

NAVIGATOR QUARTER, LAND ADJACENT TO SOUTHAMPTON AIRPORT

ENVIRONMENTAL STATEMENT (VOLUME 3)

TECHNICAL ANNEX E. ECOLOGY

HYBRID PLANNING APPLICATION

JUNE 2025

blocwork (Eastleigh) LLP
&
Southampton International Airport Ltd

NAVIGATOR QUARTER

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V/24/98474 Navigator Quarter Scoping

Ecology comments 20.12.24

EIA Scoping Report, Nov 2024

Section 2.4 Noise and vibration - Ecological receptors on and adjacent to the site are noise and vibration sensitive receptors which must be recognised in the assessment.

Tables 5.1 Initial Checklist of Topics and Table 5.2 Likelihood of Significant Effects -

Climate change – the development would also lead to a loss of carbon stores (above and below ground) with the removal of grassland and woodland.

Ecology – the site also adjoins the Itchen Valley Nature Reserve SINC

Noise and vibration – site activities during construction and operational phases have the potential to also affect sensitive onsite and adjacent ecological receptors. Noise and vibration impacts cannot be ruled out from an ecological perspective and must be fully assessed in the Ecology chapter.

Appendix D Ecology

Section 2.3, Table 2.1 – There is no mention of any veteran or ancient tree as having been identified on site to date. Should any veteran, ancient or significant tree be found during further surveys (such as the arboricultural survey or further habitat surveys) then it must be considered as an irreplaceable habitat within the assessment.

Sufficient offsite ecological survey data must be obtained to enable an effective impact assessment to be carried out.

The EIA must also assess additional potential impacts during the operational phase of the site (Sections 3.2 and 3.3):

- Disturbance to protected/notable species and habitats (visual, noise, vibration, lighting) – on and off site - is a potential operational impact.
- Fragmentation of habitat on and adjacent to the site resulting from land take is a potential operational impact.
- Shading on retained onsite and offsite habitats (proposed building heights up to 22m) is a potential operational impact.

It is noted that noise and vibration impacts are proposed to be scoped out of the EIA. This is from a residential perspective, not an ecological one. Appendix H (Noise and Vibration) states that impacts may arise from onsite building services plant noise and onsite vehicle movements. These potential impacts on identified onsite and nearby offsite sensitive ecological receptors must be assessed.

Appendix E Flood Risk and Drainage

Three forms of naturalised filtration in a treatment train for water quality purposes will be required for a site of this size (policy DM6). We do not support underground attenuation features which do not adhere to the principles of SuDS. Above ground natural treatment and attenuation should be provided. These can be designed to not permanently hold water and to have an appropriate drain down time for proximity to the airport. Extensive pervious surfacing would be supported.

Sarah Boyd, Ecologist

Appendix 10.2
Relevant Legislation & Planning Policy

This document is intended to provide summary information on legislation and planning policy relevant to biodiversity in England and is believed to be correct at the date of publication, but should not be relied upon as a substitute for professional legal advice.

LEGISLATION

The Environment Act 2021

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

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

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

The Act made provision for 10% biodiversity gain to become a condition of planning permission in England, through amendments to the Town and Country Planning Act 1990. These amendments came into force on the 12th February 2024 (delayed to 2nd April 2024 for 'small sites') and are implemented through a series of new statutory instruments collectively referred to in this document as the 'Biodiversity Net Gain Regulations' (detailed further below). The 10% biodiversity gain is measured through a biodiversity metric published by the Department of the Environment, Food and Rural Affairs (DEFRA) on behalf of the Secretary of State. The Act also establishes Biodiversity Net Gain as a requirement for Nationally Significant Infrastructure Projects (NSIPs).

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

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

The Act also created a new legal vehicle known as a 'Conservation Covenant' which is a voluntary, legally binding private agreement between landowners and responsible bodies (the latter designated by the Secretary of State) which conserve the natural or heritage features of the land, enabling long-term

conservation. Conservation Covenants are designed to 'run with the land' when it is sold or passed on and are intended to become a primary mechanism for the delivery of Biodiversity Net Gain (BNG).

The Act provides new powers for the Government to amend in future Regulation 9 and Part 6 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations') – but "only if satisfied that the regulations do not reduce the level of environmental protection provided by the Habitats Regulations".

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

The Biodiversity Net Gain Regulations

The Biodiversity Net Gain provisions of the Environment Act 2021 referred to above were implemented through several pieces of secondary legislation, collectively referred to in this document as the 'Biodiversity Net Gain Regulations', that came into force on 12 February 2024 (delayed to 2 April 2024 for sites meeting the published definition of a 'small site'). The Biodiversity Net Gain Regulations are as follows:

- The Biodiversity Gain (Town and Country Planning)(Modifications and Amendments)(England) Regulations 2024
- The Biodiversity Gain (Town and Country Planning)(Consequential Amendments) Regulations 2024
- The Biodiversity Gain Site Register Regulations 2024
- The Biodiversity Gain Site Register (Financial Penalties and Fees) Regulations 2024
- The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024
- The Biodiversity Gain Requirements (Exemptions) Regulations 2024
- The Environment Act 2021 (Commencement No. 8 and Transitional Provisions) Regulations 2024

Collectively, these Regulations implement the requirement under the Environment Act 2021 for a 10% biodiversity gain, as measured by a metric, to become a condition of planning permission in England.

A publicly accessible register of Biodiversity Gain Sites was published on the date that these Regulations came into force, along with the Statutory Biodiversity Metric (produced by Defra on behalf of the Secretary of State) and associated guidance (see below).

The required biodiversity gain can be delivered on and/or offsite (subject to adherence to a biodiversity net gain hierarchy detailed in guidance – see below) and establishes the basis for purchasing off-site credits to meet the 10% obligation if required. In most cases the land used to deliver biodiversity gain must be maintained for at least 30 years, and the biodiversity gain planning condition requires a

Biodiversity Gain Plan to be submitted to and approved by the planning authority prior to commencement of development.

Off-site biodiversity gains must be secured either through a Section 106 Agreement or Conservation Covenant, and 'significant' on-site biodiversity gains must be secured either through a Section 106 Agreement or a planning condition.

The legislation also clarifies that the baseline biodiversity value of a site should be taken from the date on which planning consent is granted, unless otherwise agreed with the LPA. This excludes any activities undertaken without planning permission (or other relevant permissions) after 30 January 2020 which have had the effect of reducing the biodiversity value of the land. In such cases, "the pre-development biodiversity value is to be taken to be its biodiversity value immediately before the carrying on of the activities."

Through the above Regulations, the Government has established an initial list of 'irreplaceable habitats' that must be recorded in the metric if present on site but which cannot be 'traded' through the biodiversity net gain process. Defra has confirmed the intention to consult on this initial list of habitats during 2024 and adjust it if necessary.

Guidance on Biodiversity Net Gain

To help those involved in the planning process, the Defra and the Department for Levelling Up, Housing and Communities (DLUHC) have published guidance on the technical aspects of biodiversity net gain and planning practice guidance respectively, available at the links below:

https://www.gov.uk/guidance/understanding-biodiversity-net-gain

https://www.gov.uk/guidance/biodiversity-net-gain

Biodiversity net gain (BNG) is already enshrined in the key principles of the National Planning Policy Framework (NPPF), and some local planning policies include a requirement to deliver net gain above the minimum statutory 10% figure.

In addition to the above, British Standard BS: 8683:2021 *Process for Designing and Implementing Biodiversity Net Gain – Specification* builds on and adds to previous UK Good Practice Guidance on Biodiversity Net Gain produced by CIEEM, CIRIA and IEMA.

In addition to habitat creation or enhancement undertaken to achieve biodiversity net gains, the NPPF (and often local policy) also seeks general biodiversity enhancement measures, which often include measures not directly accounted for in the Defra Metric, such as the provision of nest boxes.

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

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

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

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

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

Wildlife & Countryside Act 1981 (as amended)

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

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

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

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

Countryside & Rights of Way Act 2000

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

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

The Natural Environment and Rural Communities Act 2006

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

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

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

The Water Environment Regulations 2017

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

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

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

SITES DESIGNATED FOR THE CONSERVATION OF NATURE

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

Statutory Sites: International

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

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

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

Ramsar sites are wetlands of international importance designated under the Ramsar Convention held in Iran in 1971 and although not covered under the Habitats Regulations they are, as a matter of national planning policy, subject to the same strict protection as SACs and SPAs. The majority of terrestrial Ramsar sites in England are also notified as SPAs, SACs and/or Sites of Special Scientific Interest (SSSIs).

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

Any plan or project considered likely to affect an International site (SAC, SPA or Ramsar) must be subject to a Habitats Regulations Assessment (HRA), as set out under Regulation 63 (and Regulation 105 in respect of Land Use Plans) of the Conservation of Habitats and Species Regulations 2017 (as amended) and the National Planning Policy Framework (NPPF) 2024.

The 'competent authority' determining whether a plan or project should proceed carries out the HRA, but the onus is on the developer to provide the necessary information to inform this process, usually in the form of a report.

Under the Conservation of Habitats and Species Regulations 2017 (as amended), the competent authority must determine in the first instance whether a proposed development is 'likely to have a significant effect on the International Site, either alone or in combination with other plans and projects'. This stage of the HRA process is known as 'screening', and 'measures intended to avoid or reduce the harmful effects' of the subject plan or project cannot be taken into account at this stage.

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

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

- to maintain or, where appropriate, restore habitats and species listed in Annexes I and II of the Habitats Directive within the UK's territory to a favourable conservation status (FCS); and
- contribute to ensuring, in their area of distribution, the survival and reproduction of wild birds and securing compliance with the overarching aims of the Wild Birds Directive.

The appropriate authorities must also have regard to:

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

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

Depending on which entity is responsible for authorising a plan or project, competent authorities can include (but are not limited to) local planning authorities, planning committees, the Secretary of State and statutory agencies such as Natural England and the Environment Agency.

Statutory Sites: National

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

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

Sites of Special Scientific Interest

The Wildlife and Countryside Act 1981 (as amended) and the CRoW Act 2000 provide the primary legal basis for the protection of Sites of Special Scientific Interest (SSSIs). These sites have been designated to capture the best examples of England's flora, fauna, geological or physiographical diversity. Natural England are responsible for assessing the condition of these areas and agreeing management plans for their conservation.

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

Natural England has produced, for every SSSI in England, a list of 'Operations Requiring Natural England's Consent' (ORNECs). Activities listed as ORNECs cannot be carried out within the relevant SSSI unless Natural England has issued their written assent to the activity taking place.

National Nature Reserves

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

Statutory Sites: Regional/Local

Local Nature Reserves

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

Non-Statutory Sites

Local Wildlife Sites

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

Nature Conservation in Areas Outside Designated Sites

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

Habitats of Principal Importance in England

Fifty-six habitat types have been identified as Habitats of Principal Importance for the conservation of biodiversity in England under Section 41 (S41) of the NERC Act 2006. Although these habitats are not legally protected, the NPPF, Government Circular 06/05, good practice guidance, the NERC Act 2006 and the Environment Act 2021 place a clear responsibility on planning authorities to further the conservation of these habitats. They can be a material consideration in planning decisions, and so developers are advised to take reasonable measures to avoid or mitigate impacts to prevent their net loss and to enhance them where possible. Additional guidance to developers is typically provided in local level planning policy.

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

Networks of Natural Habitats

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

Hedgerows

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

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

Tree Preservation Orders

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

guidance on TPOs in relation to development is available from the Department for Levelling Up, Housing and Communities.

Ancient Woodland & Veteran Trees

Ancient woodlands are defined in England as areas continuously wooded since at least 1600 AD (although certain open areas such as rides and glades within woodlands are also considered part of a woodland and brief periods of tree cover removal will not remove ancient woodland status). Even an ancient wood which has been replanted may still have remnants of ancient woodland wildlife and historical features and has potential to be restored. For this reason, Natural England's Provisional Ancient Woodland Inventory (PAWI) draws a distinction between Ancient and Semi Natural Woodland (ASNW) and 'Plantation on an Ancient Woodland Site' (PAWS). The inventory also lists ancient pasture woodland.

Ancient woodland is not a statutory designation and does not provide legal protection, but local authorities are directed under the NPPF and National Planning Practice Guidance (NPPG) not to grant planning permission for any development that would result in the 'loss or deterioration' of irreplaceable habitats such as ancient woodland, ancient trees or veteran trees unless there are 'wholly exceptional reasons' and 'a suitable compensation strategy in place'. Local Planning Authorities must take into account Natural England and the Forestry Commission's *Standing Advice for Ancient Woodland and Veteran Trees,* available at: https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions

Surface & Ground Waters

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

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

Water Resources Act (WRA) 1991 (as amended)

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

SPECIES PROTECTION

Legally Protected Species

The species listed in the following subsections are protected by law in England. When preparing a planning application, it is essential to determine the presence or likely absence of legally protected species and the extent to which they may be affected by a proposed development. This can best be achieved by undertaking surveys early in the planning process. Impact avoidance and/or mitigation measures may be required to address any predicted impacts upon protected species and may

necessitate a the obtaining of a licence. The Government website offers standing advice from Natural England and DEFRA which can be applied to planning applications that affect protected species.

Bats

There are 18 species of bat native in the UK, seven of which are Species of Principal Importance in England under S41 of the NERC Act 2006. All bats and bat roosts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Bats are also a European Protected Species protected under the Conservation of Habitats and Species Regulations 2017 (as amended). It is an offence to:

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

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

Great Crested Newt

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

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

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

Hazel Dormouse

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

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

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

European Otter

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

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

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

Eurasian Beaver

The Eurasian Beaver *Castor fiber* is a European Protected Species under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). As a result of this protection, it is considered an offence to:

- Deliberately disturb a Beaver - this includes any action likely to impair their ability to survive, breed or rear their young
- Deliberately injure, capture or kill a Beaver;
- Damage or destroy the breeding site or resting place of a Beaver;
- Possess, control or transport a Beaver; and
- [offer to] Sell or exchange Beavers.

This applies whether the Beaver is alive or dead and includes Beaver parts and derivatives.

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

The Wildlife and Countryside Act 1981 (as amended) also prohibits the release of Beavers into the wild unless under licence, and makes it an offence to use any trap or snare for the purpose of killing, taking, restraining or injuring Beavers.

Reptiles

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

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

- Intentionally or deliberately kill, injure or capture Sand Lizards or Smooth Snakes;
- Intentionally, deliberately or recklessly disturb Sand Lizards or Smooth Snakes in such a way as to be likely to significantly affect the ability of any significant group of Sand Lizards or Smooth Snakes to survive, breed, or rear or nurture their young or the local distribution or abundance of either species;

- Intentionally or recklessly damage, destroy or obstruct any place used by Sand Lizards or Smooth Snakes for shelter or protection, or intentionally or recklessly disturb a Sand Lizard or Smooth Snake whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Sand Lizard or Smooth Snake;
- Keep, sell, or exchange Sand Lizards or Smooth Snakes or their eggs; and
- Deliberately take or destroy their eggs.

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

Water Vole

The Water Vole *Arvicola terrestris* is a NERC Act 2006 S41 Species of Principal Importance in England. The legal protection for Water Voles was increased in 2008 to fully cover the species under Section 5 of the Wildlife and Countryside Act 1981 (as amended). The legislation makes it an offence to:

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

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

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

Birds

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

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

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

European Badger

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

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

Wild Mammals

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

White-Clawed Crayfish

The White-Clawed Crayfish *Austropotamobius pallipes* is a NERC Act S41 Species of Principal Importance in England. Outside designated sites (e.g. SACs), the White-Clawed Crayfish receives limited protection under Schedule 5 (Sections 9.1, 9.5a and 9.5b) of the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended) and the Salmon and Freshwater Fisheries Act 1975. This legislation does not provide strict protection of individual crayfish or their habitats but it does prevent prohibit the capture of this species without a licence. A conservation licence must therefore be obtained from Natural England before conducting any mitigation involving the capture and handling of this species.

European Eel

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

Freshwater Fish

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

Licences for Development

Licences are required to permit activities prohibited under wildlife legislation, namely the disturbance or capture of protected species or damage to their habitats. Natural England is the licensing authority in England. Licences are only issued for certain purposes, which are set out in the legislation, and only where there is a valid justification. The licences most relevant to development scenarios are discussed below.

European Protected Species Mitigation Licences

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

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

Other Protected Species Mitigation Licences

Natural England can issue mitigation licences for reasons of “overriding public interest” in respect of animal and plant species listed on Schedules 5, 6 and 8 of the Wildlife and Countryside Act 1981 (as amended), excluding birds and European Protected Species (as these have separate licensing systems). In the context of development, the most relevant species are likely to include Adder, Grass Snake, Common Lizard, Slow-worm and several species of plant.

Applicants must demonstrate that the licence is for the purpose of overriding public interest, and also that there are “no other satisfactory solutions”. In practice, therefore, this type of licence is likely to be difficult to obtain for most types of development.

Conservation Licences

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

Badger Licences

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

Species of Principal Importance in England

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

Invasive Non-Native Species (INNS)

There are a number of species not ordinarily resident in the UK, such as Japanese Knotweed, Himalayan Balsam and others. Those which pose a significant threat, if uncontrolled, to our ecology and economy are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). For an offence to be committed, a species must be released or allowed to escape into the wild. For example, if a plant listed on Schedule 9 is not adequately controlled by a land owner, once they are aware that it is present, and the species is allowed to spread into adjoining areas, then this could potentially constitute an offence.

