGV per day plus movements of 20 additional staff, who will be subject to transport restrictions (such as car sharing) as described in **Chapter 7: Transport and Access [Application Document Reference 6.2.7 – ES Chapter 7]** of this ES, which will have a clearly negligible effect on air quality; and
- Demolition and earthwork stages of the construction phase have been scoped out as no such works are proposed as part of the Proposed Project.

10.5.4 For those items raised by the Inspectorate and not scoped out, Table 10.4 presents how these items have been addressed and their location within this ES chapter and supporting appendix.

10.5.5 No comments were received from any stakeholders relevant to this chapter during statutory consultation.

Table 10.4. Main Matters Raised during Consultation

Consultee	*Main matter raised*	*How has the concern been addressed*	*Location of response in chapter*
Planning Inspectorate (Scoping Opinion)	"*Projects exceeding 50 megawatts should apply a larger search radius of 15km for the screening of sensitive ecological sites*"	Desk study radius for international designated sites increased to 15km	Incorporated into baseline assessment within **Chapter 10**, Section 10.6. of this ES Chapter **[Application Document Reference 6.2.10 – ES Chapter 10]**

Consultee	*Main matter raised*	*How has the concern been addressed*	*Location of response in chapter*
Planning Inspectorate (Scoping Opinion)	"*consider that the Proposed Project is located within the Impact Risk Zones (IRZs) for Burnham Beeches SAC, Windsor Forest and Great Park, SAC and South West London Waterbodies SPA*."	SACs and SPAs subject to air quality assessment and carried through assessment stages	Carried through to assessment as detailed in Section 10.8 as informed by air quality assessment within **Chapter 8** of this ES **[Application Document Reference 6.2.10 – ES Chapter 10]**

10.6 Baseline Conditions

10.6.1 The Site is predominantly hard standing as demolition works for the Consented Development under the previously approved planning application are now complete and construction of the Consented Development is underway. Details of the existing site are presented in **Chapter 4: Existing Site Conditions [Application Document Reference 6.2.4 – ES Chapter 4]** of this ES.

10.6.2 The assessment has been based on a future baseline scenario that consists of the completed Consented Development, which will primarily consist of buildings and hardstanding. Ecologically, this is similar to the present-day baseline, which is an active construction site following the demolition of buildings previously present within the Site. This will additionally include some small areas of landscaping planting and is inclusive of building massing and height greater than buildings present pre-demolition.

10.6.3 Receptors applicable to the Proposed Project on the basis of the existing and future ecological baseline are described within this section.

Nature Conservation Designations

10.6.4 Details on the nature conservation designations identified within the potential zone of influence of the Proposed Project are provided in the Extended Phase 1 Habitat Report (refer to **Appendix 10A [Application Document Reference**

6.4.8 – Slough Multifuel Extended Phase 1 Habitat Survey Report].and are summarised in the following table.

10.6.5 Twenty-four statutory sites designated for nature conservation were identified within the stated desk study areas (15km for international and 5km for national). These are summarised in Table 10.5 and shown in **Figure 10.1 [Application Document Reference 6.3.14 – International and National Statutorily Designated Sites within 15km]**

10.6.6 These designated sites will not be impacted during the construction, operation or decommissioning phases of the Proposed Project.

Table 10.5. Sites with Statutory Designations for Nature Conservation

Site Name (and area)	*Status*	*Description*	*Distance (km) and direction from closest point of the Site*	*Valuation*
Haymill Valley (8.67ha)	Local Nature Reserve (LNR)	An area of marshy wet woodland, reedbed, streams and open water described as a valuable haven for wildlife within Slough.	0.9km west	National
Cocksherd Wood (4ha)	LNR	An ancient woodland containing beech (*Fagus sylvatica*) woodland with a sparse shrub layer and ground flora running along the chalky northern edge.	1.4km north-west	National
Burnham Beeches (383ha)	Special Areas of Conservation (SAC)	An example of Atlantic acidophilous beech forests in central southern England. It is an extensive area of former beech wood-pasture with many old pollards and associated beech and oaks (species of *Quercus*).	2.9km north	International
Burnham Beeches (202.34ha)	National Nature Reserve (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.	2.9km north-west	National
Stoke Common (83.18ha)	SSSI	Heathland with pockets of birch, pine and mixed woodland. There are several ponds on the common which support bog bush cricket (*Metrioptera brachyptera*).	4.1km north-east	National

Site Name (and area)	*Status*	*Description*	*Distance (km) and direction from closest point of the Site*	*Valuation*
Sutherland Grange (3.19ha)	LNR	Meadow with a variety of flowers and grasses that attract invertebrates and birds.	4.3km south	National
South Lodge Pit (0.53ha)	SSSI	South Lodge Pit exposes part of the only known British example of a late Santonian-early Campanian chalk phosphorite (calcium phosphate) deposit	4.4km west	National
Littleworth Common (15.84ha)	SSSI	An area of formerly open heathland, which has developed through natural succession into birch-oak woodland and is one of the last recorded locations for the nationally rare starfruit (*Damasonium alisma*) , a species included in Schedule 8 under the Wildlife and Countryside Act 1981 and a UK BAP Priority Species.	4.7km north-west	National
Bray Pennyroyal Field (3.43ha)	SSSI	a single field adjoining the River Thames to the south-east of Bray representing the sole Berkshire locality for the nationally rare pennyroyal (*Mentha pulegium*), a species included in Schedule 8 under the Wildlife and Countryside Act 1981 and listed in the British Red Data Book of vascular plants	4.7km south-west	National
Bray Meadows (3.99ha)	SSSI	A series of species-rich, agriculturally unimproved meadows adjacent to a side channel of the River Thames near	5.4km west	National

Site Name (and area)	*Status*	*Description*	*Distance (km) and direction from closest point of the Site*	*Valuation*
		Maidenhead. The meadows support a very uncommon type of grassland with a distinctive flora which is particularly characteristic of the calcareous alluvium of the lower Thames floodplain		
Black Park (14.52ha)	SSSI	A variety of habitats comprising dry and wet heath, alder carr, mixed and coniferous woodland and small areas of acid grassland	5.7km north-east	National
Windsor Forest & Great Park (1685.92ha)	SAC	The site represents old acidophilous oak woods in the south-eastern part of its UK range and has the largest number of veteran oaks in Britain (and probably in Europe), a consequence of its management as wood-pasture. It is of potential international importance for its saproxylic invertebrate fauna including violet click beetle (*Limoniscus violaceus*) and is also designated its beech forests.	6.0km south-west	International
South West London Waterbodies (830.26ha)	Special Protection Area (SPA)	Reservoirs supporting internationally important numbers of Gadwall Anas strepera and Shoveler (*Anas clypeata*). In addition, the site supports nationally important numbers of cormorant (*Phalacrocorax carbo*), great crested grebe (*Podiceps cristatus*), tufted duck (*Aythya fuligula*), pochard (*Aythya ferina*) and coot (*Fulica atra*).	7.6km south-east	International

Site Name (and area)	*Status*	*Description*	*Distance (km) and direction from closest point of the Site*	*Valuation*
South West London Waterbodies (830.26ha)	Ramsar	Comprises 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 (*Anas strepera*) and Shoveler.	7.6km south-east	International
Cannoncourt Farm Pit (0.067ha)	SSSI	This pit worked gravels of the Lynch Hill Terrace of the Thames has yielded large numbers of Palaeolithic implements since the beginning of the century. Note designated for geological rather than ecological importance.	7.4km west	National
Wraysbury No. 1 Gravel Pit (57.75ha)	SSSI	The site is locally important for wintering bird species including great crested grebe, cormorant , pochard, tufted duck and coot.	7.5km south-east	National
Cock Marsh (18.55ha)	SSSI	A site exhibiting a transition in a relatively small area from wet alluvial grassland, through calcareous grassland on a steep north-facing slope to more acidic grassland on clay at the top of the slope	8km north-west	National
Kingcup Meadows and Oldhouse Wood (13.2ha)	SSSI	An intimate mosaic of habitats adjacent to the River Alderbourne, which includes woodland, unimproved pastures and semi and unimproved meadowland. The fields	8km north-east	National

Site Name (and area)	*Status*	*Description*	*Distance (km) and direction from closest point of the Site*	*Valuation*
		are comprised of dry grassland, wet grassland and areas of fen and swampy vegetation		
Great Thrift Wood (13.9 ha)	SSSI	A predominantly damp, ancient, coppiced woodland displaying a varied and relatively undisturbed stand structure with a rich shrub and ground flora, all indicating a very long continuity of woodland cover.	8.4km west	National
Wraysbury & Hythe End Gravel Pits (116.65ha)	SSSI	Wraysbury and Hythe End Gravel Pits comprise a mosaic of open water, islands, grassland, scrub and woodland within an area of four former gravel pits.	8.9km south-east	National
Chawridge Bourne (8.94ha)	SSSI	An area of unimproved grassland, scrub and broadleaved woodland containing species of plants local or rare in east Berkshire. About half the area consists of unimproved neutral to acid grassland.	9.5km south-west	National
Bisham Wood and Chiltern Beechwoods (83.67ha)	SSSI	An extensive area of predominantly broad-leaved woodland situated on a steep north-west facing slope overlooking the River Thames. Most of the woodland consists of beech high forest and, as such, represents a southern outlier of the Chiltern beechwoods.	9.5km north-west	National