Further guidance on INNS can be found on the website of the GB Non Native Species Secretariat: https://www.nonnativespecies.org/

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

Species Control Orders

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

PLANNING POLICY & GUIDANCE

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

National Level

National Planning Policy Framework 2024

The National Planning Policy Framework (NPPF) 2024 sets out the Government's planning policies for England and how these should be applied in local-level policy and decision making. The NPPF has a clear "presumption in favour of sustainable development" (paragraph 11), with economic, social and environmental objectives. This presumption does not apply where a plan or project has failed the 'appropriate assessment' test under the Habitats Regulations (paragraph 195).

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

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

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and
- preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.

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

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

- if significant harm resulting from a development cannot be avoided, adequately mitigated or (as a last resort) compensated for, then planning permission should be refused;
- proposed development that is likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should normally be refused;

- planning permission should normally be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and ancient or veteran trees, unless there are 'wholly exceptional reasons' and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported, while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

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

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

Section 15 includes the following text on air quality:

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

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

Government Circular 06/05: Biodiversity and Geological Conservation

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

- The presence of protected species is a material consideration when determining a development proposal;
- Local authorities should consult with Natural England before granting permission, and consider imposing planning conditions or obligations to secure the long-term protection of the species;

- The presence of protected species, and the extent to which they may be affected by the proposed development, must be established before permission is granted;
- Given the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development.

Planning Practice Guidance

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

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

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

Other guidance

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

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

Regional Level

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

Local Level

The Eastleigh Borough Local Plan: Adopted 24 April 2022 (2016-2036):

- Policy DM1 – General Development Criteria: Requires that development proposals do not result in a net loss of biodiversity and, where possible, contribute to biodiversity enhancements
- Policy DM11 – Nature Conservation: Focuses on the protection, conservation, and enhancement of biodiversity, including designated sites, priority habitats, and species. It also addresses the need for appropriate mitigation and compensation measures
- Policy DM5 – Managing Flood Risk: Ensures that development does not increase flood risk and incorporates sustainable drainage systems, which can provide biodiversity benefits
- Policy DM6 – Sustainable Surface Water Management and Watercourse Management: Promotes the use of sustainable drainage systems (SuDS) and the protection of watercourses, contributing to biodiversity and ecological networks
- Policy DM14 – Strategic Footpath, Cycleway, and Bridleway Links: Encourages the development of green infrastructure that supports biodiversity and provides ecological connectivity
- Policy S11 – Nature Conservation: Emphasizes the importance of conserving and enhancing biodiversity across the borough, including the protection of designated sites and the promotion of biodiversity net gain.
- Policy S9 – Green Infrastructure: Supports the creation, protection, and enhancement of a multifunctional green infrastructure network, which includes biodiversity as a key component.

BIODIVERSITY PLANS AND STRATEGIES

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

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

National level

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

- Halt the decline in species abundance by 2030;
- Restore or create more than 140,000 hectares of wildlife-rich habitat outside protected sites by 2028;
- Improve the Red List Index for England by 2042;
- Achieve favourable condition for 48% of designated features in Marine Protected Areas by 2028;
- Complete update condition assessments for all SSSIs by 2028;
- Increase tree canopy and woodland cover by 0.26% by 2028;

- Reduce water pollution from agricultural nitrogen, phosphorus and sediments by at least 40% by 2038; and
- Reduce phosphorus loadings from treated wastewater by 80% by 2038.

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

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

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

Progress towards the National biodiversity targets are measured by the UK's Joint Nature Conservation Committee (JNCC) through a suite of biodiversity 'indicators', with annual reports published here: https://jncc.gov.uk/our-work/uk-biodiversity-indicators/

Blueprint for Halting and Reversing Biodiversity Loss: the UK's National Biodiversity Strategy and Action Plan for 2030

At the meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD) in Montreal in 2022, 196 countries agreed the Kunming-Montreal Global Biodiversity Framework (GBF). This framework, an ambitious set of four goals and 23 targets to halt and reverse biodiversity loss by 2030, sets out the shared pathway towards the vision of a world living in harmony with nature by 2050. The Blueprint for Halthing and Reserving Biodiversity Loss: The UK's National Biodiversity Strategy and Action Plan for 20230 (NBSAP 2030) sets out how the UK will implement each of the targets set by the GBG in the UK.

Approach to implementing the GBF in the UK and the UK Overseas Territories and Crown Dependencies (UKOTs and CDs)

Environmental policy is a devolved function in the UK, subject to a small number of reserved areas. This means that the four countries can implement the 23 targets of the GBF in a manner that suits their individual circumstances. However, all share the following priorities as described in the UK Biodiversity Framework (UKBF):

- Protecting and restoring nature;
- Sustainable use and resource management; and
- Mainstreaming and finance.

The UK-specific targets are set out in Annex A of the NBSAP 2030. These include ensuring that:

- At least 30% of degraded ecosystems are under effective restoration by 2030 (Target 2);

- At least 30% of inland, marine and coastal waters are under effective conservation and management by 2030 (Target 3);
- Urgent management actions are implemented to halt human-induced extinction of threatened species (Target 4);
- The impacts of invasive alien species are reduced by 2030 (Target 6);
- Risks and negative impacts of pollution from all sources are reduced by 2023 (Target 7);
- Area, quality, connectivity and access to green and blue space is significantly and sustainably increased through biodiversity-inclusive urban planning (Target 12); and
- Full integration of biodiversity and its multiple values into policies, regulations, planning and development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments and, as appropriate, national accounting (Target 14).

These targets were submitted to the Convention on Biological Diversity in August 2024. Progress towards targets will be monitored via a set of UK Biodiversity Indicators and reported on via an online tool, https://ort.cbd.int/national-targets?countries=gb.

Local level

Biodiversity Action Plans (BAPs)

While BAPs at the national level have now been superseded by *the UK Post-2010 Biodiversity Framework* and *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*, many county and district level BAPs still exist.

At the county level, the Hampshire Biodiversity Action Plan (HBAP), developed in partnership with the Hampshire Biodiversity Partnership, outlines priority habitats and species considered most threatened or locally significant. It supports the delivery of biodiversity targets across Hampshire and aligns with national objectives. Key priority habitats relevant to the site include lowland mixed deciduous woodland, wet grassland, reedbeds, and chalk rivers, all of which are particularly characteristic of the Itchen Valley landscape.

At the borough level, the Eastleigh Borough Council Biodiversity Action Plan (2012–2022) remains a key reference document. Although its formal timeframe has ended, its objectives are reflected in ongoing policy and strategic guidance, including the Council's more recent Biodiversity Strategy (2024–2034). The BAP identifies ten Priority Biodiversity Areas, including the Itchen Valley, and sets out specific actions for the protection and enhancement of habitats, ecological connectivity, and priority species. These local targets continue to underpin the Council's planning and green infrastructure strategies and remain useful in identifying opportunities for biodiversity net gain and landscape-scale conservation.

Together, these local BAPs inform the ecological context and priorities of the current development site and help shape appropriate mitigation and enhancement strategies to support compliance with planning policy and the aims of the Environment Act 2021.

Biodiversity Opportunity Areas (BOAs)

Local Nature partnerships have in most areas of England now identified BOAs and produced documentation setting out the existing features of ecological importance within those areas, and a state of how opportunities to enhance biodiversity could be actioned. These provide a useful starting point

when considering how individual planning applications might best go about contributing toward enhancements to the natural environment.

Local Nature Recovery Strategies (LNRSs)

In pursuance of obligations under the Environment Act 2021, the Secretary of State for the Environment, Food and Rural Affairs identified 48 ‘strategy areas’ that collectively cover the whole of England, and appointed a ‘responsible authority’ to produce an LNRS for each strategy area. An LNRS must contain a habitat map for the area and a statement of biodiversity priorities to include a descriptions of the opportunities that are available for recovering or enhancing biodiversity.

When complete, the LNRS for an area will effectively supersede earlier documents including local BAPs. The Defra Biodiversity Metric utilises multipliers to disincentivise development that causes the loss of habitats that are considered to be priorities under an LNRS for the area, and reward proposals that create or enhance them.

Southampton Airport – Navigator Quarter

Appendix 10.3: Biodiversity Net Gain Report

Prepared on behalf of

Blocwork (Eastleigh) LLP/SIAL

Final Report

27 June 2025

31/26-3D

Southampton Airport – Navigator Quarter

Appendix 10.3: Biodiversity Net Gain Report

Report Release Sheet

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Southampton Airport – Navigator Quarter

Appendix 10.3: Biodiversity Net Gain Report

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APPENDICES

Appendix 1 BNG Calculation

BIODIVERSITY GAIN VALIDATION STATEMENT

This Statement provides the minimum information required for Eastleigh Borough Council to validate the planning application for the Proposals, as set out in Article 7 of the Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended by The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024).

EPR hereby confirms that the Applicant believes that planning permission, if granted, would be subject to the biodiversity gain condition.

The on-site pre-development biodiversity value is taken to be the date that the Application is submitted. No activities resulting in a loss of on-site biodiversity value (degradation) have taken place between 30 January 2020 and this date.

A completed Statutory Biodiversity Metric Calculation Tool (published on 23rd July 2024) has been submitted with the Application as part of the Information for Biodiversity Net Gain Pack. This shows the calculations of the pre-development biodiversity value of the onsite habitat on the date of application. The baseline on-site biodiversity value is calculated as follows:

- 209.75 Area Habitat units
- 0 Hedgerow units
- 0 Watercourse units

Plans, drawn to an identified scale and showing the direction of North, are included within this document **(Maps 1, 2 and 3)** showing the on-site habitat existing on the date of application, including any irreplaceable habitat if present.

Southampton Airport – Navigator Quarter

Appendix 10.3: Biodiversity Net Gain Report

1. INTRODUCTION

Scope

1.1 This Technical Appendix sets out the details of the Biodiversity Net Gain calculations completed for the proposed development including:

- Assessment Methodology;
- Summary of evidence underpinning Metric decisions;
- Assumptions and Limitations;
- Headline Results;
- Summary of proposed significant on-site habitat enhancements;
- Overview of proposed arrangements for BNG delivery and monitoring.

1.2 It is equivalent to the 'BNG Design Stage Report' recommended by the Chartered Institute of Ecology and Environmental Management (CIEEM) in their Biodiversity Net Gain Report & Audit Templates guidance document (CIEEM, 2021a).

Description of Site

1.3 The application site is 34 hectares in size and located between the town of Eastleigh and the city of Southampton, falling within the boundary of Eastleigh Borough Council. Southampton Airport is located immediately to the south and west of the site, on the edge of the city's suburbs. To the immediate north of the site is a train depot, located at the convergence of trainlines from Southampton and Portsmouth. Sandwiched between the train depot land there is a residential area on Campbell Road, which is in a conservation area and Barton Park Industrial Estate is located beyond the depot to the north.

1.4 The site is formed of 2 plots, a larger area immediately adjacent to the Airport that is known as the South Plot, and an area of land to the north of this, known as the North Plot, which is separated from the South Plot by an area of landscape that has established on a now raised railway embankment that is now redundant and has become overgrown. The nearby railway lines form the northern boundaries to the application site, with the railway raised on an embankment.

Description of Development

1.5 The Proposals are described in the application documents as follows:

Hybrid Planning Application - Outline application for development of the land adjacent to Southampton Airport to provide employment floorspace of up to 92,000 sqm (GIA) within Use Classes E(g) (ii & iii), B2 and B8 with ancillary offices and areas for service yards, car parking, landscaping, ancillary buildings and associated activities, and access from Wide Lane (all matters reserved except for access). Full planning application for initial infrastructure works and construction of new access road including site levelling and other engineering works.

Legislation and Policy Context

1.6 A minimum 10% net gain in biodiversity, as measured by the Statutory Biodiversity Metric (DEFRA, 2024a,) is now a condition of most types of planning permission in England under the Environment Act 2021 and associated secondary legislation.

1.7 Guidance has clarified that where present on-site, the 10% gain requirement applies individually to three categories of habitat: 'Area Habitats', 'Hedgerows', and 'Watercourses'. This is measured in 'units' which can be delivered on-site, off-site, or a combination of both, and must be secured for a minimum of 30 years.

1.8 The National Planning Policy Framework (NPPF) (DLUHC, 2024) requires local plans to "identify and pursue opportunities for securing measurable net gains in biodiversity" and enhance the natural and local environment by "minimising impacts on and providing net gains for biodiversity".

Guidance

1.9 The following guidance documents have informed the BNG assessment and overall approach:

- Defra's Biodiversity Gain Guidance, available at: https://www.gov.uk/government/collections/biodiversity-net-gain;
- The Statutory Biodiversity Metric User Guide (DEFRA, 2024);
- The UK Habitat Classification Version 2.0 (UKHab Ltd, 2023);
- Biodiversity Net Gain. Good Practice Principles for Development – A Practical Guide (Baker et al., 2019);
- Biodiversity Net Gain Report and Audit Templates (CIEEM, 2021a);
- Good Practice Requirements for Delivering Biodiversity Net Gain (On- and Off-Site) (CIEEM, 2021b); and
- BS8683:2021 Process for designing and implementing Biodiversity Net Gain – Specification (BSI, 2021).

2. ASSESSMENT METHODOLOGY

Metric Version and Assessors

2.1 The Statutory Biodiversity Metric and Condition Assessments published July 23rd, 2024, were used for this BNG assessment.

2.2 The calculations were carried out by Andrew Cross BSc (Hons) MSc MCIEEM and Katrina Diedericks BSc (Hons), and reviewed by Alison Hogan BSc (Hons) MSc MCIEEM, all experienced ecologists and BNG practitioners.

Baseline Surveys

On-Site

2.3 Baseline habitat and condition assessment surveys were carried out by EPR botanist Andrew Cross BSc (Hons) The survey dates are as follows:

Table 2.1: Baseline habitat survey dates

Date	Survey Type	Surveyor(s)
November 2023	Grassland habitat survey	Andy Cross
September 2024	Grassland Habitat Survey and Condition Assessment	Andy Cross
April 2025	Habitat Survey and Condition Assessment	Andy Cross

2.4 Habitat mapping was undertaken according to the UK Habitat Classification v.2.0 methodology (UKHab Ltd, 2023) and translated into BNG habitat categories where necessary (**Map 1**).

2.5 Following the surveys, each area or length of habitat was assigned an individual 'Habitat ID' and mapped in ESRI ArcGIS software (**Maps 2**).

2.6 Detailed habitat descriptions, including species lists where appropriate, are set out in Technical Appendix 10.4 Botany.

Post-Development Plans

On-Site

2.7 The following plan produced by other technical consultants, submitted for approval with the Application, was used as the basis for the post-development calculations. These plans were imported into ArcGIS software and each line or polygon was assigned a BNG habitat type and target condition (**Map 3**):

- Illustrative Masterplan Landscape Proposals Drawing 1000 Rev 1.

Metric Inputs

2.8 As set out in the Statutory Metric User Guide (DEFRA, 2024), one of the key principles of the Biodiversity Metric is that "this biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice".

2.9 When completing a Metric, the assessor must therefore make a number of decisions based on available evidence (such as ecological survey data), professional judgement, and ecological expertise. The User Guide (DEFRA, 2024) also states that "Evidence for metric decisions should be provided and signposted within the 'User Comments' column of the biodiversity metric tool".

2.10 To ensure that the Metric Calculation Tool remains as user-friendly as possible, the following paragraphs expand upon the User Comments to provide more detail on the decisions behind the data entered into the Metric, where this is considered necessary and proportionate.

On-Site Habitat Type and Condition

Target Conditions

2.11 Target habitat conditions have been predicted with reference to the relevant Condition Assessment sheet (DEFRA, 2024b), with full details and justifications set out in the separate spreadsheet submitted with the Application.

2.12 The Target Conditions are considered to be realistic and achievable and will be delivered and maintained through the implementation of a Habitat Management and Monitoring Plan (HMMP), which will be submitted alongside the Biodiversity Gain Plan to discharge the general biodiversity gain planning condition, should consent be granted. A HMMP has not been submitted with this Application, as it is anticipated that a HMMP will be secured through a planning condition. Depending on the scope of ecological requirements and the preference of the Local Planning Authority, the HMMP may be submitted either as a standalone document (read in conjunction with a separate site wide Ecological Mitigation and Management Plan [EMMP]) or integrated within a broader Biodiversity Landscape Enhancement and Maintenance Plan (BLEMP).

Strategic Significance

2.13 A Local Nature Recovery Strategy has not yet been published for Hampshire. In the absence of the strategy habitats listed in the Biodiversity Plan for Eastleigh Borough were considered to have 'strategic significance' within the calculator.

Assumptions and Limitations

General Limitations of Metrics

2.14 As acknowledged in the User Guide (DEFRA, 2024), the Statutory Biodiversity Metric includes several inherent limitations. Extracts are provided below:

> *The use of this biodiversity metric does not override existing biodiversity protections, statutory obligations, policy requirements, ecological mitigation hierarchy or any other requirements. This includes consenting or licensing processes, for example woodlands." (Principle 2).*
>
> *"This biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice." (Principle 4)*

This biodiversity metric is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance." (Principle 6)

2.15 In relation to Principle 2, protected and valued species are considered in detail as part of the EIA. This also includes avoiding and mitigating impacts and promoting enhancements such as the provision of wildlife boxes, the latter of which should also be taken into account when assessing the overall BNG that can be delivered by the Proposals.

3. SUMMARY OF RESULTS

Introduction

3.1 The following should be read with reference to **Map 3** and the completed Metric Calculation Tool and Condition Assessment spreadsheets submitted separately with the Application.

Description of Baseline

3.2 The total number of on-site baseline units is calculated as follows:

- Area Habitats: 209.75 units
- Hedgerows: 0 unit
- Watercourses: 0 units

3.3 The main habitat type present is Other Neutral Grassland the northern field is mainly rank False-Oat Grassland with locally frequent thistles and nettles (NVC: MG1 species-poor). The northern edge is rabbit grazed and this short turf has moderate diversity (NVC: MG6). The southern field the grass dominated sward that is referrable to the NVC type MG6x (Rodwell et a., 2000). Managed with an annual mow for hay. The edges where not mown have developed into a rank grassland with scrub invasion. A less managed area of grassland on the southern edge by the beacon is rank, damp grassland. Tall Fescue *Schedonorus arundinaceus* has established here and forms locally dense, species-poor patches.