Site Name (and area)	*Status*	*Description*	*Distance (km) and direction from closest point of the Site*	*Valuation*
Old Rectory Meadows (7.9ha)	SSSI	An area containing a range of grassland types, notably base-rich and poor marsh, wet alluvial meadows and water meadows with grazed wet and damp meadows, as well as alder carr woodland.	9.6km north-east	National
Chiltern Beechwoods (1283.85ha)	SAC	The site represents a very extensive 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 (*Cardamine bulbifera*) and the site is also important for calcareous grasslands, orchids and stag beetle (*Lucanus cervus*).	9.7km north-west	International

10.6.7 Five non-statutory sites designated for nature conservation were identified within the stated desk study areas (within a radius of 2km of the Site). These are summarised in Table 10.6 and shown in **Figure 10.2 [Application Document Reference 6.3.15– Non-Statutorily Designated Sites within 2km]**

Table 10.6. Sites with Non-Statutory Designations for Nature Conservation

Site Name	*Status*	*Description*	*Distance (km) and direction from closest point of the Site*	*Valuation*
Haymill Valley (8.80ha)	Local Wildlife Site (LWS)	A Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT) nature reserve containing mixed woodland with bluebells and reedbeds	0.8km west	Borough
Haymill Valley (24ha)	BOA	Contains chalk grassland with extensive areas along banks throughout the area and lowland mixed deciduous woodland and beech woodland.	0.9km north-west	Borough
Cocksherd Wood (4ha)	LWS	Ancient woodland supporting a wide variety of flora and fauna known locally as Bluebell Wood. Key plant species are field maple (Acer campestre), birch (*Betula* species), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), beech, ash (*Fraxinus excelsior*), holly (*Ilex aquifolium*), honeysuckle (*Lonicera periclymenum*), wild cherry (*Prunus*	1.4km north-west	Borough

Site Name	*Status*	*Description*	*Distance (km) and direction from closest point of the Site*	*Valuation*
		species), blackthorn (*Prunus spinosa*), oak (*Quercus* species) and bluebell (*Endymion non-scriptus*).		
Boundary Copse Woodland Trust Reserve	Woodland Trust Reserve	A reserve containing mixed woodland with bluebells and reedbeds	1.3km north-east	Borough
Railway Triangle (off Stranraer Gardens) (LWS)	LWS	Grassland and scrub adjacent to the railway tracks surrounded by residential properties.	2km east	Borough

10.6.8 Bray to Eton Pits & Meadows Biodiversity Opportunity Area (BOA) is also located 0.8km to the west of the Site, which is an area targeted for biodiversity enhancement by Slough Borough Council (SBC). The BOA includes a variety of sites within lowland meadow habitat including Bray Meadows SSSI, Bray Pennyroyal Field (Table 1.6), and Sutherland Grange LNR and there are a number of meadows with remnants of lowland meadow habitat.

10.6.9 Two Ancient Woodland Inventory (AWI) sites are present within 2km of the Site as per Table 10.7 and shown in **Figure 10.2 [Application Document Reference 6.3.15– Non-Statutorily Designated Sites within 2km].**

Table 10.7. Ancient Woodland Inventory Sites

Site Name (reference number and area)	*Status*	*Description*	*Distance (km) and direction from closest point of the Site*	*Valuation*
Unnamed Woodland (1496415) (0.6ha)	Ancient Woodland	Ancient & Semi-Natural Woodland	1.8km north	County

Unnamed Woodland (1496414) (1.1ha)	Ancient Woodland	Ancient & Semi-Natural Woodland	2km north-west	County

Habitats

10.6.10 A small number of semi-natural habitats were recorded during the 2022 AECOM Phase 1 Habitat Survey and Report **(**refer to **Appendix 10A**, **[Application Document Reference 6.4.8 – Slough Multifuel Extended Phase 1 Habitat Survey Report]**), generally limited in extent (overall less than 0.1ha) to small areas of planting beds around the Site peripheries as described below and shown in **Figure 10.3 [Application Document Reference 6.3.16 – Extended Phase 1 Habitat Survey Map]**

- Introduced Shrubs – several small areas of introduced shrubs were located within the north and east areas of the Site (0.03ha, 1% of the Site). Two lines of managed ornamental shrubs 2m in height ran parallel to both the north and south of Edinburgh Avenue to the south of the cooling towers. A small patch of wall cotoneaster (Cotoneaster horizontalis) was found to the south-east of the cooling tower (CT8) directly adjacent to the north of Edinburgh Avenue and two more wall cotoneasters were found in the north-east corner of the Site, surrounding the car park, and included three cherry (Prunus species) trees.
- Species Poor Hedgerow with Trees (0.01ha, 0.3% of the Site) – an ornamental hedgerow bordered a car park in the south of the site, predominantly made up of beech with occasional ash trees.
- Ephemeral / short perennial vegetation (0.01ha, 0.3% of the Site) – the fence line along the southern side of Edinburgh Avenue comprised low-growing ephemeral grassland comprising of ragwort (Jacobaea vulgaris) and black horehound (Ballota nigra), with a small area of bramble stems (Rubus fruticosus aggregate) also present. A 3m2 stand of buddleia (Buddleia davidii)) was also present.
- Poor semi-improved grassland (0.02ha, 0.4% of the Site)– there was a small patch of amenity grass composed mainly of 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 of the Site. Buddleia and berberis (a species of Berberis) were present roughly evenly spaced along the fence.

10.6.11 The future baseline for the Site, consisting of the completed Consented Development, will have a limited extent of landscaping. It will be almost exclusively comprised of buildings and hardstanding, retaining the majority of the landscaping described above.

10.6.12 Some soft landscaping reinforcements are detailed within the landscaping proposals for the Consented Development (Weedon Architects, 2021, 2020). The following are proposed within the Consented Development;

- "A living wall [approximately 42m in width and 1.8m in height] has been indicated to the North Elevation of the Staff Facilities building (or administration building);
- installation of a pre-grown green screen system to the east portion of the ramp with access from the adjacent car park to provide a green buffer to the parking area
- a biodiverse area to the south of the workshop, including species rich grass with a mix of native bulb and perennial planting".

10.6.13 Additional off-site planting to enhance habitats in the adjacent area (i.e., along the surrounding roads was also proposed as part of the Consented Development as follows:

- "Several blocks of shrub planting will be included to Fairlie Road providing an additional landscape element to the existing tree and hedge planting to the east of the Fibre Fuel process plant;
- Infill planting will also be included to the north of the Gas Compound, helping to screen the security fencing and extend the green links".

10.6.14 Buildings, hardstanding, introduced shrubs and the localised shrubs were assessed overall as being of Negligible value only, as they are common and widespread habitats.

10.6.15 No notable habitats (i.e., Habitats of Principal Importance under the NERC Act 2006) were present within the adjacent areas.

10.6.16 The negligible value of the future baseline habitats means that there is no potential for the Proposed Project to generate significant effects, and therefore effects on habitats have been scoped out of the assessment.

Protected and Notable Species

Breeding Birds

10.6.17 Surveys for the breeding bird assemblage were carried out in 2012 and again in 2018 (refer to **Appendix 10E [Application Document Reference 6.4.12 – Confidential Peregrine Falcon Appendix].** Both surveys returned a relatively narrow assemblage of breeding birds associated with the buildings and soft landscaping of the Site and surrounds. For full survey details, refer to the species survey report appendices (refer to **Appendix 10E [Application Document Reference 6.4.12 – Confidential Peregrine Falcon Appendix].** These surveys are still valid as the overall habitat suitability of the Site for nesting birds has not changed (i.e., comprised of buildings and hardstanding with limited vegetated habitats within an urban, industrial area).

10.6.18 Notable bird species (i.e., listed as Red or Amber Listed Birds of Conservation Concern (BoCC) (Stanbury *et al.* 2021)) recorded within or adjacent to the Site included peregrine falcon (*Falco peregrinus*), herring gull (*Larus argentatus*), lesser black-backed gull (*Larus fuscus*), swift *(Apus apus*), grey wagtail (*Motacilla cinerea*) wood pigeon (*Columba palumbus*), dunnock (*Prunella modularis*) and starling (*Sturnus vulgaris*).

10.6.19 A summary of the species recorded from previous surveys is provided within Table 10.8.

Table 10.8. Breeding Bird Assemblage Recorded within Site

Common Name	*Latin Name*	*Notable Status (e.g., BOCC)*	*2012 Peak Count*	*2018 Peak Count & Breeding Status*
Blackbird	*Turdus merula*	BOCC Amber / NERC Section41	1	1 Probable - singing
Carrion Crow	*Corvus corone*	-	1	1 Possible
Collared Dove	*Streptopelia decaocto*	-	0	1 Possible
Dunnock	*Prunella modularis*	BOCC Amber / NERC Section 41	1	2 Probable - singing
Feral Pigeon	*Columba livia*	-	12	42 Confirmed – calls from young birds
Goldfinch	*Carduelis carduelis*	-	3	1 Probable - singing
Grey Wagtail	*Motacilla cinerea*	BOCC Red	0	3 Confirmed - fledged young
Herring Gull	*Larus argentatus*	BOCC Red	5	5 No evidence
Lesser Black-backed Gull	*Larus fuscus*	BOCC Red	6	4 No evidence
Magpie	*Pica pica*	-	1	1 Possible
Robin	*Erithacus rubecula*	-	1	1 Probable - singing