3.4 Areas of Other Woodland, Broadleaved are present in the southeast corner and along the eastern boundary, with mixed scrub. There is an area of scrub dominated by Hawthorn *Crataegus monogyna* s between the two fields with Occasional Oak *Quercus robur* and Ash *Fraxinus excelsior*.

The BNG Hierarchy

3.5 The Proposals were designed with ecological input from an early stage and due consideration has been given to the BNG Hierarchy throughout the master planning process.

3.6 The BNG Hierarchy, as set out in Article 37A of the Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended) requires developers to take the following steps in relation to BNG:

- Avoidance of adverse effects to on-site habitats of ‘Medium’ distinctiveness and above;
- Insofar as they cannot be avoided, mitigating those effects;
- Insofar as they cannot be mitigated; compensating for those effects by prioritising in order, where possible:

    1) Enhancement of existing on-site habitats;
    2) Creation of new on-site habitats;
    3) Allocation of registered off-site gains; and finally

4) Purchase of national off-site biodiversity credits.

3.7 **Table 3.1** sets out a summary of how the BNG Hierarchy has been applied by the Proposals.

Table 3.1: Application of the BNG Hierarchy

Action	Evidence of application
Impact Avoidance:	Retention of boundary habitats, including hedgerows, woodland belts, and scrub along site edges, particularly adjacent to the River Itchen SSSI and within SSSI land. Retention of existing habitat features within the 20m SAC buffer, where feasible. No vegetation clearance or works within the retained areas.
Mitigation:	Works adjacent to sensitive habitats (e.g., River Itchen SSSI) will use directional drilling techniques to avoid surface habitat disturbance. Buffer zones established for retained habitats, and appropriate pollution prevention and soil management measures will be implemented during construction, in line with the CEMP.
Compensation:	
Habitat enhancements (on-site)	Targeted scrub thinning, bracken management, and removal of invasive species to promote species diversity in retained habitats. Retention and enhancement of small areas of wet woodland and reedbed habitat. Deadwood left in-situ to support saproxylic species.
Habitat creation (on-site)	Native tree and scrub planting, creation of hedgerows and Other Neutral Grassland using a species-rich seed mix (e.g., Emorsgate EL1 or equivalent). 337 native trees and 2.4 km of native species-rich hedgerows to be established across the site, balancing biodiversity enhancement with operational constraints (e.g., bird strike risk).
Off-site gains allocated to Application	Purchase of habitat units from Eastleigh Borough Council or approved habitat bank to meet residual BNG requirements: 0.15 Reedbeds, 146.54 Other Neutral Grassland, 4.08 Scrub, and 1.54 Other Woodland; Broadleaved.
Purchase of Biodiversity Credits	Purchase of off-site credits from Eastleigh Borough Council or a recognised habitat bank to secure minimum 10% BNG compliance under the Environment Act 2021 and DEFRA metric trading rules.

Headline Results

3.8 As set out in the Metric Calculation Tool submitted with the Application, the Proposals are predicted to deliver the following net gains, with all Trading Rules met:

- 65.82 area habitat units, or -68.62%
- 16.07 hedgerow units, (all additional to baseline)

On-Site Proposals to Deliver Net Gain

On-site Habitat Creation

3.9 The proposals are anticipated to result in the planting of c.337 native trees and the creation of c.2.4km of native species rich hedgerows which will be manged to deliver biodiversity enhancements while balancing the needs to avoid creating bird hazard due to the proximity of

the airport. Other neutral grassland will be creating through the sowing of a General-Purpose Meadow mixture such as Emorsgate EL1 (or equivalent). As the majority of the application is submitted in an outline, detailed landscape proposals will come forward to support Reserved Matters submissions.

Off-Site Proposals to Deliver Net Gain

3.10 Discussions are ongoing with Eastleigh Borough Council to secure the necessary biodiversity units required to achieve a 10% Biodiversity Net Gain. In accordance with statutory trading rules, credits for the following habitats will be sought:

- Reedbeds;
- Other Neutral Grassland;
- Scrub; and
- Other Woodland, Broadleaved.

4. PROPOSALS FOR DELIVERY AND MONITORING

Delivery

On-Site

4.1 As stated in paragraph 2.12, should planning consent be granted a HMMP or BLEMP will be submitted alongside a Biodiversity Gain Plan to discharge the biodiversity gain planning condition. The mechanism for securing the delivery of significant on-site enhancements is to be agreed with Eastleigh Borough Council, but could take the form of a planning condition, planning obligation or conservation covenant.

Off-Site

4.2 Off-site BNG from a third party is secured through either a conservation covenant or S106 agreement.

Monitoring

On-Site

4.3 The successful establishment of newly created habitats, and progress of all habitats towards their post-development Target Conditions, will need to be regularly monitored to ensure that the predicted BNG will be realised on the ground. A consented HMMP or BLEMP will set out details of the proposed monitoring actions and frequency.

Conclusion

4.4 This Technical Report has set out the methodology and results of the Statutory Biodiversity Metric calculations completed for the Proposals and how the proposals will be able to demonstrate a 10% BNG through on-site habitat creation and the purchase of credits.

4.5 Should planning consent be granted, full details of the arrangements for the delivery of minimum 10% BNG will be set out in a Biodiversity Gain Plan and Habitat Management and Monitoring Plan and submitted to Eastleigh Borough Council for approval.

4.6 It is therefore concluded that the Proposals as envisaged would comply with the statutory minimum requirements for 10% biodiversity net gain as a condition of planning permission in England under the Environment Act 2021 and Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended), as well as with the NPPF and local planning policy.

5. REFERENCES

The British Standards Institution (BSI) (2021). *BS 8683:2021 Process for designing and implementing Biodiversity Net Gain – Specification.* British Standards Limited, 2021.

Chartered Institute of Ecology and Environmental Management (CIEEM) (2021). *Biodiversity Net Gain Report & Audit Templates. Version 1 July 2021.* CIEEM, Winchester.

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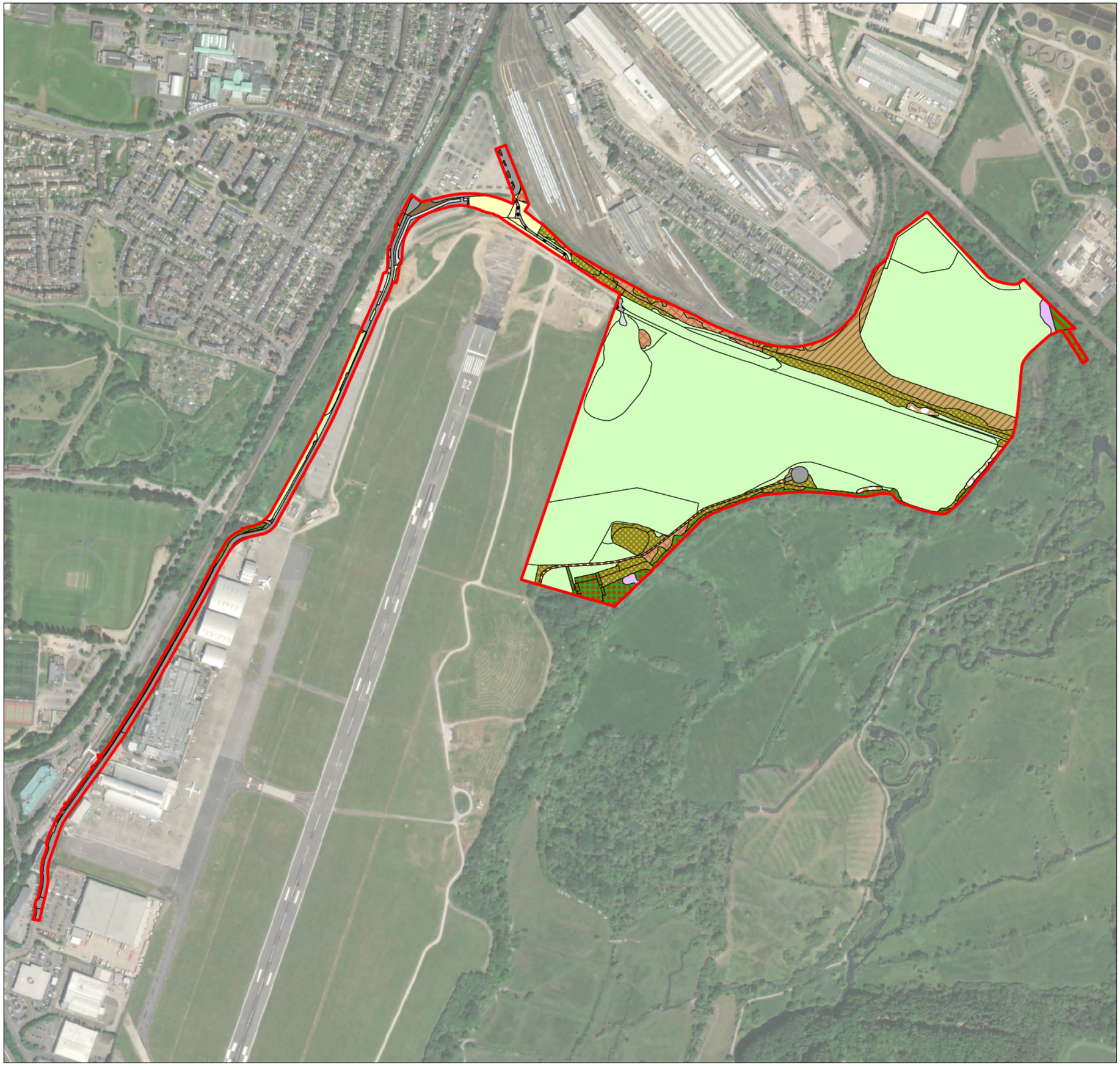
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Maps

MAPS

Map 1 Baseline Habitats
Map 2 BNG Habitat Parcel Reference Numbers
Map 3 Post-Development Habitats



MAP 1 On-site Baseline Habitats

KEY

- Site boundary
- Bracken
- Modified grassland
- Other neutral grassland
- Blackthorn scrub
- Bramble scrub
- Hawthorn scrub
- Mixed scrub
- Ruderal/Ephemeral
- Artificial unvegetated, unsealed surface
- Developed land; sealed surface
- Introduced shrub
- Bare ground
- Reedbeds
- Other woodland; broadleaved
- Wet woodland

SCALE: 1:6,500 at A3

Metres

0 100 200 300 400 500

N

EPR

CLIENT: Bloc Works

PROJECT: Southampton Airport - Navigator Quarter

DATE: 28 May 2025

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Aerial Image Maxar, Microsoft



MAP 2 BNG Habitat Parcel Reference Numbers

KEY

Site boundary

Habitat reference numbers

SCALE: 1:6,500 at A3

Metres

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EPR

CLIENT: Bloc Works

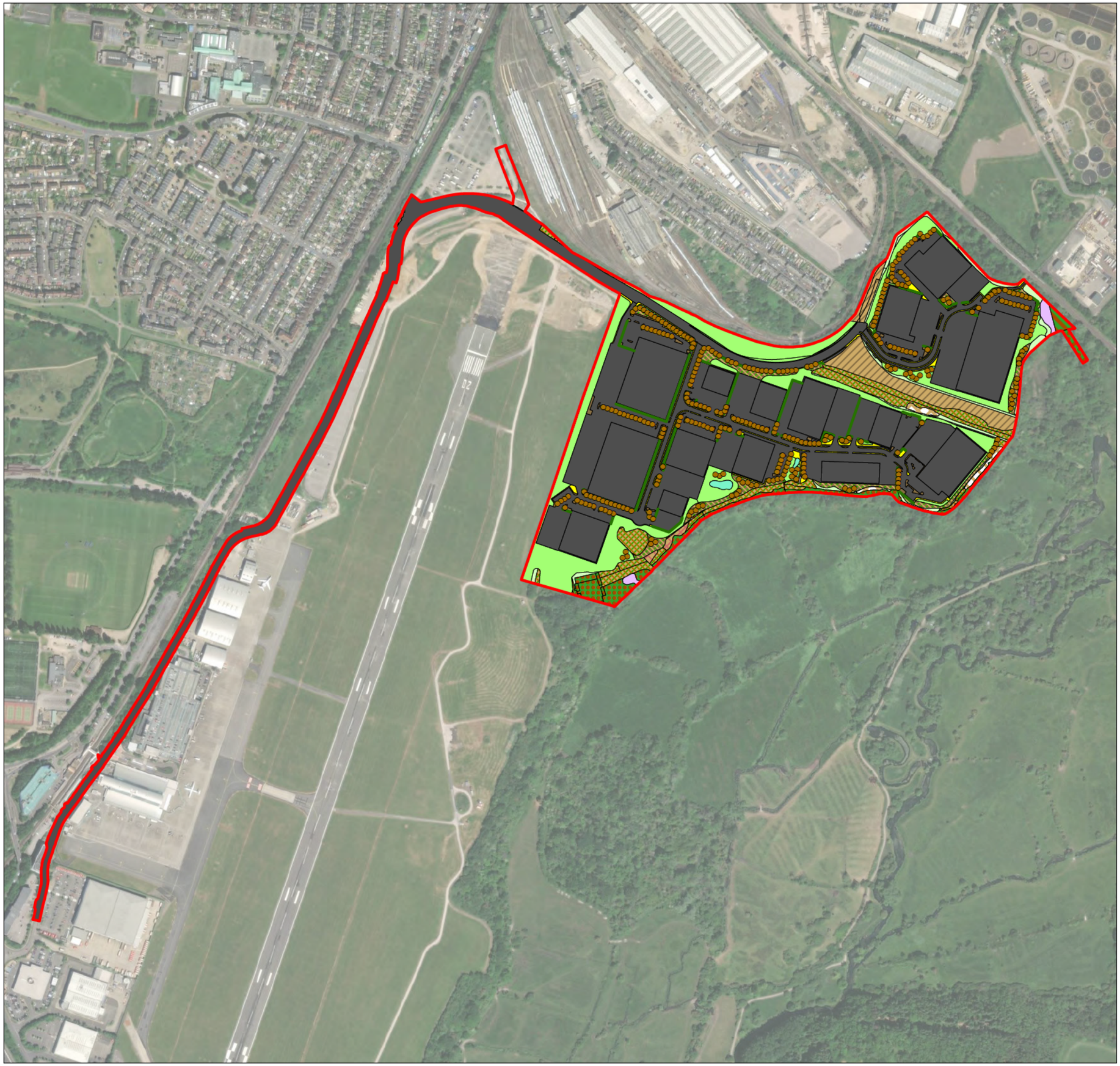
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DATE: 28 May 2025

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Aerial Image Maxar, Microsoft



MAP 3 On-site Proposed Habitats

KEY

Site boundary

Retained

- Bracken
- Modified grassland
- Other neutral grassland
- Blackthorn scrub
- Bramble scrub
- Hawthorn scrub
- Mixed scrub
- Ruderal/Ephemeral
- Developed land; sealed surface
- Introduced shrub
- Bare ground
- Reedbeds
- Other woodland; broadleaved
- Wet woodland

Created

- Urban trees
- Species-rich native hedgerow
- Modified grassland
- Other neutral grassland
- Mixed scrub
- Developed land; sealed surface
- Introduced shrub
- Sustainable urban drainage feature

SCALE: 1:6,500 at A3

Metres

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EPR

CLIENT: Bloc Works

PROJECT: Southampton Airport - Navigator Quarter

DATE: 28 May 2025

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Appendix 1

Biodiversity Net Gain Calculation

Southampton Airpot - Navigator Quarter

Headline Results

Return to results menu

Scroll down for final results ⚠

On-site baseline	*Habitat units*	209.75		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	65.82		
	Hedgerow units	16.07		
	Watercourse units	0.00		
On-site net change (units & percentage)	*Habitat units*	-143.92	-68.62%	On-site net gain is less than target set ⚠
	Hedgerow units	16.07	N/A	Zero baseline units - % cannot be calculated
	Watercourse units	0.00	0.00%	
Off-site baseline	*Habitat units*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site net change (units & percentage)	*Habitat units*	0.00	0.00%	
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-143.92		
	Hedgerow units	16.07		
	Watercourse units	0.00		
Spatial risk multiplier (SRM) deductions	*Habitat units*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		

FINAL RESULTS

Total net unit change	*Habitat units*	-143.92

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)		
	Hedgerow units	16.07
	Watercourse units	0.00

Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)			
	Habitat units	-68.62%	Total net gain achieved is less than target set ▲
	Hedgerow units	N/A	0 baseline units - % cannot be calculated
	Watercourse units	0.00%	

Trading rules satisfied?	
	No - Check Trading Summaries ▲

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	209.75	230.72	164.90	
Hedgerow units	10.00%	0.00	0.00	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

Input errors/rule breaks present in metric ▲

Southampton Airport - Hertigate Quarter

Detailed Results

Return to results menu

Summary Figures

Net project biodiversity units (including all on-site & off-site habitat retention / creation)	Habitat units	-143.63
	Hedgerow units	14.97
	Water course units	0.06

Total project biodiversity % change (including all on-site & off-site habitat creation + retained habitats)	Habitat units	-45.40%
	Hedgerow units	30%
	Water course units	0.100%