Common Name	*Latin Name*	*Notable Status (e.g., BOCC)*	*2012 Peak Count*	*2018 Peak Count & Breeding Status*
Pied Wagtail	*Motacilla alba yarrellii*	-	2	1 Probable - singing
Peregrine	*Falco peregrinus*	WCA Schedule 1	3	2 Probable – pair observed and courtship
Red kite	*Milvus milvus*	WCA Schedule 1	0	-
Starling	*Sturnus vulgaris*	BOCC Red /NERC S41	3	4 Possible
Swift	*Apus apus*	BOCC Amber	2	0
Wood Pigeon	*Columba palumbus*	BOCC Amber	8	6 Confirmed - fledged young

(BOCC = listed as Red or Amber Listed Birds of Conservation Concern (BoCC) (Stanbury et al. 2021); NERC = species of principal importance listed on Section 41 of the NERC Act) ; WCA = listed on Schedule 1 of WCA)

10.6.20 The future baseline consists of buildings and small areas of soft landscaping and so provides habitats and nesting opportunities of similar value to that present during the 2012 and 2018 surveys.

10.6.21 The species assemblage (in terms of overall numbers and notable species) has been assessed overall as Local importance.

10.6.22 This assessment excludes peregrine falcon which is addressed in the confidential Appendix (refer to **Appendix 10E [Application Document Reference 6.4.12 – Confidential Peregrine Falcon Appendix].** Peregrine falcon has been assigned a valuation of County importance.

Bats

10.6.23 Commuting, foraging and roosting bats were scoped out of the Environmental Statement (URS, 2013) for the Consented Development on the basis that "… *the habitats on site do not provide suitable foraging habitat or commuting corridors and the surrounding area provides equally poor habitat for bats, due to the lack of green spaces*". No Special Areas of Conservation (SAC) designated for bats were identified within the desk study area (15km).

10.6.24 Previous emergence and re-entry surveys carried out by AECOM in 2018 to inform site demolition for the consented Development also recorded no bat activity within the Site (refer to **Appendix 10C [Application Document Reference 6.4.10 – SSE Bat Survey Report]).**

10.6.25 Limited records of bats were returned from the 2022 Extended Phase 1 Habitat data search (refer to **Appendix 10A [Application Document Reference 6.4.8 – Slough Multifuel Extended Phase 1 Habitat Survey Report])** mostly of common (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus)* but with individual records of noctule (*Nyctalus noctula*) and unidentified Myotis species bat. The majority of records were located more than 1km from the Site and were associated with residential areas, parks and churches.

10.6.26 Existing and future baseline habitats offer limited foraging or roosting opportunities and are generally isolated from habitat linkages to better quality habitats. Even for urban and light tolerant species such as pipistrelle foraging, and roosting opportunities are limited on Site and in the immediate surrounding habitats. The previous 2012 Environmental Statement had scoped out bats from detailed assessment on the same grounds

10.6.27 The value of the Site for commuting, foraging and roosting bats has therefore been assessed as Negligible.

10.6.28 Impacts on bats are therefore unlikely to generate significant effects and have therefore been scoped out of the subsequent assessment.

Invasive non-native species

10.6.29 One invasive non-native species (wall cotoneaster (*Cotoneaster horizontalis*) was recorded on the Site as listed in Schedule 9 of the Wildlife and Countryside Act (as amended) during the 2022 Extended Phase 1 Habitat Survey, which makes it an offence to cause this species to spread or otherwise grow in the wild. Wall cotoneaster was previously recorded in the baseline of the Consented Development ES. Wall cotoneaster was found in two areas within the Site (the northern planting beds along Edinburgh Avenue and behind the offices, surrounding the car park (refer to **Figure 10.3 [Application Document Reference 6.3.16 – Extended Phase 1 Habitat Survey Map]).** 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.

10.6.30 Limited habitats are present in the local area which would allow this species to limit biodiversity through outcompeting native species, though its presence enables further spread by bird dispersal. Given the small areas of wall cotoneaster and the low risk of spreading, there is no need for removal as provides positive value for wildlife but mitigation measures are proposed to prevent spreading (see below).

10.7 Embedded Design Mitigation

10.7.1 This section describes the embedded and good practice mitigation that has been incorporated into the Proposed Project design or assumed to be in place before undertaking the assessment. This embedded mitigation is necessary for the Proposed Project. Some of the embedded mitigation measures described in this ES are already secured as part of the Consented Development, and the DCO proposes to also require the Proposed Project to comply with them. This section may also identify some mitigation measures which are in place as part of the Consented Development and which are relevant to the topic being assessed, but which are not required for the Proposed Project and therefore are not 'embedded mitigation' for the purpose of the assessment of the Proposed Project. Such measures are described in order to provide context of the future baseline against which the Proposed Project is being assessed.