Combined habitat retention and enhancement

	Habitats	Hedgerows	Watercourses
Total on-site and off-site baseline area / length	39.89		
Total on-site and off-site baseline units	316.79	n/a	n/a
Total on-site and off-site baseline area / length retained	4.21	n/a	n/a
Total on-site and off-site baseline units retained	33.72	n/a	n/a
Total on-site and off-site area / length proposed for enhancement	0.00	n/a	n/a
Total on-site and off-site baseline units proposed for enhancement	0.00	n/a	n/a
Total on-site and off-site baseline area / length lost	35.67	n/a	n/a
Total on-site and off-site baseline units lost	282.92	n/a	n/a

Area habitats

On-site change by broad habitat type

Habitat group	Baseline: On-site existing area	Baseline: On-site existing value	Post-development on-site: On-site proposed area	Post-development on-site: On-site proposed value	On-site change: On-site area change	On-site unit change
Cropland	0.00	0.00	0.00	0.00	0.00	0.00
Grassland	35.68	174.94	0.76	18.63	-34.92	-156.31
Woodland and shrub	4.21	33.68	3.75	29.84	-0.47	-3.71
Urban	0.00	0.00	0.00	0.00	0.00	0.00
Sparsely vegetated land	0.18	0.60	0.01	0.04	-0.13	-0.56
Other	1.77	0.89	23.13	1.88	21.36	1.01
Wetland	0.13	1.68	0.10	1.24	-0.03	-0.14
Woodland and linear	1.04	8.13	0.00	0.00	-1.04	-8.13
Intertidal sediment	0.00	0.00	0.00	0.00	0.00	0.00
Coastal saltmarsh	0.00	0.00	0.00	0.00	0.00	0.00
Rocky shore	0.00	0.00	0.00	0.00	0.00	0.00
Coastal lagoons	0.00	0.00	0.00	0.00	0.00	0.00
Intertidal hard structures	0.00	0.00	0.00	0.00	0.00	0.00
Watercourse habitat	0.00	0.00	0.00	0.00	0.00	0.00
Individual trees	0.00	0.00	1.39	3.84	1.39	3.84

Off-site change by broad habitat type

Habitat group	Baseline: Off-site existing area	Baseline: Off-site existing value	Post-development off-site: Off-site proposed area	Post-development off-site: Off-site proposed value	Off-site change: Off-site area change	Off-site unit change
Cropland	0.00	0.00	0.00	0.00	0.00	0.00
Grassland	0.00	0.00	0.00	0.00	0.00	0.00
Woodland and scrub	0.00	0.00	0.00	0.00	0.00	0.00
Urban	0.00	0.00	0.00	0.00	0.00	0.00
Sparsely vegetated land	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00
Wetland	0.00	0.00	0.00	0.00	0.00	0.00
Woodland and linear	0.00	0.00	0.00	0.00	0.00	0.00
Intertidal sediment	0.00	0.00	0.00	0.00	0.00	0.00
Coastal saltmarsh	0.00	0.00	0.00	0.00	0.00	0.00
Rocky shore	0.00	0.00	0.00	0.00	0.00	0.00
Coastal lagoons	0.00	0.00	0.00	0.00	0.00	0.00
Intertidal hard structures	0.00	0.00	0.00	0.00	0.00	0.00
Watercourse habitat	0.00	0.00	0.00	0.00	0.00	0.00
Individual trees	0.00	0.00	0.00	0.00	0.00	0.00

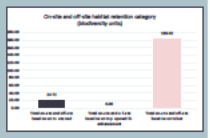
Combined on-site and off-site change for broad habitat type

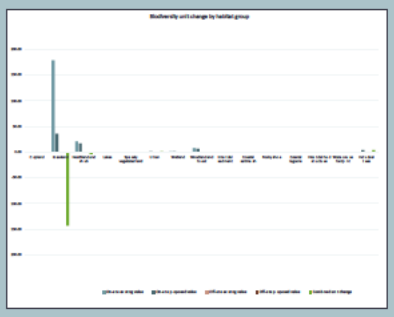
Habitat group	Baseline: Combined existing area	Baseline: Combined existing value	On-site and off-site post-development: Combined proposed area	On-site and off-site post-development: Combined proposed value	Combined change: Combined area change	Combined change: Combined unit change
Cropland	0.00	0.00	0.00	0.00	0.00	0.00
Grassland	35.68	174.94	0.76	18.63	-34.92	-156.31
Woodland and shrub	4.21	33.68	3.75	29.84	-0.47	-3.71
Urban	0.00	0.00	0.00	0.00	0.00	0.00
Sparsely vegetated land	0.18	0.60	0.01	0.04	-0.13	-0.56
Other	1.77	0.89	23.13	1.88	21.36	1.01
Wetland	0.13	1.68	0.10	1.24	-0.03	-0.14
Woodland and linear	1.04	8.13	0.00	0.00	-1.04	-8.13
Intertidal sediment	0.00	0.00	0.00	0.00	0.00	0.00
Coastal saltmarsh	0.00	0.00	0.00	0.00	0.00	0.00
Rocky shore	0.00	0.00	0.00	0.00	0.00	0.00
Coastal lagoons	0.00	0.00	0.00	0.00	0.00	0.00
Intertidal hard structures	0.00	0.00	0.00	0.00	0.00	0.00
Watercourse habitat	0.00	0.00	0.00	0.00	0.00	0.00
Individual trees	0.00	0.00	1.39	3.84	1.39	3.84

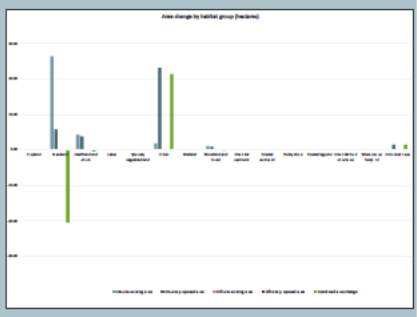
Combined area lost from baseline(s) by distinctiveness band		
Category	Area lost (hectares)	Area lost (%)
V.High	0	
High	0.68	0
Medium	20.68	52
Low	0.1	0
V.Low	1.80	5











Hedgerows and lines of trees

On-site change by hedgerow type

Hedgerow type	Baseline: On-site existing length	Baseline: On-site existing value	Post-development on-site: On-site proposed length	Post-development on-site: On-site proposed value	On-site change: On-site length change	On-site unit change
Species rich native hedgerow with trees - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Species rich native hedgerow with trees	0.00	0.00	0.00	0.00	0.00	0.00
Species rich native hedgerow - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Native hedgerow with trees - associated with bank or ditch	0.00	0.00	3.42	18.77	3.42	18.77
Native hedgerow with trees	0.00	0.00	0.00	0.00	0.00	0.00
Native hedgerow - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Native hedgerow	0.00	0.00	0.00	0.00	0.00	0.00
Ecclesiastic or educational line of trees	0.00	0.00	0.00	0.00	0.00	0.00
Ecclesiastic or educational hedgerow with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Native hedgerow with trees - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Line of trees	0.00	0.00	0.00	0.00	0.00	0.00
Line of trees - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Non-native and ornamental hedgerow	0.00	0.00	0.00	0.00	0.00	0.00

Off-site change by hedgerow type

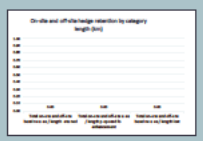
Hedgerow type	Baseline: Off-site existing length	Baseline: Off-site existing value	Post-development off-site: Off-site proposed length	Post-development off-site: Off-site proposed value	Off-site change: Off-site length change	Off-site unit change
Species rich native hedgerow with trees - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Species rich native hedgerow with trees	0.00	0.00	0.00	0.00	0.00	0.00
Species rich native hedgerow - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Native hedgerow with trees - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Native hedgerow with trees	0.00	0.00	0.00	0.00	0.00	0.00
Native hedgerow - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Native hedgerow	0.00	0.00	0.00	0.00	0.00	0.00
Ecclesiastic or educational line of trees	0.00	0.00	0.00	0.00	0.00	0.00
Ecclesiastic or educational hedgerow with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Line of trees	0.00	0.00	0.00	0.00	0.00	0.00
Line of trees - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Non-native and ornamental hedgerow	0.00	0.00	0.00	0.00	0.00	0.00

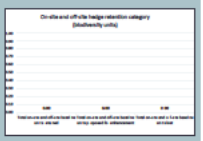
Combined on-site and off-site change for hedgerow type

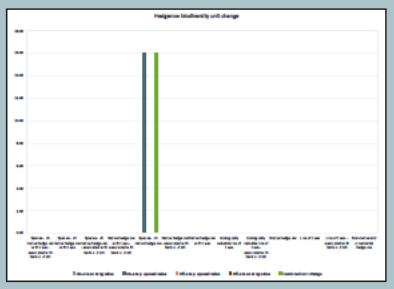
Hedgerow type	Baseline: Combined existing length	Baseline: Combined existing value	Post-development: Combined proposed length	Post-development: Combined proposed value	Change: Combined length change	Change: Combined unit change
Species rich native hedgerow with trees - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Species rich native hedgerow with trees	0.00	0.00	0.00	0.00	0.00	0.00
Species rich native hedgerow - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Native hedgerow with trees - associated with bank or ditch	0.00	0.00	3.42	18.77	3.42	18.77
Native hedgerow with trees	0.00	0.00	0.00	0.00	0.00	0.00
Native hedgerow - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Native hedgerow	0.00	0.00	0.00	0.00	0.00	0.00
Ecclesiastic or educational line of trees	0.00	0.00	0.00	0.00	0.00	0.00
Ecclesiastic or educational hedgerow with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Line of trees	0.00	0.00	0.00	0.00	0.00	0.00
Line of trees - associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00
Non-native and ornamental hedgerow	0.00	0.00	0.00	0.00	0.00	0.00

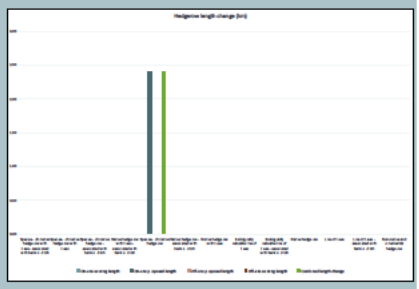
Combined length lost from baseline(s) by distinctiveness band		
Category	Length lost (km)	Length lost (%)
V.High	0	
High	0	
Medium	0	
Low	0	
V.Low	0	











Watercourses

On-site change by watercourse type

Watercourse type	Baseline: On-site existing length	Baseline: On-site existing value	Post-development on-site: On-site proposed length	Post-development on-site: On-site proposed value	On-site Change: On-site length change	On-site unit change
Priority habitat	0.0	0.0	0.0	0.0	0.0	0.0
Other rivers and streams	0.0	0.0	0.0	0.0	0.0	0.0
Ditches	0.0	0.0	0.0	0.0	0.0	0.0
Canals	0.0	0.0	0.0	0.0	0.0	0.0
Culvert	0.0	0.0	0.0	0.0	0.0	0.0

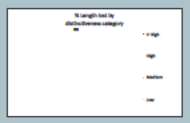
Off-site change by watercourse type

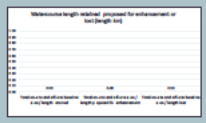
Watercourse type	Baseline: Off-site existing length	Baseline: Off-site existing value	Post-development off-site: Off-site proposed length	Post-development off-site: Off-site proposed value	Off-site Change: Off-site length change	Off-site unit change
Priority habitat	0.0	0.0	0.0	0.0	0.0	0.0
Other rivers and streams	0.0	0.0	0.0	0.0	0.0	0.0
Ditches	0.0	0.0	0.0	0.0	0.0	0.0
Canals	0.0	0.0	0.0	0.0	0.0	0.0
Culvert	0.0	0.0	0.0	0.0	0.0	0.0

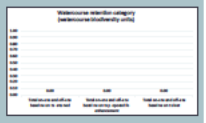
Combined on-site and off-site change for watercourse type

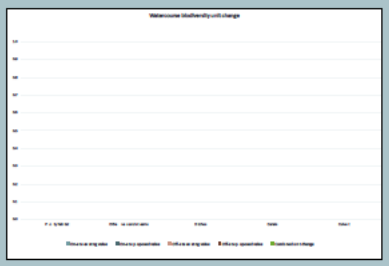
Watercourse type	Baseline: Combined existing length	Baseline: Combined existing value	Post-development on-site: Combined proposed length	Post-development on-site: Combined proposed value	On-site change: Combined length change	On-site change: Combined unit change
Priority habitat	0.0	0.0	0.0	0.0	0.0	0.0
Other rivers and streams	0.0	0.0	0.0	0.0	0.0	0.0
Ditches	0.0	0.0	0.0	0.0	0.0	0.0
Canals	0.0	0.0	0.0	0.0	0.0	0.0
Culvert	0.0	0.0	0.0	0.0	0.0	0.0

Combined length lost from baseline(s) by distinctiveness band		
Category	Length lost (km)	Length lost (%)
V.High	0	
High	0	
Medium	0	
Low	0	











Return to results menu

Trading summary hedgerows

Trading summary watercourses

Trading Summary

Distinctiveness Group	Trading Rule	Trading Satisfied?
Very High	Same habitat required – bespoke compensation option ⚠	Yes ✓
High	Same habitat required =	No ▲
Medium	Same broad habitat or a higher distinctiveness habitat required (2)	No ▲
Low	Same distinctiveness or better habitat required ≥	Yes ✓

Very High Distinctiveness

Habitat group	Group	On-site unit change	Off-site unit change	Project-wide unit change	Unit losses
Grassland - Lowland dry acid grassland	Grassland	0.00	0.00	0.00	
Grassland - Lowland meadows	Grassland	0.00	0.00	0.00	
Grassland - Upland hay meadows	Grassland	0.00	0.00	0.00	
Heathland and shrub - Mountain heaths and willow scrub	Heathland and shrub	0.00	0.00	0.00	
Lakes - Aquifer fed naturally fluctuating water bodies	Lakes	0.00	0.00	0.00	
Sparsely vegetated land - Calaminarian grasslands	Sparsely vegetated land	0.00	0.00	0.00	
Sparsely vegetated land - Limestone pavement	Sparsely vegetated land	0.00	0.00	0.00	
Wetland - Blanket bog	Wetland	0.00	0.00	0.00	
Wetland - Depressions on peat substrates (H7150)	Wetland	0.00	0.00	0.00	
Wetland - Fens (upland and lowland)	Wetland	0.00	0.00	0.00	
Wetland - Lowland raised bog	Wetland	0.00	0.00	0.00	
Wetland - Oceanic valley mires(11) (G2.1)	Wetland	0.00	0.00	0.00	
Wetland - Purple moor grass and rush pastures	Wetland	0.00	0.00	0.00	
Wetland - Transition mires and quaking bogs (H7140)	Wetland	0.00	0.00	0.00	
Woodland and forest - Wood-pasture and parkland	Woodland and forest	0.00	0.00	0.00	
Rocky shore - High energy littoral rock - on peat, clay or chalk	Rocky shore	0.00	0.00	0.00	
Rocky shore - Moderate energy littoral rock - on peat, clay or chalk	Rocky shore	0.00	0.00	0.00	
Rocky shore - Low energy littoral rock - on peat, clay or chalk	Rocky shore	0.00	0.00	0.00	
Rocky shore - Features of littoral rock - on peat, clay or chalk	Rocky shore	0.00	0.00	0.00	
Intertidal sediment - Littoral seagrass on peat, clay or chalk	Intertidal sediment	0.00	0.00	0.00	
		0.00	0.00	0.00	0.00

Very High Distinctiveness Summary

Very High Distinctiveness Units available to offset lower distinctiveness deficit	0.00
Remaining losses: Like for like not satisfied	0.00

High Distinctiveness

Habitat group	Group	On-site unit change	Off-site unit change	Project-wide unit change	Losses not yet accounted for
Grassland - Traditional orchards	Grassland	0.00	0.00	0.00	
Grassland - Floodplain wetland mosaic and CFGM	Grassland	0.00	0.00	0.00	
Grassland - Lowland calcareous grassland	Grassland	0.00	0.00	0.00	
Grassland - Tall herb communities (H6430)	Grassland	0.00	0.00	0.00	
Grassland - Upland calcareous grassland	Grassland	0.00	0.00	0.00	
Heathland and shrub - Lowland Heathland	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Dunes with sea buckthorn (H2160)	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Upland heathland	Heathland and shrub	0.00	0.00	0.00	
Lakes - High alkalinity lakes	Lakes	0.00	0.00	0.00	
Lakes - Low alkalinity lakes	Lakes	0.00	0.00	0.00	
Lakes - Marl lakes	Lakes	0.00	0.00	0.00	
Lakes - Moderate alkalinity lakes	Lakes	0.00	0.00	0.00	
Lakes - Peat lakes	Lakes	0.00	0.00	0.00	
Lakes - Ponds (priority habitat)	Lakes	0.00	0.00	0.00	
Lakes - Temporary lakes ponds and pools (H3170)	Lakes	0.00	0.00	0.00	
Sparsely vegetated land - Coastal sand dunes	Sparsely vegetated land	0.00	0.00	0.00	
Sparsely vegetated land - Coastal vegetated shingle	Sparsely vegetated land	0.00	0.00	0.00	
Sparsely vegetated land - Inland rock outcrop and scree habitats	Sparsely vegetated land	0.00	0.00	0.00	
Sparsely vegetated land - Maritime cliff and slopes	Sparsely vegetated land	0.00	0.00	0.00	
Urban - Open mosaic habitats on previously developed land	Urban	0.00	0.00	0.00	
Wetland - Reedbeds	Wetland	-0.14	0.00	-0.14	-0.14 ▲
Woodland and forest - Felled/Replacement for felled woodland	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Lowland beech and yew woodland	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Lowland mixed deciduous woodland	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Native pine woodlands	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Upland birchwoods	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Upland mixed ashwoods	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Upland oakwood	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Wet woodland	Woodland and forest	0.00	0.00	0.00	
Coastal lagoons - Coastal lagoons	Coastal lagoons	0.00	0.00	0.00	
Rocky shore - High energy littoral rock	Rocky shore	0.00	0.00	0.00	
Rocky shore - Moderate energy littoral rock	Rocky shore	0.00	0.00	0.00	
Rocky shore - Low energy littoral rock	Rocky shore	0.00	0.00	0.00	
Rocky shore - Features of littoral rock	Rocky shore	0.00	0.00	0.00	
Intertidal sediment - Littoral mud	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral mixed sediments	Intertidal sediment	0.00	0.00	0.00	
Coastal saltmarsh - Saltmarshes and saline reedbeds	Coastal saltmarsh	0.00	0.00	0.00	
Intertidal sediment - Littoral biogenic reefs - Mussels	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral biogenic reefs - Sabellaria	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Features of littoral sediment	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral muddy sand	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral seagrass	Intertidal sediment	0.00	0.00	0.00	
		-0.14	0.00	-0.14	-0.14