Construction

10.7.2 A Construction Environmental Management Plan (CEMP) has been submitted and approved by SBC in line with the Consented Development. The existing approved CEMP measures will reduce the level of indirect effects (e.g., noise, dust and vibration) upon local ecological receptors. The CEMP (refer to **Appendix 2A [Application Document Reference 6.4.4 - Existing CEMP for Consented Development]**) is appropriate for the Proposed Project as it will require similar construction work in the same location.

10.7.3 A fauna management plan (SSE, 2019) was previously produced and approved by SBC in line with the Consented Development to mitigate for the presence of protected species during the construction of the Consented Development. This management plan details the requirement for pre-demolition nesting bird checks as well as the potential for localised disturbance on nesting birds (primarily peregrine falcon) in the adjacent area while recognising nesting birds are habituated to the ongoing high levels of disturbance associated with the day-to-day operation of the SHP facility. The fauna management plan is still appropriate as the Proposed Project works (i.e., internal works and elevated pipe installation) will not differ from the impacts identified by the Consented Development.

Operation

10.7.4 The following embedded mitigation measures for air quality are described within **Chapter 8: Air Quality [Application Document Reference 6.2.8 – ES Chapter 8]** of this ES which is applicable to the assessment of air quality impacts upon ecological receptors.

- IED/ BAT-AEL Emission Limit Value (ELV) Compliance

10.7.5 The Proposed Project will be designed as an additional element to work with the Consented Development such that process emissions to air comply with the ELV (Emission Limit Value) requirements specified in the IED (EU Industrial Emissions Directive). This will be regulated by the EA through the Environmental Permit required for the operation of the facility as a whole (i.e., the Consented Development and the Proposed Project).

Decommissioning

10.7.6 The Proposed Project will become integral to the operation of the Slough Multifuel Facility and would therefore be decommissioned at the same time as the Consented Development, integrated into to the same decommissioning programme and without additional impacts.

10.8 Assessment of Likely Impacts and Effects

10.8.1 The section details an assessment of likely impacts and effects, sub-divided between construction, operation, and decommissioning noting that demolition has been completed under the Consented Development which is currently under construction.

Assessment of Likely Impacts and Effects (Construction and Decommissioning)

10.8.2 The construction of the Proposed Project is expected to last two months and is expected to be parallel with the end of construction of the Consented Development. This is anticipated to occur in Q1 2024. The decommissioning of the Proposed Project will take place at the same time as the Consented Development.

Nature Conservation Designations

10.8.3 The nearest designated site to the Proposed Project is Haymill Valley LNR/LWS, located approximately 800m to the west of the Site.

10.8.4 Impacts from dust, noise, lighting, and human disturbance are usually very localised to a construction and decommissioning site, typically occurring within less than 100m radius. Due to the distance of all the non-statutorily designated sites from the Site (in combination with the urban and industrial land use in-between) potential impacts from construction dust, noise, lighting, human disturbance and surface water will be buffered or screened and will therefore result in a **Negligible adverse** effect. It should also be noted that the air quality impact on this (and other) designated sites was scoped out of the assessment of **Chapter 8 Air Quality [Application Document Reference 6.2.8 – ES Chapter 8]** of this ES (refer to Section 10.5 Stakeholder Engagement of this chapter).

10.8.5 The previous 2012 Environmental Statement assessment of construction traffic routing in relation to designated sites for the Consented Development is still applicable and is as follows:

"Demolition and construction HGV traffic will be routed along Farnham Road/Edinburgh Avenue, A4 and Dover Road or A4 and Leigh Road. The route along the A4 and Dover Road will pass approximately 300m to the south of the Haymill Valley LNR and it is therefore predicted that this will result in a negligible effect on the Haymill Valley LNR."

10.8.6 Impacts from construction traffic routing upon designated sites are therefore assessed as **Negligible adverse**.

10.8.7 Other construction and decommissioning phase impacts (i.e., noise, dust, vibration) upon designated sites are also considered to be **Negligible adverse.**

Ancient Woodland and Notable Habitats

10.8.8 Note that construction and decommissioning impacts upon ancient woodland and notable habitats will occur at a similar scale as for designated sites. Construction traffic routing and indirect construction and decommissioning impacts (i.e., noise, dust, vibration) will be limited (or non-existent) due to the distance of the two nearest ancient woodland sites from the Site (1.8km and 2km) and the lack of adjacent notable habitats. Impacts are therefore assessed as **Negligible adverse**.

Breeding Birds

10.8.9 Demolition was completed as part of the Consented Development works and this removed some availability of breeding bird habitat as a result of the removal of on-site buildings.