High Distinctiveness Summary

High Distinctiveness Units available to offset lower distinctiveness deficit	0.00
Remaining losses: Like for like not satisfied	-0.14 ▲

Medium Distinctiveness

Habitat group	Group	On-site unit change	Off-site unit change	Project wide unit change	Cumulative broad habitat change
Cropland - Arable field margins cultivated annually	Cropland	0.00	0.00	0.00	
Cropland - Arable field margins game bird mix	Cropland	0.00	0.00	0.00	0.00
Cropland - Arable field margins pollen and nectar	Cropland	0.00	0.00	0.00	
Cropland - Arable field margins tussocky	Cropland	0.00	0.00	0.00	
Grassland - Other lowland acid grassland	Grassland	0.00	0.00	0.00	
Grassland - Other neutral grassland	Grassland	-145.09	0.00	-145.09	-145.09 ⚠
Grassland - Upland acid grassland	Grassland	0.00	0.00	0.00	
Heathland and shrub - Blackthorn scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Bramble scrub	Heathland and shrub	-1.88	0.00	-1.88	
Heathland and shrub - Gorse scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Hawthorn scrub	Heathland and shrub	-1.80	0.00	-1.80	-3.71 ⚠
Heathland and shrub - Willow scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Hazel scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Mixed scrub	Heathland and shrub	-0.23	0.00	-0.03	
Lakes - Ponds (non-priority habitat)	Lakes	0.00	0.00	0.00	0.00
Lakes - Reservoirs	Lakes	0.00	0.00	0.00	
Sparsely vegetated land - Other inland rock and scree	Sparsely vegetated land	0.00	0.00	0.00	0.00
Urban - Cemeteries and churchyards	Urban	0.00	0.00	0.00	0.00
Urban - Biodiverse green roof	Urban	0.00	0.00	0.00	
Individual trees - Urban tree	Individual trees	3.84	0.00	3.84	3.84 ✓
Individual trees - Rural tree	Individual trees	0.00	0.00	0.00	
Woodland and forest - Other Scot's pine woodland	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Other woodland: broadleaved	Woodland and forest	-1.52	0.00	-1.52	-1.52 ⚠
Woodland and forest - Other woodland: mixed	Woodland and forest	0.00	0.00	0.00	
Intertidal sediment - Littoral coarse sediment	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral sand	Intertidal sediment	0.00	0.00	0.00	0.00
Intertidal hard structures - Artificial hard structures with integrated greening of grey infrastructure (IGGI)	Intertidal hard structures	0.00	0.00	0.00	
		-146.49	0.00	-146.49	

Medium Distinctiveness Summary

Medium Distinctiveness Units available to offset Lower Distinctiveness Deficit	3.84 ✓
Medium Distinctiveness Broad Habitat losses to be offset by trading up	-150.33 ▲
Higher Distinctiveness Surplus Units minus Medium Distinctiveness Broad Habitat Deficit	-150.33 ▲
Cumulative surplus of units	-146.49 ▲

Low Distinctiveness

Habitat group	Group	On-site unit change	Off-site unit change	Project wide unit change
Cropland - Cereal crops	Cropland	0.00	0.00	0.00
Cropland - Horticulture	Cropland	0.00	0.00	0.00
Cropland - Intensive orchards	Cropland	0.00	0.00	0.00
Cropland - Non-cereal crops	Cropland	0.00	0.00	0.00
Cropland - Temporary grass and clover leys	Cropland	0.00	0.00	0.00
Cropland - Winter stubble	Cropland	0.00	0.00	0.00
Grassland - Modified grassland	Grassland	2.09	0.00	2.09 ✓
Grassland - Bracken	Grassland	-0.04	0.00	-0.04 ⚠
Heathland and shrub - Rhododendron scrub	Heathland and shrub	0.00	0.00	0.00
Lakes - Ornamental lake or pond	Lakes	0.00	0.00	0.00
Sparsely vegetated land - Ruderal/ephemeral	Sparsely vegetated land	-0.56	0.00	-0.56 ⚠
Sparsely vegetated land - Tall forbs	Sparsely vegetated land	0.00	0.00	0.00
Urban - Riverside	Urban	0.00	0.00	0.00
Urban - Bare ground	Urban	-0.18	0.00	-0.18 ⚠
Urban - Allotments	Urban	0.00	0.00	0.00
Urban - Façade-bound green wall	Urban	0.00	0.00	0.00
Urban - Ground based green wall	Urban	0.00	0.00	0.00
Urban - Ground level planters	Urban	0.00	0.00	0.00
Urban - Other green roof	Urban	0.00	0.00	0.00
Urban - Intensive green roof	Urban	0.00	0.00	0.00
Urban - Introduced shrub	Urban	1.23	0.00	1.23 ✓
Urban - Rain garden	Urban	0.00	0.00	0.00
Urban - Actively worked sand pit quarry or open cast mine	Urban	0.00	0.00	0.00
Urban - Sustainable drainage system	Urban	0.14	0.00	0.14 ✓
Urban - Vacant or derelict land	Urban	0.00	0.00	0.00
Urban - Vegetated garden	Urban	0.00	0.00	0.00
Woodland and forest - Other coniferous woodland	Woodland and forest	0.00	0.00	0.00
Coastal saltmarsh - Artificial saltmarshes and saline reedbeds	Coastal saltmarsh	0.00	0.00	0.00
Intertidal sediment - Artificial littoral coarse sediment	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral mud	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral sand	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral muddy sand	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral mixed sediments	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral seagrass	Intertidal sediment	0.00	0.00	0.00

Low Distinctiveness Summary

Low Distinctiveness net change in units	2.70 ✓
Cumulative surplus of units	2.70 ✓

Intertidal sediment - Artificial littoral biogenic reefs	Intertidal sediment	0.00	0.00	0.00
Intertidal hard structures - Artificial hard structures	Intertidal hard structures	0.00	0.00	0.00
Intertidal hard structures - Artificial features of hard structures	Intertidal hard structures	0.00	0.00	0.00
Heathland and shrub - Other sea buckthorn scrub	Heathland and shrub	0.00	0.00	0.00
		2.70	**0.00**	**2.70**

Return to results menu

Trading summary area habitats

Trading summary hedgerows

Trading Summary

Distinctiveness Group	Trading Rule	Trading Satisfied?
Very High	Same habitat required – bespoke compensation option ⚠	Yes ✓
High	Same habitat required =	Yes ✓
Medium	Same habitat required =	Yes ✓
Low	Better distinctiveness habitat required	Yes ✓

Very High Distinctiveness

Habitat group	On-site unit change	Off-site unit change	Project-wide unit change
Priority habitat	0.00	0.00	0.00
	0.00	0.00	0.00

Very High Distinctiveness Summary

Very High Distinctiveness Units available to offset lower distinctiveness deficit	0.00
Remaining losses: LUs for HUs not satisfied	0.00

High Distinctiveness

Habitat group	On-site unit change	Off-site unit change	Project-wide unit change
Other rivers and streams	0.00	0.00	0.00
	0.00	0.00	0.00

High Distinctiveness Summary

High Distinctiveness Units available to offset lower distinctiveness deficit	0.00
Remaining losses: LUs for HUs not satisfied	0.00

Medium Distinctiveness

Habitat group	On-site unit change	Off-site unit change	Project wide unit change
Ditches	0.00	0.00	0.00
Canals	0.00	0.00	0.00
	0.00	0.00	0.00

Medium Distinctiveness Summary

Medium Distinctiveness Units available to offset Lower Distinctiveness Deficit	0.00
Remaining losses: LUs for HUs not satisfied	0.00

Low Distinctiveness

Habitat group	On-site unit change	Off-site unit change	Project wide unit change
Culvert	0.00	0.00	0.00
	0.00	0.00	0.00

Low Distinctiveness Summary

Low Distinctiveness net change in units	0.00
Cumulative availability of units	0.00

Return to results menu

Trading summary area habitats

Trading summary watercourses

Trading Summary

Distinctiveness Group	Trading Rule	Trading Satisfied?
Very High	Same habitat required =	Yes ✓
High	Like for like or better	Yes ✓
Medium	Same distinctiveness or better habitat required	Yes ✓
Low	Same distinctiveness or better habitat required	Yes ✓
Very Low	Same distinctiveness or better habitat required	Yes ✓

Very High Distinctiveness

Habitat group	On-site unit change	Off-site unit change	Project-wide unit change
Species-rich native hedgerow with trees - associated with bank or ditch	0.00	0.00	0.00
	0.00	0.00	0.00

Very High Distinctiveness Summary

Very High Distinctiveness Units available to offset lower distinctiveness deficit	0.00
Remaining lowest Like for like not satisfied	0.00

High Distinctiveness

Habitat group	On-site unit change	Off-site unit change	Project wide unit change
Species-rich native hedgerow with trees	0.00	0.00	0.00
Species-rich native hedgerow - associated with bank or ditch	0.00	0.00	0.00
Native hedgerow with trees - associated with bank or ditch	0.00	0.00	0.00
	0.00	0.00	0.00

High Distinctiveness Summary

High Distinctiveness Units available to offset lower distinctiveness deficit	0.00
High Distinctiveness losses to be offset by trading up	0.00
Higher Distinctiveness surplus units minus any high distinctiveness deficit	0.00

Medium Distinctiveness

Habitat group	On-site unit change	Off-site unit change	Project wide unit change
Species-rich native hedgerow	16.07	0.00	16.07 ✓
Native hedgerow - associated with bank or ditch	0.00	0.00	0.00
Native hedgerow with trees	0.00	0.00	0.00
Ecologically valuable line of trees	0.00	0.00	0.00
Ecologically valuable line of trees - associated with bank or ditch	0.00	0.00	0.00
	16.07	0.00	16.07

Medium Distinctiveness Summary

Units available from higher distinctiveness habitats	0.00	
Medium Distinctiveness net change in units	16.07	✓
Cumulative availability of units	16.07	✓

Low Distinctiveness

Habitat group	On-site unit change	Off-site unit change	Project wide unit change
Native hedgerow	0.00	0.00	0.00
Line of trees	0.00	0.00	0.00
Line of trees - associated with bank or ditch	0.00	0.00	0.00
	0.00	0.00	0.00

Low Distinctiveness Summary

Low Distinctiveness net change in units	0.00	
Cumulative availability of units	16.07	✓

Very Low Distinctiveness

Habitat group	On-site unit change	Off-site unit change	Project wide unit change
Non-native and ornamental hedgerow	0.00	0.00	0.00
	0.00	0.00	0.00

Very Low Distinctiveness Summary

Very Low Distinctiveness net change in units	0.00	
Cumulative availability of units	16.07	✓

Project Name: Development Area / Application Number: Main Reference:

A-1 City Site Habitat Baseline

Condenser/ Note Columns

Condenser/ Note Rows

Main Macro

NOM Habitat Multiplier	
Habitat Not Met Quantity	1.00
Habitat Met Quantity	1.00
Habitat Enhancement Quantity	1.00 - Should not be considered at

Ref	Habitat area habitats				Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Biodiversity Unit Value
	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier		Total habitat units
1	Urban	Artificial, unvegetated, unsealed surface	No	0.15	V Low	0	Mdt. - Other	0	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Compensation fee Required	0.00
2	Urban	Open ground	No	0.38	Low	2	Poor	1	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required or	0.38
3	Woodland and shrub	Hawthorn scrub	No	0.06	Medium	4	Moderate	2	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (H)	0.48
4	Woodland and shrub	Hawthorn scrub	No	0.06	Medium	4	Poor	1	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (H)	0.24
5	Grassland	Bracken	No	0.01	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required or	0.02
6	Woodland and shrub	Ivy-tide scrub	No	0.91	Medium	4	Condition Assessment N/A	1	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (H)	3.64
7	Urban	Developed land: sealed surface	No	1.45	V Low	0	Mdt. - Other	0	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Compensation fee Required	0.00
8	Woodland and shrub	Hawthorn scrub	No	1.82	Medium	4	Poor	1	Location accordingly desirable but not in local strategy	Medium strategic significance	1.1	Same broad habitat or a higher distinctiveness habitat required (H)	8.02
9	Urban	Introduced shrub	No	0.11	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required or	0.22
10	Woodland and shrub	Mixed scrub	No	0.24	Medium	4	Good	3	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (H)	2.64
11	Woodland and shrub	Mixed scrub	No	0.5	Medium	4	Moderate	2	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (H)	5.40
12	Woodland and shrub	Mixed scrub	No	1.91	Medium	4	Poor	1	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (H)	8.04
13	Grassland	Modified grassland	No	0.37	Low	2	Poor	1	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required or	0.74
14	Grassland	Other neutral grassland	No	1.937	Medium	4	Moderate	2	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (H)	3.48.84
15	Grassland	Other neutral grassland	No	7.34	Medium	4	Poor	1	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (H)	29.36
16	Woodland and forest	Other woodland: broadleaved	No	2.97	Medium	4	Moderate	2	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (H)	5.94
17	Woodland and forest	Other woodland: broadleaved	No	0.44	Medium	4	Poor	1	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (H)	1.76
18	Wetland	Reedbeds	No	0.08	High	8	Moderate	2	Formally identified in local strategy	High strategic significance	1.15	Same habitat required or	1.84
19	Wetland	Reedbeds	No	0.04	High	8	Poor	1	Formally identified in local strategy	High strategic significance	1.15	Same habitat required or	0.46
20	Sparsely vegetated land	Rubble/Hardstand	No	0.15	Low	2	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required or	0.30		
21	Woodland and forest	Wet woodland	No	0.56	High	8	Moderate	2	Area/compensation not in local strategy/ or local strategy	Low Strategic Significance	1	Same habitat required or	4.48
22	Woodland and forest	Other woodland: broadleaved	No	0.48805	Medium	4	Good	3	Formally identified in local strategy	High strategic significance	1.15	Same broad habitat or a higher distinctiveness habitat required (H)	5.62