10.8.10 The temporary loss of nesting features for birds through vegetation removal to facilitate construction and associated disturbance will occur as part of the Consented Development and is expected to last for 3-4 years. The two-month construction period for the Proposed Project, whether it takes place simultaneously or after the Consented Development construction is complete, will not significantly alter the impacts identified for the Consented Development.

10.8.11 The Proposed Project impacts and mitigation would not be significantly different from those identified for the Consented Development, even if the construction works are not in parallel and/or are delayed by a number of years (up to 5 years as allowed by the DCO). Some minor and localised disturbance would occur as part of the delayed Proposed Project however this would be highly limited in extent and duration. As noted above decommissioning of the Proposed Project would take place at the same time as decommissioning of the Consented Development.

10.8.12 The additional duration of the Proposed Project construction, if not carried out at the same time as the Consented Development construction, is considered to be a short-term effect which is **Negligible adverse** and unlikely to adversely affect the conservation status of bird populations as habitat suitability is likely to remain the same (not improve). The Negligible adverse effect would also be expected for the construction of the Proposed Project if it is undertaken simultaneously with the Consented Development. Decommissioning of the Proposed Project and Consented Development would occur simultaneously, and a Negligible adverse effect would be expected.

10.8.13 Note that impact and effects for peregrine falcon are provided separately as confidential appendices (refer to **Appendix 10E [Application Document Reference 6.4.12 – Confidential Peregrine Falcon Appendix]).**

Non-native Invasive Species

10.8.14 The presence of wall cotoneaster places a legal obligation (due to as listed in Schedule 9 of the Wildlife and Countryside Act (as amended)) to avoid its spread into the wild. This species can have significant effects on ecosystem functioning and biodiversity by outcompeting native species. The risk of wall cotoneaster onsite being spread to the wild is very low due to the limited extent

of it that is present on site and the fact that the location where it occurs will be subject to landscape works only as part of the Consented Development. However, as described above this species also provides benefits for wildlife (insects and birds).

10.8.15 On this basis of these legal obligations, it is proposed 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.

10.8.16 Likewise, measures are proposed 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.

10.8.17 Provided that the above measures are employed it is not expected that any spread of this invasive non-native species into the wild will occur and therefore there would be **no effect**.

Assessment of Likely Impacts and Effects (Operation)

Nature Conservation Designations

10.8.18 An air quality impact assessment has been undertaken by AECOM (refer to **Chapter 8: Air Quality** of this ES **[Application Document Reference 6.2.8 – ES Chapter 8]** to determine whether there would be any likely significant effects on statutorily designated sites as a result of atmospheric emissions from the operation of the Proposed Project. The nearest nationally and locally designated sites have been scoped out of assessment (due to distance and limited anticipated effect) and so internationally designated sites have been assessed within the Habitat Regulations Assessment No Significant Effects report (refer to **Appendix 10B**, **[Application Document Reference 6.4.9 – No Significant Effects].**

10.8.19 The significance of effects associated with emissions (in particular nitrogen oxides, ammonia (having impact through nutrient nitrogen and acid deposition and sulphur dioxide) from the Proposed Project on designated nature conservation sites were modelled to inform impact assessment. The full results are presented in Tables 8A.50 to 8A.57 of **Appendix 8A [Application Document Reference 6.4.6 – Air Quality Technical Appendix]**).

10.8.20 The Habitat Regulations Assessment No Significant Effects report (refer to **Appendix 10B [Application Document Reference 6.4.9 – No Significant Effects].**concluded that the Proposed Project (even using the worst-case 10.5MJ/kg emissions) 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. For those pollutants where the total pollutant concentration/deposition rate exceeds the critical level or load, the 'in combination' effect falls below the '1% of the critical level/load' threshold identified by Natural England as denoting an imperceptible impact. Moreover, even that dose stems entirely from the Consented Development rather than the Proposed Project, which has no emissions. There are no other potential impact pathways that would link the Proposed Project to any European sites.

10.8.21 As a result, the operational emissions of the Proposed Project are assessed as giving rise to a **No effect** on all designated sites.

10.8.22 The previous 2012 Environmental Statement assessment of operational traffic routing in relation to designated sites is still applicable as follows:

"All commercial vehicles during the operational phase of the Proposed Project shall use one of the following routes; Farnham Road/Edinburgh Avenue, A4 and Dover Road or A4 and Leigh Road. The route along the A4 and Dover Road will pass approximately 300m to the south of the Haymill Valley LNR, however traffic emissions are imperceptible approximately 150-200m from a major road, and therefore it is predicted that this will result in a negligible effect on the Haymill Valley LNR".