Ref	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost	Irreplac. compensated/as agreed by Issuer of VESS or Irreplaceable habitat	Comments		
								User comments	Planning authority comments	Habitat references number
1			0.00	0.00	0.15	0.00		Artificial, unvegetated, unsealed surface, located within the Site Boundary, to be lost as a result of the landscaping / proposed hard ground / and roadways. These areas lack any vegetation cover and provide no botanical or habitat value. Surveyed by EPS in 2021-2024 to contain this or been classified. Habitat Type classified as 'Urban - Artificial, unvegetated, unsealed surface' (UKHab v12). Condition not applicable under UKHab biodiv. area. the net equivalent to 'Poor' for baseline purposes		
2			0.00	0.00	0.38	0.38		Open ground habitat consisting of unpaved, compacted soil and vehicle associated with construction and infrastructure areas. No significant vegetation cover present. Habitat classified as 'Urban - Open Ground' (UKHab v12). Urban shrubs may subsides origin. Habitat provides negligible botanical value and is not considered ecologically valuable. Habitat type classified as 'Urban - Open Ground' (UKHab v12). Condition not applicable under UKHab biodiv.		
3	0.06		0.48	0.00	0.00	0.00		Scrub habitat dominated by Hawthorn (Prunus spinosa), with Hawthorn (Crataegus monogyna), Oak (Quercus robur), and Ether (Sambucus nigra) present. Ground flora sparse, beneath the canopy, primarily bare litter or Localised ruderal species such as nettle (Urtica dioica) and bramble (Rubus fruticosus). Habitat type then Set as 'Other Hawthorn Scrub' (UKHab 12a5) based on BNG bounty surveys (2021-2024). Assessed as 'Moderate' condition under UKHab criteria: native species dominance, low lashing in structural diversity and or to limited ground flora diversity.		4
4	0.06		0.00	0.00	0.00	0.00		Scrub habitat dominated by Hawthorn (Prunus spinosa), with Hawthorn (Crataegus monogyna), bramble (Rubus fruticosus), and scattered ruderal species such as nettle (Urtica dioica). Understorey sparse and species poor. Native lacks structural diversity and age variation or to limited ground flora diversity. Habitat type then Set as 'Other Hawthorn Scrub' (UKHab v12a5) based on BNG bounty surveys (2021-2024).		4
5	0.01		0.02	0.00	0.02	0.04		Poorly species-poor grassland dominated by coarse grasses such as False Oat-grass (Arrhenatherum elatius) and Cocksfoot (Dactylis glomerata), with scattered ruderal species and extensive areas of bracken (The fern epidium). The area is in rank and functionally low, not with no significant diversity of herbs or structure. Habitat classified as 'Grassland - Other Neutral' (UKHab v2) and 'Modified Grassland' (UKHab g4) based on BNG bounty surveys (2021-2024). Condition assessment not applicable (N/A) for bracken, dominated area under UKHab matrix guidance.		5
6	1.82		3.64	0.00	0.00	3.64		Scrub habitat dominated by bracken (Pteridium aquilinum), with scattered Hawthorn (Prunus spinosa), bramble (Rubus fruticosus), and scattered ruderal species such as nettle (Urtica dioica). Limited ground flora sparse, beneath the canopy, primarily bare litter or Localised ruderal species such as nettle (Urtica dioica). Habitat type then Set as 'Other Hawthorn Scrub' (UKHab v12a5) based on BNG bounty surveys (2021-2024). Condition assessed as 'Poor' under UKHab criteria due to limited structural diversity and low species diversity. Habitat type then Set as 'Other Hawthorn Scrub' (UKHab v12a5) based on BNG bounty surveys (2021-2024).		6
7	0.11		0.22	0.00	0.00	0.00		Scrub habitat located within developed areas, primarily comprised of introduced species such as ornamental shrubs and garden hedgerows with scattered native species including bramble (Rubus fruticosus). Sparse understorey cover. Limited native species diversity and structural complexity. Habitat classified as 'Urban - Introduced Shrub' (UKHab v12) based on BNG bounty surveys (2021-2024). Condition Assessment (CA) not applicable under UKHab criteria.		7.9.6.12.18
8	0.27		0.54	0.00	0.00	0.00		Scrub habitat or in a diverse mix of native species including Hawthorn (Crataegus monogyna), Hawthorn (Prunus spinosa), bramble (Rubus fruticosus), and scattered ruderal species such as nettle (Urtica dioica). Ground flora sparse, but includes patches of the Hedera baltic and other native species. Native poor, the structural variety with multiple age classes and species layers. Habitat classified as 'Mixed Scrub' (UKHab v12) based on BNG bounty surveys (2021-2024). Condition assessed as 'Good' under UKHab criteria: native species dominance, presence of multiple structural layers, and low invasive species pressure.		1
9	0.52		0.10	0.00	0.00	0.00		Scrub habitat comprising a mix of native species including Hawthorn (Crataegus monogyna), Hawthorn (Prunus spinosa), bramble (Rubus fruticosus), and scattered Oak (Quercus robur). Ground flora sparse, primarily bare litter and ivy has. Growth is assessed as 'Moderate' under UKHab matrix guidance based on habitat structure and species composition, classified by BNG bounty surveys (2021-2024).		1.2.9
10	1.14		4.56	0.00	0.57	1.48		Scrub habitat dominated by native species including Hawthorn (Crataegus monogyna), Hawthorn (Prunus spinosa), Bramble (Rubus fruticosus), and scattered Oak (Quercus robur). Ground flora sparse, primarily bare litter and scattered ruderal species such as nettle (Urtica dioica). Habitat assessed as 'Poor' under UKHab criteria due to limited structural diversity, lack of multiple age classes, and low ground flora diversity. Habitat classified as 'Mixed Scrub' (UKHab v12), based on BNG bounty surveys (2021-2024).		1.2.9.9.11.14.16.18
11	0.01		0.02	0.00	0.00	0.74		Modified grassland dominated by coarse grasses such as False Oat-grass (Arrhenatherum elatius). Occasional ruderal species such as nettle (Urtica dioica) and bramble (Rubus fruticosus). Low diversity of herbs. Limited structural variation and presence of bare ground in parts, assessed as 'Moderate' under UKHab matrix guidance. Habitat classified as 'Modified Grassland' (UKHab g4) based on BNG bounty surveys (2021-2024). Condition assessed as 'Poor' under UKHab matrix guidance, based on species composition and poor condition.		8.16
12	0.38		0.76	0.00	19.44	148.79		Species-poor, neutral grassland dominated by coarse grasses such as False Oat-grass (Arrhenatherum elatius), Cocksfoot (Dactylis glomerata), and Red Fescue (Festuca rubra). A few scattered ruderal and low diversity herb species. Some structure in tall, with a few taller herbs and grasses, but overall lacking in forbs. Habitat is driveway and ruderal herbs such as nettle (Urtica dioica). Habitat classified as 'Other Neutral Grassland' (UKHab g) based on BNG bounty surveys (2021-2024). Condition assessed as 'Moderate' under UKHab matrix guidance. Assessed as limited diversity, low presence of indicator species and lack of any structural features.		1.2.4.9.16
13	0.84		1.68	0.00	7.56	57.53		Species-poor, neutral grassland dominated by coarse grasses such as False Oat-grass (Arrhenatherum elatius), Cocksfoot (Dactylis glomerata), and coarse ruderal species such as nettle (Urtica dioica) and bramble (Rubus fruticosus). Sward structure is rank with low diversity of forbs and limited presence of indicator species. Habitat classified as 'Other Neutral Grassland' (UKHab g4) based on BNG bounty surveys (2021-2024). Condition assessed as 'Poor' under UKHab matrix guidance, based on low species diversity, dominance of coarse grasses, and limited habitat structure.		1.2.4.9.16
14	0.48		0.96	0.00	0.05	1.44		Young broadleaved plantation woodland comprising native species including Oak (Quercus robur), Hawthorn (Crataegus monogyna), Ether (Sambucus nigra), Birch (Betula pendula), and Oak (Quercus robur). Ground flora sparse, consisting mainly of leaf litter with occasional ruderal species such as nettle (Urtica dioica) and bramble (Rubus fruticosus). Habitat is young and structurally simple, with limited ground flora diversity and no scattered ruderal species. Dominated and Ether. Habitat classified as 'Other Woodland: Broadleaved' (UKHab w1g) based on BNG bounty surveys (2021-2024). Condition assessed as 'Moderate' under UKHab matrix guidance, native species composition and presence of deadwood noted, but limited age structure and understorey diversity.		1.2.16
15	0.44		0.88	0.00	0.04	0.88		Area/area of broadleaved woodland dominated by native species including Oak (Quercus robur), Hawthorn (Crataegus monogyna), Ether (Sambucus nigra), Birch (Betula pendula), and Oak (Quercus robur). Ground flora sparse, consisting mainly of leaf litter with occasional ruderal species such as nettle (Urtica dioica) and bramble (Rubus fruticosus). Habitat is young and low understorey development. Habitat classified as 'Other Woodland: Broadleaved' (UKHab w1g) based on BNG bounty surveys (2021-2024). Condition assessed as 'Moderate' under UKHab matrix guidance, due to absence of any structural features and low species diversity.		1.2.15
16	0.08		0.16	0.00	0.00	0.00		Wetland habitat comprising exposed areas of headland dominated by Common Reed (Phragmites australis) or to limited species diversity and sparse ground flora beneath which is a mix of mud and standing water. Habitat classified as 'Reedbeds' (UKHab f2a) based on BNG bounty surveys (2021-2024). Condition assessed as 'Moderate' under UKHab criteria: presence of a larger species but lacking in species complement structural diversity and extensive coverage required for 'Good' condition.		4
17	0.04		0.14	0.00	0.00	0.14		Wetland habitat consisting of small, fragmented patches of Reedbeds dominated by Common Reed (Phragmites australis) with limited ground flora beneath. Ground flora shows signs of degradation with sparse mud cover, reduced structural complexity, and minimal associated species. Habitat classified as 'Reedbeds' (UKHab f2a) based on BNG bounty surveys (2021-2024). Condition assessed as 'Poor' under UKHab matrix guidance due to limited species composition, low density of target species, and lack of characteristic habitat features.		1
18	0.01		0.04	0.00	0.14	0.00		Areas of sparsely vegetated land dominated by ruderal and opportunistic species, including bramble (Rubus fruticosus), nettle (Urtica dioica), and occasional patches of mixed herbs. Habitat structure is patchy and it is low, ground and limited species diversity. Habitat classified as 'Rubble/Hardstand' (UKHab v12) based on BNG bounty surveys (2021-2024). Condition assessed as 'Moderate' under UKHab matrix guidance, due to presence of ruderal species, low density of native species, and limited diversity and patchy coverage.		1.4.7
19	0.08		0.16	0.00	0.00	0.00		Wet woodland habitat comprising a mix of native tree species including Alder (Alnus glutinosa), Birch (Betula pendula), and occasional Oak (Quercus robur) on Ordinary sparse, with ground flora including damp, tolerant species such as nettle (Urtica dioica) and occasional patches of mosses and ferns. Located within a topographic low area with seasonal waterlogging. Habitat classified as 'Wet Woodland' (UKHab w1d) based on BNG bounty surveys (2021-2024). Condition assessed as 'Moderate' under UKHab matrix guidance: native species structure was present, but limited structural complexity, age diversity, and ground flora biodiversity.		16
20	0.48805		0.98	0.00	0.00	0.00		Young plantation woodland of native species including Oak (Quercus robur), Hawthorn (Crataegus monogyna), Ether (Alnus glutinosa), Birch (Betula pendula), and Oak (Quercus robur). Ground flora sparse, consisting mainly of leaf litter with occasional ruderal species such as nettle (Urtica dioica) and bramble (Rubus fruticosus). Understorey (both seedling and taller) present throughout, contributing to structural complexity. Habitat classified as 'Other Woodland: Broadleaved' (UKHab w1g) based on BNG bounty surveys (2021-2024). Condition assessed as 'Good' under UKHab matrix guidance: native species dominance, presence of deadwood and developing structural features. Located within BNG and adjacent to the River. Other Directional drilling technique proposed for crossing, therefore no above-ground disturbance.		16



Project Name: Southampton Airport - Navigator Quarter   Map Reference:

A-2 On-site Habitat Creation

Condense / Show Columns | Condense / Show Rows | Main Menu

Area habitat summary	
Total net unit change	[illegible]
Total Net % Change	[illegible]%
Trading rules satisfied	No - check trading summary ⚠
Area Check	Area Acceptable ✓

Ref	Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier
1	Urban	Developed land; sealed surface	[illegible]	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic significance	1
2	Urban	Introduced shrub	[illegible]	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic significance	1
3	Heathland and shrub	Mixed scrub	[illegible]	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic significance	1
4	Grassland	Modified grassland	[illegible]	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic significance	1
5	Grassland	Other neutral grassland	[illegible]	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic significance	1
6	Urban	Sustainable drainage system	[illegible]	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic significance	1
7	Individual trees	Urban tree	[illegible]	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic significance	1

Ref	Standard time to target condition (years)	Habitat created in advance (years)	Delay in starting habitat creation (years)	Standard or adjusted time to target condition	Final time to target condition (years)	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied	Habitat units delivered	User comments	Planning authority comments	Habitat reference number
1	0			Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Low	1	[illegible]			
2	1			Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	[illegible]			
3	1			Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	[illegible]			
4	4			Standard time to target condition applied	4	0.867	Low	Standard difficulty applied	Low	1	[illegible]			
5	5			Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	[illegible]			
6	[illegible]			Standard time to target condition applied	[illegible]	[illegible]	Medium	Standard difficulty applied	Medium	0.67	[illegible]			
7	10			Standard time to target condition applied	10	0.700	Low	Standard difficulty applied	Low	1	[illegible]			

Total habitat area [illegible]

Site Area (Excluding area of individual trees, green walls, intertidal hard structures) [illegible]

Total Units [illegible]

Project Name: Southampton Airport - Navigator Quarter | Map Reference

B-2 On-Site Hedge Creation

Condense / Show Columns | Condense / Show Rows

Main Menu

Hedgerow summary	
Total net unit change	[illegible]
Total net % change	[illegible]
Trading rules satisfied	[illegible]

		Proposed habitats		Distinctiveness		Condition		Strategic significance			Temporal multiplier						Difficulty risk multipliers				Hedge units delivered	Comments		
Ref	New hedge number	Habitat type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier	Standard Time to target condition (years)	Habitat created in advance (years)	Delay in starting habitat creation (years)	Standard or adjusted time to target condition	Final time to target condition (years)	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied		User comments	Planning authority comments	Habitat reference number
1	1	Species-rich native hedgerow	2.4	Medium	4	Moderate	2	Area/compensation not in local strategy/no local strategy	Low Strategic Significance	1	5			Standard time to target condition applied	5	0.657	Low	Standard difficulty applied	Low	1	16.07			
			2.40																		16.07			

ECOLOGICAL EXPERTISE, EVOLVED

Quarter

Appendix 10.4: Botany

Prepared on behalf of

Blockwork (Eastleigh) LLP/SIAL

Final Report

23 May 2025

31/26-2A

Southampton Airport – Navigator Quarter

Appendix 10.4: Botany

Report Release Sheet

Draft/Final:	Final Report
Issue Number:	31/26-2A
Date:	23 May 2025
Client:	Blockwork (Eastleigh) LLP/SIAL
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Southampton Airport – Navigator Quarter

Appendix 10.4: Botany

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1. INTRODUCTION

1.1 This Technical Appendix supports the Ecological Assessment chapter of the Environmental Statement (ES). It sets out:

- A description and evaluation of the botanical (flora and vegetation) features of ecological importance within the Zone of Influence (ZoI) of the Southampton Airport – Navigator Quarter development proposal;
- An assessment of potential effects (in the absence of mitigation) on those botanical features of importance that could arise from the proposed development;
- The identification of measures to avoid or mitigate these effects and proposes compensation measures to address residual effects that cannot be addressed through avoidance/mitigation; and
- A description of the ecological enhancements that are proposed, in line with national and local planning policy.

Description of Development

1.2 Hybrid planning permission is being sought for:

> *'Outline application for development of the land adjacent to Southampton Airport to provide employment floorspace of up to 92,000 sqm (GIA) within Use Classes E(g) (ii & iii), B2 and B8 with ancillary offices and areas for service yards, car parking, landscaping, ancillary buildings and associated activities, and access from Wide Lane (all matters reserved except for access). Full planning application for initial infrastructure works and construction of new access road including site levelling and other engineering works.'*

The Study Area

1.3 The application site is 34 hectares in size and located between the town of Eastleigh and the city of Southampton, falling within the boundary of Eastleigh Borough Council. Southampton Airport is located immediately to the south and west of the site, on the edge of the city's suburbs. To the immediate north of the site is a train depot, located at the convergence of trainlines from Southampton and Portsmouth. Sandwiched between the train depot land there is a residential area on Campbell Road, which is in a conservation area and Barton Park Industrial Estate is located beyond the depot to the north.

1.4 The site is formed of 2 plots, a larger area immediately adjacent to the Airport that is known as the South Plot, and an area of land to the north of this, known as the North Plot, which is separated from the South Plot by an area of landscape that has established on a now raised railway embankment that is now redundant and has become overgrown. The nearby railway

lines form the northern boundaries to the application site, with the railway raised on an embankment.

Legislation & Policy

Legislation

1.5 The Conservation of Habitats and Species Regulations 2017 (as amended) requires an appropriate authority (in England this is Natural England) to monitor the conservation status of "natural habitat types of national interest and species of natural interest", as listed on Annex I and Annexes II, IV and V respectively of the 1992 EU Habitats Directive. The main objective of the Regulations in respect of these nationally important habitats and species is to maintain or restore them to a favourable conservation status in their natural range.

1.6 A total of 77 Annex I habitats and nine Annex II higher plant species occur in the UK; these are mostly protected within designated Special Areas of Conservation (SACs) but may occasionally occur outside of these sites.

1.7 The Wildlife and Countryside Act 1981 (as amended) provides for the designation of sites of national importance for flora and fauna (SSSIs). In addition, the Act protects certain plant species from intentional picking, uprooting or destruction under Schedule 8, and prevents the spread of invasive non-native species listed under Schedule 9.

1.8 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places a 'Biodiversity Duty' on all public bodies to have regard to the conservation of biodiversity when carrying out their normal functions. This includes giving consideration for the restoration and enhancement of species and habitats.

1.9 Section 41 (S41) of the Act required the Secretary of State to publish a list of habitats and species which are of Principal Importance for the conservation of biodiversity in England – commonly referred to as "priority habitats and species". Public authorities have a responsibility to give specific consideration to the "S41 list" when exercising their normal functions. In total, 56 habitat types and 152 vascular plant species are included within the S41 list.

Local Planning Policy

1.10 The Eastleigh Borough Council Local Plan 2016–2036 sets out the strategic framework for sustainable development within the Borough, including specific provisions for conserving and enhancing biodiversity. Policy DM11 (Nature Conservation) requires that development proposals avoid damage to nationally and locally designated sites, as well as to habitats and species of principal importance. Where impacts are unavoidable, proposals must demonstrate adequate mitigation, and where appropriate, deliver biodiversity net gain.

1.11 In line with the National Planning Policy Framework (NPPF, 2024), the Local Plan also emphasises the protection of ecological networks and the restoration of fragmented habitats. The importance of Sites of Importance for Nature Conservation (SINCs) is recognised at the local level as forming critical parts of the Borough's green infrastructure.

Biodiversity Strategies

1.12 The site lies within an area identified in Hampshire's Ecological Network Mapping as containing and connecting Priority Habitats. The Hampshire Biodiversity Information Centre (HBIC) recognises the importance of these habitats in supporting local conservation targets, and development within such areas is expected to protect and, where possible, enhance habitat connectivity and floristic diversity

Likely Biophysical Changes

1.13 Biophysical change means an "*alteration in biological and/or physical conditions of the environment (e.g., changes in the atmospheric concentration of carbon dioxide, altered soil pH or change in the frequency of a plant species in an area)*" (CIEEM, 2018).

Activities and Resultant Biophysical Changes Likely during the Construction Phase

- Permanent and/or temporary loss of vegetation and flora due to the erection then removal of temporary fencing and structures on Site;
- Permanent and/or temporary damage to vegetation and flora through increased levels of human and vehicular activity; and
- Permanent and/or temporary damage to vegetation and flora due to pollution from dust, chemicals, contaminated water, and/or airborne traffic pollution.

Activities and Resultant Biophysical Changes Likely during the Operational Phase

- Permanent and/or temporary damage to vegetation and flora from increased levels of human activity (e.g. trampling, fire, litter, spillages) and vehicle movements.