10.8.23 Impacts from operational traffic routing upon designated sites are therefore assessed as having **No effect**.

Ancient Woodland

10.8.24 An air quality impact assessment has been undertaken to determine whether there would be any likely significant effects on the Ancient Woodland (AW) site as a result of emissions during operation (refer to **Chapter 8: Air Quality [Application Document Reference 6.2.8 – ES Chapter 8]** of this ES. Note that while the air quality impact assessment has used a 100% critical level threshold in accordance with Environment Agency permitting requirements, for the purpose of ecological assessment, a 1% level has been assessed as for the designated site assessment.

10.8.25 The Proposed Project itself will have no emissions. Even when the Consented Development is considered (using the worst-case 10.5MJ/kg emissions) there will be no likely significant air pollution effect on any modelled areas of ancient woodland. As a result, air quality emissions from operation of the Proposed Project are assessed as having **No effect** on ancient woodland

Habitats

10.8.26 The limited extent of existing baseline habitats (<0.1ha) comprised primarily of ornamental planting beds, introduced shrubs and street trees. The future baseline incorporates habitat enhancement as part of the Consented Development (i.e., further boundary planting, green walls and areas of biodiverse planting). It also provides offsite enhancement in the form of 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 as part of the Consented Development.

10.8.27 [The Proposed Project is restricted in providing further habitat enhancement above that for the Consented Development, as the nature of the Proposed Project prevents further incorporation of habitats such as green roofs and walks (due to health and safety risks from on-site operations).] The only aspect of external works for the Proposed Project is the addition of a short section of above ground pipeline, which offers no potential for added ecological enhancement.

10.8.28 Due to the very limited habitat quantum present within the future baseline and the limited impacts of the Proposed Project no significant effect is expected upon habitats, being a **Negligible** effect.

Breeding Birds

10.8.29 It is considered that there would be no potential effects on breeding birds during the operational phase of the Proposed Project, as the disturbance effect from the operation Proposed Project would be equivalent to the future baseline.

10.8.30 The Proposed Project is broadly equivalent to the Consented Development other than the addition of a single elevated pipe and changes to the internal workings of the facility.

10.8.31 No additional mitigation is therefore planned for this phase of works and the effect is considered to be **No effect**, which includes peregrine falcon.

Additional Mitigation and Enhancement Measures

10.8.32 Due to the limited extent of the Proposed Project mitigation and enhancement is limited beyond those provided as part of the Consented Development.

Peregrine Falcon

10.8.33 A construction phase monitoring is detailed within the **Appendix 10E [Application Document Reference 6.4.12 – Confidential Peregrine Falcon Appendix].**

10.9 Residual Effects and Conclusions

Residual Effects (Construction and Decommissioning)

10.9.1 Taking into consideration the implementation of the mitigation measures outlined above, there are assessed to be no significant residual ecological effects as a result of the Proposed Project during the construction either on or off site.

10.9.2 Decommissioning effects will be similar or less than those produced by construction for all receptors and decommissioning of the Proposed Project will be indistinguishable from that of the Consented Development. As a result, there is assessed to be no significant residual ecological effects as an outcome of the Proposed Project during the decommissioning either on or off site

Residual Effects (Operation)

10.9.3 Taking into consideration the implementation of the mitigation measures outlined above, there will not be any significant residual ecological effects as a result of the Proposed Project during operation.

Table 10.9 Summary of Residual Effects (Operation)

Receptor	*Value*	*Description of Impact*	*Magnitude of Impact*	*Effect with Embedded Mitigation*	*Additional Mitigation*	*Residual Effect and Statement of Significance*
Designated Sites	National to Borough	Indirect effects due to changes in air quality during operation	Permanent duration (lifecycle of Proposed Project) but with no effect on habitat quality	Negligible	Embedded air quality mitigation	Negligible Not significant

10.10 Cumulative Effects

10.10.1 The assessment of the Proposed Project has not identified any adverse effects on ecology greater than negligible significance. There is therefore not considered to be any potential for cumulative effects when considering impacts from other nearby schemes.

10.10.2 The Habitat Regulations Assessment No Significant Effects Report (refer to **Appendix 10B [Application Document Reference 6.4.9 – No Significant Effects]** has confirmed that no likely significant effect from air quality will result from the Proposed Project either alone or in combination with other plans and projects for designated sites as follows;

"No other plans or projects have been identified that would operate on these sites 'in combination' with the Scheme [Proposed Project]. As such the total forecast ammonia, nitrogen and acid dose is below 1% of the critical level or load and in line with Natural England guidance a conclusion of no likely significant effect can be reached. Therefore, no likely significant will result from these pollutants either alone or in combination with other plans and projects".

10.10.3 No other proposed developments or development plans have been identified that can potentially result in cumulative ecological effects with the Proposed Project.

10.11 References

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