Zone of Influence

1.14 The ZoI of a proposed development is defined by the CIEEM EcIA Guidelines as "…*the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities*" (CIEEM, 2018).

1.15 The area over which the potential biophysical changes associated with the Development Proposal (as detailed above) could affect vegetation and flora is used to define the ZoI for the purposes of this Appendix.

1.16 The biophysical changes listed above are considered likely to be confined to the Site and the immediate surroundings.

2. METHODS AND CONSTRAINTS

Introduction

2.1 The flora, vegetation, and habitat surveys conducted for this report included both desk research and field work. The results of the research and survey were collated and then assessed and evaluated according to criteria as set out below. Habitats and species were interpreted for NERC Act 2006 Section 41 status.

Survey Area and Red Line

2.2 The Survey Area extends beyond the Red Line boundary. This broader coverage was selected to support iterative design development and to enable a robust assessment of habitats and species that may fall within the development's wider ZoI. This approach aligns with best practice guidance for ecological assessment, ensuring that potential indirect impacts on adjacent habitats are duly considered.

Desktop Research

2.3 A desktop study of the Survey Area and ZoI was undertaken to collate information on existing features of nature conservation interest, the physical nature of the Survey Area, and landscape and ecological history of the Survey Area.

2.4 Sources consulted included:

- The Multi-Agency Geographic Information for the Countryside (MAGIC);
- The British Geological Survey;
- The Soil Survey of England and Wales;
- The Environment Agency;
- Open-source LiDAR imagery published by DEFRA;
- Milne's Map of Hampshire, 1791;
- Ordnance Survey drawings Sheet 82, dated 1806;
- OS 1 inch to the mile OS map, Sheet 11, published 1810;
- Tithe Map for North Stoneham Parish, dated 1841;
- The 6" to the Mile Ordnance Survey Maps (c. 1872-1930s);
- Land Utilisation Survey of Britain c.1937;
- 1:10,000 OS map c.1951, and
- Aerial and satellite imagery from the 1940s onwards.

Biological Records

2.5 A biological records search was commissioned from HBIC (2025) to provide data on botanical records and any locally designated sites for nature conservation from within a 2km radius of the Site.

Survey Area and Survey Compartments

Survey Area Compartments

2.6 Information from the desk research was used to subdivide the Survey Area into survey compartments. These compartments are a subjective division of the site based on a combination of land ownership, landscape history, and/or physical features in the Survey Area. The Survey Compartments were drawn in ArcGIS over OS Mastermap area and linear data.

Draft Map for Fieldwork

2.7 A draft map of vegetation habitats in the Survey Compartments was drawn based on the results of the desk research, aerial imagery, and LiDAR imagery.

Field Survey Methodology

Flora

General

2.8 A list of the vascular plant species was recorded from the Survey Area. The relative abundance of the each of the species was estimated subjectively and recorded using the 'DAFOR' scale, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare. The prefix 'L' was used to denote 'Locally'.

2.9 Species of conservation interest and species indicative of habitat type (for grassland habitat types) were recorded for each Survey Compartment.

2.10 Invasive non-native species (as listed on the Wildlife & Countryside Act 1981, as amended Schedule 9) were recorded when encountered but this survey was not a comprehensive search of the whole of the Survey Area for this group of species.

Species of Conservation Interest

2.11 Species of conservation interest are defined here as species in one or more of the following categories:

- Species with a conservation status listed by the Joint Nature Conservation Committee (JNCC) in their "Conservation Designations for UK Taxa" list (JNCC, 2023); and
- County Notable species as published by the Hampshire Flora Group (HFG, Issue 22: 5 Mar 2024).

Habitat Type Indicator Species

2.12 The following habitat quality indicator lists were used:

- UKHab v2.0 (see Habitats Section below).

Vegetation

2.13 Vegetation was mapped in the field by drawing polygons of homogenous vegetation onto draft field maps. Where necessary, habitat parcels were split to distinguish between different vegetation communities or subcommunities. Divisions between vegetation types were drawn by the surveyor based on field observation, aerial imagery, and/or LiDAR imagery.

2.14 Vegetation types were recorded by sampling with 2m x 2m quadrats (for grasslands) following methodology set out in Rodwell (2006). Quadrat locations are shown on **Map 2**.

2.15 Where possible, the vegetation within the Survey Area was classified according to the National Vegetation Classification (NVC) community descriptions (Rodwell, 1991-2000) using a combination of the quadrat data, species lists and notes for each parcel, see **Map 3**.

Habitats

UK Habitat Classification

2.16 The draft habitat map was verified on Site and updated following the field survey.

2.17 Habitat type indicator species (from grasslands) were used in conjunction with floristic, vegetation, and information from the desk research to identify grassland habitats.

2.18 Each habitat parcel and linear feature (such as hedgerows) has been assigned a unique ID code. These are referred to throughout this report and shown on **Map 1**.

Nomenclature

2.19 Nomenclature follows Stace, 4th edition 2019 (Stace, 2019). Plant community names are those given in the British Plant Communities (Rodwell et al., 1991-2000) and the review of the NVC (Rodwell et al., 2000). Names of habitats are those given in the UKHab V2.0 (UKHab, 2023).

Evaluation Methodology

Overview

2.20 Evaluation methodology is set out in the CIEEM Guidelines for Ecological Impact Assessment (EcIA) (2018). The first stage of an EcIA is to identify “important ecological features” (IEF) within the ZoI of a proposed scheme and evaluate the relative importance of these on a geographic scale (National, Regional, County, Local or Within the ZoI). Typically, only those features of “Local” importance or above are taken forward for full impact assessment.

2.21 The methods used for evaluating the habitats, flora and vegetation at the Site are set out below.

Flora

2.22 An interpretation of the potential importance of the flora supported by the ZoI of the Development Proposal is based on descriptions given in the following:

National

- Guidelines for the Selection of Biological Sites of Special Scientific Interest (SSSIs): Chapter 11: Vascular Plants (Taylor et al., 2021).

County

- Criteria for the Selection of SINCs in Hampshire: Section C Qualifying Species Criteria for species of County Importance (Wilson and HBIC, 2021).

Vegetation

2.23 An interpretation of the potential importance of the vegetation communities identified within the ZoI of the Development Proposal is based on descriptions given in the following:

International/National

- Interpretation Manual of EU Habitats: Annex 1 Habitats (EC, 2013);
- Guidelines for the Selection of Biological Sites of Special Scientific Interest (SSSIs): Chapter 3 Grasslands (Jefferson et al., 2019).

County

- Criteria for the Selection of SINCs in Hampshire (Wilson and HBIC, 2021).

Evaluation of Habitats

2.24 The evaluation of habitats is typically contained within the evaluation of their component flora and vegetation, as habitat type in itself does not convey an intrinsic level of importance on the CIEEM geographic scale.

2.25 Some habitat parcels and features, however, may qualify as IEFs in their own right, i.e. for reasons unrelated to their component flora and vegetation or geographic level of importance. This includes habitats afforded additional weight in planning policy, such as those associated with areas of Section 41 'Priority' habitats, irreplaceable habitat, and habitats which are of intrinsic importance as wildlife corridors or historic features of long ecological continuity.

2.26 It is important to note that the purpose of this assessment is not to identify sites that could be considered for selection/notification as SACs, SSSIs or SINCs. Rather, the criteria set out in the resources listed above are used to inform an objective evaluation of the flora, vegetation and habitats according to CIEEM's geographic frame of reference.

3. DESKTOP SURVEY RESULTS

Geographical and Ecological Context

3.1 Geographical information on the Survey Area and wider potential ZoI for botanical features was obtained from the 'Multi-Agency Geographic Information for the Countryside' (MAGIC) and are summarised below.

Designations: Statutory

3.2 The eastern edge of the Red Line boundary is adjacent to the River Itchen Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC). These designations are underpinned by the presence of high-quality riparian and wetland habitats that support diverse aquatic and marginal plant assemblages associated with chalk river systems. These features are shown in **Figure 10.1**, within the associated ES Ecology Chapter.

Designations: Non-Statutory

3.3 The Within 2 km of the Survey Area, multiple Sites of Importance for Nature Conservation (SINCs) are designated for their botanical interest under woodland, grassland, and wetland criteria, with spatial distribution shown in **Figure 10.1**, within the associated ES Ecology Chapter. These include:

- Itchen Valley Country Park (EA0035) – supports notable wetland flora such as *Carex acuta* and *Ludwigia palustris* and includes riparian habitats of botanical significance (Criteria: 2B/5A/5B/6A).
- Itchen Valley Nature Reserve (EA0022) – designated under multiple wetland and grassland botanical criteria (1Cii/2A/2B/5A/5B/6A); supports species such as *Juncus subnodulosus*.
- Hog Wood & Gravel Pits (EA0050) – comprises ancient woodland and fen habitats (Criteria: 1A/1Cii/5A/6A)
- Dummers Copse North and South (EA0034, EA0032) – ancient semi-natural woodland (Criteria: 1A/1B/1Cii), with indicators of long woodland continuity.
- Chestnut Avenue Meadow (EA0010) – semi-improved grassland of floristic interest (Criteria: 2B/6B).
- Swamp West of Recreation Grounds (EA0028) – designated for its wetland botanical assemblage (Criteria: 5A/5B/6A), including *Rorippa amphibia*.
- Allington Manor Farm Water Meadows (EA0036) – floodplain grassland designated under 2B/5B.
- Marshy Grassland, Bishopstoke (EA0042) – wet grassland of botanical value (Criteria: 2B/5B).
- Meadow North of Railway (EA0043) – lowland meadow under 5B.
- Stanford Meadow (EA0044) – floristically rich grassland (Criteria: 2B/5B).
- Hogwood Lane Meadow (EA0052) – grassland with notable flora (Criteria: 2B/5B).

- West Horton Farm Woods (EA0059) – includes wet woodland and marshy grassland habitats (Criteria: 1Cii/5B/6A), supporting *Persicaria bistorta*.
- Winslowe House Meadow (EA0060) – designated under 2A for species-rich grassland.
- Ashtrim Nurseries (EA0137) – grassland habitat under Criterion 2B.
- Field North of Hearts Row, West End (EA0151) – designated as 5B grassland.
- Treeline Break, West End (EA0152) – wet woodland under 1A/1Cii.
- Monks Brook, Fleming Park (EA0153) – wetland grassland and marginal habitats (5A/5B/6A)
- Monks Brook Greenway (SO0025) – designated under 1Cii/6A; includes riparian and woodland habitats.

Habitats and species

Priority Habitats

3.4 According to MAGIC and HBIC data, the following botanically relevant Priority Habitats are present within the Survey Area:

- Deciduous Woodland – present in fragmented stands within and adjoining the Red Line boundary, particularly to the northwest and southeast.
- Good quality semi-improved grassland – identified in patches within the broader ZoI.

Landscape

3.5 The Survey Area lies within the Natural England National Character Area 126 South Hampshire Lowlands. This NCA is characterised by a diverse and low-lying landscape of woodlands, wetlands, and grasslands interspersed with urban and peri-urban development.

Physical Nature of the Survey Area

Geology

Bedrock

3.6 The bedrock geology under the eastern part of the Survey Area is the Wittering Formation, which is formed of sand, silt and clay, and the western part is over the London Clay Formation, which is a formed of clay, silt and sand.

Superficial Geology

3.7 These bedrock units are entirely overlain by River Terrace Deposits 1, consisting predominantly of fluvially reworked sand and gravel, with occasional lenses of silt and clay. These deposits represent former floodplain surfaces and form the parent material for the soils observed across the Survey Area.

Topography

3.8 The site lies within the Itchen Valley and occupies a gently undulating River Terrace situated on the western margin of the Itchen floodplain. The topography is predominantly flat, with the

eastern edge of the terrace, supporting the grassland, ranging between approximately 10 to 13 metres above sea level.

Hydrology

3.9 The Survey Area lies in close proximity to the River Itchen, a chalk river of high hydrological significance. Although elevated above the main floodplain, the terrace on which the site is located is likely influenced by shallow groundwater fluctuations, particularly in winter months. Numerous field drains and ephemeral ditches are present across the Site, and their alignment indicates historic land drainage for agriculture. While no standing waterbodies are present within the red line boundary, nearby springs and drains may contribute to localised soil moisture variability, influencing plant community composition.

Soils

Natural

3.10 According to the Cranfield Soil and Agrifood Institute (LandIS), the natural soils within the Survey Area fall within Soilscape 6: Freely draining slightly acid loamy soils. These soils typically exhibit good permeability and low nutrient status, supporting a range of semi-natural grassland and scrub communities. Their structure is generally well-aerated, with low runoff potential and a moderate capacity to support diverse botanical assemblages under low-intensity management.

Artificial

3.11 Much of the Survey Area on the western side lies within developed land and soils here have been modified.

3.12 Land separating the two fields on the eastern part of the Survey Area is made ground of railway ballast built into an embankment. Soils in this area are artificial on the ballast and much modified in the terrain adjacent to the ballast.

Made/Artificial Ground

3.13 The Survey Area includes extensive areas of made ground/artificial substrate. The western part of the Survey Area, the built landscape of Southampton Airport includes modified ground for infrastructure.

3.14 The land adjacent to Eastleigh Works appears to have artificial ground (from LIDAR).

3.15 The boundary between north and south field is artificial in that it is railway ballast built into an embankment.

Landscape/Ecological history

Overview

3.16 This section focusses on the areas of semi-natural and agricultural habitats on the eastern side of the Survey Area: Survey Compartments 1 to 4 inclusive. The western part of the Survey Area

has been more or less comprehensively developed and now has mostly hard-standing or recently established habitats.

3.17 The site is sub-divided on the basis of the Desk Research for mapping and interpretation. See **Map 1** for the location of the Survey Area and its subdivision into Survey Compartments. The broad outline of the landscape and ecological history of the eastern areas 1 to 4 is illustrated in **Table 3.1** below.

Table 3.1: Survey Area Compartments and Landscape/Ecological History

Survey Area Compartment Name		Description of Compartment	History
Number	Name		
1	North Stoneham Farm	The old farm buildings, yards, paddocks of North Stoneham Farm. An old gravel pit and also an old bay of the Itchen Navigation.	Shown as Farmstead from Milne's Map of c. 1791 through to post WWII 1950 1:2500 map. Abandoned as a farm sometime after 1950
2	North Stoneham Farm Fields	Former fields associated with North Stoneham Farm.	This area shown as agricultural land continuously from earliest maps to now. Tithe maps and apportionments show this land to have been arable with a small strip of woodland (which was grubbed up by the time of the 1870 OS 6-inch map). The southern part of the field had buildings and infrastructure in the mid-1940s. The Land Utilisation Survey of mid 1930s shows this as 'Meadowland and permanent grass'
3	Eastleigh Works Railway Extension	An embankment of railway ballast supporting rail tracks (now removed). Includes small buildings associated with rail use.	A railway embankment was built between 1895 and 1908 leading from the Eastleigh Works to the Itchen floodplain. Rail lines are shown on the embankment up to the 1960's. It is assumed here that the lines were abandoned and lifted sometime after 1960. The route of the lines continued in use for vehicles until very recently but is now abandoned.
4	Northern Field	An old field. Also includes a small area in the NE corner with damp habitat adjacent to a ditch.	Agricultural land from the earliest maps. Tithe records land use as arable. The Land Utilisation Survey of mid 1930s shows this as 'Meadowland and permanent grass'. The willow scrub and scattered trees over wet grassland and reeds in the NE corner is a recently developed habitat.

HBIC Data Search

3.18 Relevant records from the data search are summarised below.

Species: Flora

3.19 Notable plant records returned by HBIC that could potentially be supported by the habitats present within the Zone of Influence include:

- *Misopates orontium* (Weasel's Snout)

- *Rosa spinosissima* (Burnet Rose)
- *Rosa x andegavensis* (Short-styled Field Rose hybrid)
- *Carex acuta* (Slender Tufted sedge)
- *Ludwigia palustris* (Hampshire-purslane)

3.20 Surveyors were therefore particularly alert to the potential presence of these species while conducting the field survey.

On Site

3.21 The following species have recording units that overlap the Survey Area boundary:

- *Misopates orontium* (Weasel's Snout)
- *Rosa spinosissima* (Burnet Rose)

3.22 Habitats capable of supporting these species were searched.

Elsewhere in Seach Area

3.23 Species records beyond the Survey Area boundary are mostly those recorded from the Itchen floodplain and are unlikely to be supported by the habitats within the Survey Area.

Survey Area Compartments

3.24 The Survey was sub-divided into Compartments on the basis of the Desk Research and these Compartments were for used for the survey. They are described in **Table 3.2** below.

3.25 All Compartments were surveyed for their UKHab v2.0 habitat types.

3.26 Furthermore, the Desk Research and earlier preliminary surveys had identified the grasslands in Survey Compartments 1, 2, and 4 as needing detailed botanical (flora and vegetation) surveys to assess and evaluate their ecological importance.

Table 3.2: Survey Area Compartments

Survey Area Compartment		Description of Compartment
No.	Name	
1	North Stoneham Farm Fields (Southern Field)	The old farm buildings, yards, paddocks of North Stoneham Farm. An old gravel pit and also an old bay of the Itchen Navigation. Farm abandoned post WWII.
2	North Stoneham Farm Fields (Southern Field)	Former fields associated with North Stoneham Farm. These fields have buried services. Managed by annual mowing.
3	Eastleigh Works Railway Extension	An embankment of railway ballast supporting rail tracks (now removed). Includes small buildings associated with rail use.
4	Northern Field	An old field. Also includes a small area in the NE corner with damp habitat adjacent to a ditch.
5	Eastleigh Works Boundary Habitat	A scrubby fringe on land owned by the Railway. Lies between rail tracks in the Eastleigh works and a fence line marking the property boundary.

Survey Area Compartment		Description of Compartment
No.	Name	
6	Northern Edge of Airfield	Miscellaneous land on the northern edge of the airfield land – not on airside
7	Long-stay Carpark	A hard-standing area for car parking. Ornamental plants at the end of parking bays and around the edges.
8	Long-stay Carpark Overspill	Partly made ground and part semi-natural.
9	Western Edge	This includes a spoil heap and a works yard.
10	Mitchell Way	Mitchell Way and associated verges and adjacent habitats
11	Rail Mainline Boundary Habitat	Linear strip of vegetation located adjacent to the mainline railway. Vegetation includes scattered scrub, tall ruderal species, and ephemeral/short perennial vegetation, typical of disturbed or compacted ground at infrastructure edges.

4. FIELD SURVEY RESULTS

Survey Dates and Personnel

4.1 Botanical and habitat surveys were carried out by Andrew Cross of EPR, a specialist botanical surveyor with over 20 years' experience. Surveys were carried out on the following dates: 11th and 12th September 2024 and the 1st, 9th, and 15th of November 2023.

Survey Limitations & Constraints

4.2 The September 2024 survey was carried out in the grasslands of the southern field (Compartments 1 and 2). The grass had been mown and collected earlier in the summer but at the time of survey had sufficient growth following the cut. Some areas, for example around well heads, pylons, and shrubs had not been mown and these were surveyed as well as the cut areas.

4.3 The northern field (Compartment 4) and southern fields were surveyed in November 2023. The grassland in the northern field had not been cut and perennial species were visible. The southern field had been topped with a high (c. 30cm) cut and the material left *in situ*.

Flora

Species of Conservation Interest

4.4 The following species of conservation interest were recorded in the Survey Area. The locations of these species are shown on **Map 5**.

Table 4.1: Species of conservation interest recorded in the Survey Area

Species		Conservation Status	Comment
Rosa spinosissima	Burnet Rose	Hampshire County Scarce and Acid Grassland Indicator	A single plant was recorded in Compartment 6 just to the north of the proposed development red line.
Rosa stylosa/Rosa canina x stylosa = R. x andegavensis	Short-styled Field Rose and its hybrids	A Hampshire County Responsibility species	Several plants seen on scrub edges in Compartments 1 and 2
Teloschistes chrysophthalmus	Golden-eye Lichen	Critically Endangered and Nationally Rare	Two thalli recorded from scrub edge in Compartment 1

4.5 The populations of these three species are of Local Importance. All currently lie outside of the proposed development red line and thus no direct impact is predicted.

Habitat Quality Indicator Species

4.6 The following habitat quality indicator species used in the Hampshire SINC Grassland Selection Guidelines (HBIC, 2021) are present:

Table 4.2: Grassland Habitat Quality Indicator Species Recorded Within the Survey Area, Referenced Against HBIC (2021) and UKHab v2.0 Criteria

Species	HBIC Lowland Meadow Indicator	UKHab g3~ Indicator	Distribution/Abundance
Anthoxanthum odoratum		Yes (g3a)	Locally occasional in compartment 1, frequent in 2, rare in 4
Agrimonia eupatoria	Yes	Yes (g3a)	Very locally occasional in compartment 1, absent from 2 and 4
Centaurea nigra	Yes	Yes (g3a)	Restricted to one area of grassland in compartment 1, one plant seen in 2, two plants in 4
Galium verum	Yes	Yes (g3a)	Rare in compartment 1, absent from 2 and 4
Lathyrus pratensis	Yes	Yes (g3a)	Absent from compartments 1 and 4, rare in 2,
Leucanthemum vulgare	Yes	Yes (g3a)	Locally abundant in compartment 1, occasional in 2, absent from 4
Lotus corniculatus	Yes	Yes (g3a)	Rare in compartment 1, locally occasional in 2, absent from 4
Plantago lanceolata	Yes	Yes (g3c)	Locally occasional in compartment 1, rare in 2, absent from 4
Pulicaria dysenterica	Yes	Yes (g3c)	Absent from compartments 1 and 4, very rare in 2,
Ranunculus acris		Yes (g3c)	Occasional in compartment 2, absent from 1 and 4
Scorzoneroides autumnalis		Yes (g3a)	Rare in compartment 2, absent from 1 and 4
Trifolium pratense		Yes (g3c)	Locally occasional in compartment 2, absent from 1 and 4
Trifolium repens		Yes (g3c)	Absent from compartment 1, locally occasional in 2, locally frequent in 4

Vegetation

Survey Compartment 1: North Stoneham Farmstead

4.7 The data collected from the grasslands in this area is tabulated in **Annex 2**.

4.8 The grassland vegetation here is associated with the more formal and intensively used ground associated with the old Farmstead. These are now little managed and are dominated by False Oat-grass *Arrhenatherum elatius* that is rank and beginning to be invaded by scrub.

4.9 These grasslands are referrable to the NVC type **MG1** *Arrhenatherum elatius* grassland.

4.10 These swards are considered to be of **Local Importance**. While they represent semi-natural grassland communities referrable to NVC MG1 (*Arrhenatherum elatius* grassland), they do not meet the criteria to be considered for selection as a Hampshire SINC. Specifically, they lack

the required diversity of habitat indicator species and are dominated by coarse grasses with limited forb content. As such, they are not considered to be of substantive ecological value at the county level in respect of their vegetation and flora.

Survey Compartment 2: North Stoneham Farm Field

4.11 The data collected from the grasslands in this area is tabulated in **Annex 3**.

4.12 The grassland vegetation here is predominantly a relatively herb-poor mesic grassland on loamy soils that range from well-drained on higher ground to damp on the lower ground.

4.13 The core vegetation type here is a grassland whose grasses are predominantly Common Bent *Agrostis capillaris*, Sweet Vernal Grass *Anthoxanthum odoratum*, Red Fescue *Festuca rubra*, and Yorkshire Fog *Holcus lanatus*. Crested Dog's-tail *Cynosurus cristatus* is very rare and Perennial Rye-grass *Lolium perenne* was not noted on the survey.

4.14 The swards tend to be dominated by grass species and forbs are scattered and with low cover.

4.15 Tall Fescue *Schedonorus arundinaceus* has invaded this grassland and where so has formed large clonal mats that where present tend to be species-poor. The Tall Fescue may have invaded this grassland from the airside grassland where it has been sown as part of an airside grassland mix.

4.16 This type of grassland appears to be referable to a type of MG6 grassland not described in the main volumes of the NVC but it is listed in the review of the NVC (Rodwell et al., 2000) as: **MG6** *Festuca rubra-Holcus lanatus Anthoxanthum odoratum* grassland.

4.17 For this report, this grassland is referred to as MG6x to differentiate it from the MG6 descriptions given in the NVC Volume 3.

4.18 A total of 17 2m x 2m quadrats were recorded from the MG6x swards in the southern field to cover local variation: the main type of grassland, stands invaded by Tall Fescue, stands with different management, and stands on different types of disturbed ground.

4.19 The MG6x swards support a thin scatter of a few HBIC SINC indicator species, mostly confined to the edges of the field.

4.20 This grassland community is assessed as being of **Local Importance**. Although a small number of SINC indicator species were recorded, these were confined to field edges and were insufficient in number or distribution to meet the thresholds set out in the Hampshire SINC Grassland Selection Guidelines. The sward is characterised by a dominance of common grass species and a low cover of forbs, limiting its botanical diversity. Its classification as MG6x, a variant associated with disturbed or improved ground, and the widespread presence of *Schedonorus arundinaceus* further reduce its botanical value. Collectively, these factors confirm that the grassland does not qualify as a potential SINC or Priority Habitat.

Survey Compartment 4: Northern Field

4.21 The data collected from the grasslands in this area is tabulated in **Annex 4**.

4.22 The grassland vegetation here is dominated by rank False Oat-grass with areas on lower, damper ground having stands of locally abundant Creeping Thistle *Cirsium arvense* and Stinging Nettle *Urtica dioica*. This grassland vegetation is referable to the NVC type **MG1** *Arrhenatherum elatius* grassland.

4.23 The northern edge of the grassland, which forms part of a vehicle access route, is grazed by rabbits which has led to a shorter, slightly more diverse sward and this is a type of MG6 grassland.

4.24 An area of grassland in the north west corner of the field has been recently mown and possibly disturbed. This was recovering and is best placed as a herb-poor MG6 vegetation type. If no further mowing is carried out here, the sward will revert to **MG1** *Arrhenatherum elatius* grassland.

4.25 The grassland vegetation in this compartment is considered to be of **Local Importance**. While the area supports a mix of MG1 and herb-poor MG6 grassland types, the swards are largely rank and species-poor, dominated by *Arrhenatherum elatius* and associated with coarse or ruderal species such as *Urtica dioica* and *Cirsium arvense*. The small patch of shorter, more diverse vegetation near the access route does not support a sufficient diversity or abundance of SINC indicator species to meet the criteria for selection under the Hampshire SINC Grassland Selection Guidelines. Overall, the compartment does not meet the floristic thresholds for higher value classification and is therefore assessed as being of no more than Local ecological importance.

Evaluation

4.26 The grassland vegetation communities in Compartments 1, 2 and 4 are considered to be of **Local Importance** for the reasons given above.

UK Habitat Classification

4.27 The whole of the Survey Area was mapped to UKHab to the highest level possible. **Map 4a** shows the UKHab in the Survey Area and **Map 4b** shows the UKHab within the proposed development Redline area.

4.28 In addition to the grassland habitats described in Compartments 1, 2, and 4, the site includes several areas of non-grassland vegetation. These comprise:

- h3d – Bramble scrub: Present as scattered patches, particularly around field margins.
- h3a6 – Other blackthorn scrub: Found locally along site boundaries.
- h3f – Hawthorn scrub and h3h – Mixed scrub: Occurring in small clumps or linear features, often associated with hedgerow remnants.
- w1d – Wet woodland: Localised presence in the far north-eastern corner of the Site.
- w1g – Other broadleaved woodland: Occurs in peripheral areas and is mostly secondary in character.
- u1b – Developed land, sealed surface and u1c – Artificial unvegetated, unsealed surface: Includes hardstanding, compacted bare ground, and trackways.

- g4 – Modified grassland: Often closely mown or disturbed, outside the core grassland compartments.
- f2f – Other wetlands: Present in low-lying areas subject to water retention.

4.29 These habitats are considered to be of ecological importance only **within the ZoI**. They support basic habitat structure and connectivity but do not meet criteria for designation under the Hampshire SINC guidelines or Priority Habitat classification. Where relevant, impact avoidance and mitigation measures are presented in **Section 5**.

5. IMPACT ASSESSMENT

Introduction

5.1 This Section examines the potential for significant ecological impacts and resultant effects on flora and vegetation as a result of the biophysical changes arising from the Development Proposal during the construction, and operational phases, as listed in **Section 2**. Where significant impacts are identified, the impact avoidance and mitigation measures to be implemented are described. If the potential for significant residual effects remains after mitigation, then compensation measures are also set out.

Impact Avoidance by Design

5.2 In accordance with the principle of the mitigation hierarchy, the scheme has been designed to avoid ecological impacts as far as possible in the first instance, thus reducing the need for extensive mitigation measures.

Mechanisms for Implementing and Securing Mitigation

5.3 Reference is made below to various plans and strategies which will include and expand upon the key principles of the impact avoidance and mitigation measures described, and which can be secured through planning conditions or obligations, including:

- Construction Environmental Management Plan (CEMP);
- Landscape and Ecological Management Plan (LEMP); and
- Ecological Mitigation & Management Plan (EMMP).

Impact Assessment

Grasslands

Assessment of Impacts and Mitigation - Construction Phase

5.4 Grasslands of the Northern field and North Stoneham Farm field will be lost as a result of the proposed development resulting in a Significant Negative effect at the Local scale. The loss of the habitat cannot be mitigated, therefore compensation will be required for its loss.

5.5 Areas of retained grassland will be protected from disturbance, pollution and accidental damage through the implementation of the CEMP, such that no other significant effects are anticipated during the construction phase.

Assessment of Impacts and Mitigation - Operational Phase

5.6 During the operational phase, retained grasslands, particularly those adjacent to access tracks or hardstanding, may be vulnerable to trampling, informal use, or occasional vehicle access for maintenance or emergency access. Without management, this could lead to compaction, vegetation damage, and loss of structure and botanical diversity.

5.7 These risks will be managed through the implementation of a LEMP. Measures will include:

- Defined access routes and turning areas to avoid unnecessary vehicle intrusion;

- Use of fencing or planting to guide pedestrian movement and prevent desire-line erosion;
- Management of retained grasslands via seasonal cutting and invasive species control;
- Monitoring of grassland condition, with remedial measures if degradation is observed.

5.8 With these measures in place, any operational impacts on retained grassland habitats are predicted to be not significant at the Local scale.

Compensation

5.9 Compensation for the loss of grassland will comprise the enhancement/creation of off-site grasslands within the boundary of Eastleigh Borough Council administration area. Further details are provided in **Appendix 10.3** Biodiversity Net Gain.

Scrub

Assessment of Impacts and Mitigation - Construction Phase

5.10 A small area of the scrub associated with the Rail Ballast Area will be lost to facilitate the access road for the proposed development. The remining areas of scrub will be retained and measures identified within the CEMP will be put in place to protect the scrub during construction. Given the minimal amount of loss and the protection of the remaining scrub no significant impacts are anticipated during the construction phase.

Assessment of Impacts and Mitigation - Operation Phase

5.11 No significant impacts to scrub habitats are predicted during the operational phase. While lighting and vehicle or pedestrian activity may indirectly affect species using the scrub, these impacts are not expected to adversely affect the habitat itself. Such effects are considered in the relevant species Technical Appendices. Occasional trampling or verge overspill may occur at site margins, but these are expected to be infrequent and minor, resulting in effects that are limited to within the ZoI only.

Woodland

Assessment of Impacts and Mitigation - Construction Phase

5.12 The woodland associated with the Itchen Navigation and the northern area of the North Stoneham Farm will be retained and measures identified within the CEMP will be put in place to protect the woodland during construction. No significant impacts are therefore anticipated during the construction phase.

Assessment of Impacts and Mitigation - Operation Phase

5.13 No significant impacts to retained woodland habitats are predicted during the operational phase. Although lighting has been considered in site design, it is not expected to adversely affect the woodland habitat itself, with any potential effects on woodland-associated species addressed separately in the relevant Technical Appendices. Potential operational phase pressures such as trampling or occasional vehicle access are expected to be minimal, and where they occur, are likely to result in effects at within the ZoI level only. Protective measures outlined in the LEMP will support the long-term condition of the retained woodland.

Flora

Assessment of Impacts and Mitigation - Construction Phase

5.14 All flora identified as being of conservation importance are located within areas of vegetation to be retained and will therefore be protected by the measures identified within the CEMP. No significant impacts are therefore anticipated during the construction phase.

Assessment of Impacts and Mitigation - Operation Phase

5.15 No significant impacts to flora of conservation interest are predicted during the operational phase. These species are located within retained vegetation areas that will be subject to protection through design measures and ongoing management. Artificial lighting is not expected to affect these plant species directly. While minor operational phase pressures such as trampling or vehicle movement may occur at site margins, these are anticipated to be infrequent and localised, resulting in effects that are limited to within the ZoI only. The LEMP will provide a framework for ongoing habitat condition monitoring and remedial action if required.

Summary of Impact Assessment

5.16 **Table 5.1** below provides a summary of the potential impacts of the Development Proposal on IEFs, proposals for impact avoidance and mitigation where required, residual effects, and the compensation proposed for any significant residual effects.

Table 5.1: Summary of Impact Assessment

Feature	Importance	Significant Unmitigated Impacts	Avoidance/Mitigation	Significance of Residual Effects	Compensation
Construction Phase					
Grassland - Northern Field and North Stoneham Farm Field	Local	Loss of vegetation	Not possible	Significant at Local level	Yes
Other grasslands	Local	Disturbance and accidental damage	Impact avoided through implementation of CEMP to include fencing of retained and sensitive habitats and pollution prevention measures	Not Significant	No
Woodland and scrub	ZoI	Disturbance and accidental damage	Impact avoided through implementation of CEMP to include fencing of retained and sensitive habitats and pollution prevention measures	Not Significant	No
Flora	Local	Disturbance and accidental damage	Impact avoided through implementation of CEMP to include fencing of retained and sensitive habitats and pollution prevention measures	Not Significant	No
Operational Phase					
Retained grasslands	Local	Disturbance and damage	Habitat buffers and LEMP	Not Significant	No
Woodland and scrub	ZoI	Disturbance and damage	Habitat buffers and LEMP	Not Significant	No
Flora	Local	Disturbance and damage	Habitat buffers and LEMP	Not Significant	No

6. CONSEQUENCES FOR DECISION MAKING

Summary of Mechanisms to Secure Impact Avoidance, Mitigation and Compensation Measures

6.1 Compliance with the following Plans, which can be secured by planning conditions and/or obligations, is required to ensure the successful implementation of the impact avoidance, mitigation and compensation measures set out in **Section 5**:

- Construction Environmental Management Plan (CEMP);
- Ecological Mitigation and Management Plan (EMMP);
- Landscape and Ecological Mitigation Plan (LEMP); and
- Biodiversity Net Gain Plan.

Conclusion in Respect of Legislation and Planning policy

6.2 This impact assessment has predicted that, subject to the implementation of the impact avoidance, mitigation and compensation measures set out in this report, the Development Proposal will not have any significant negative residual effects on IEFs in terms of vegetation and flora and will comply with the nature conservation related legislation and policy listed in **Section 1**.

7. REFERENCES

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Maps

Map 1 Survey Area and Survey Compartments

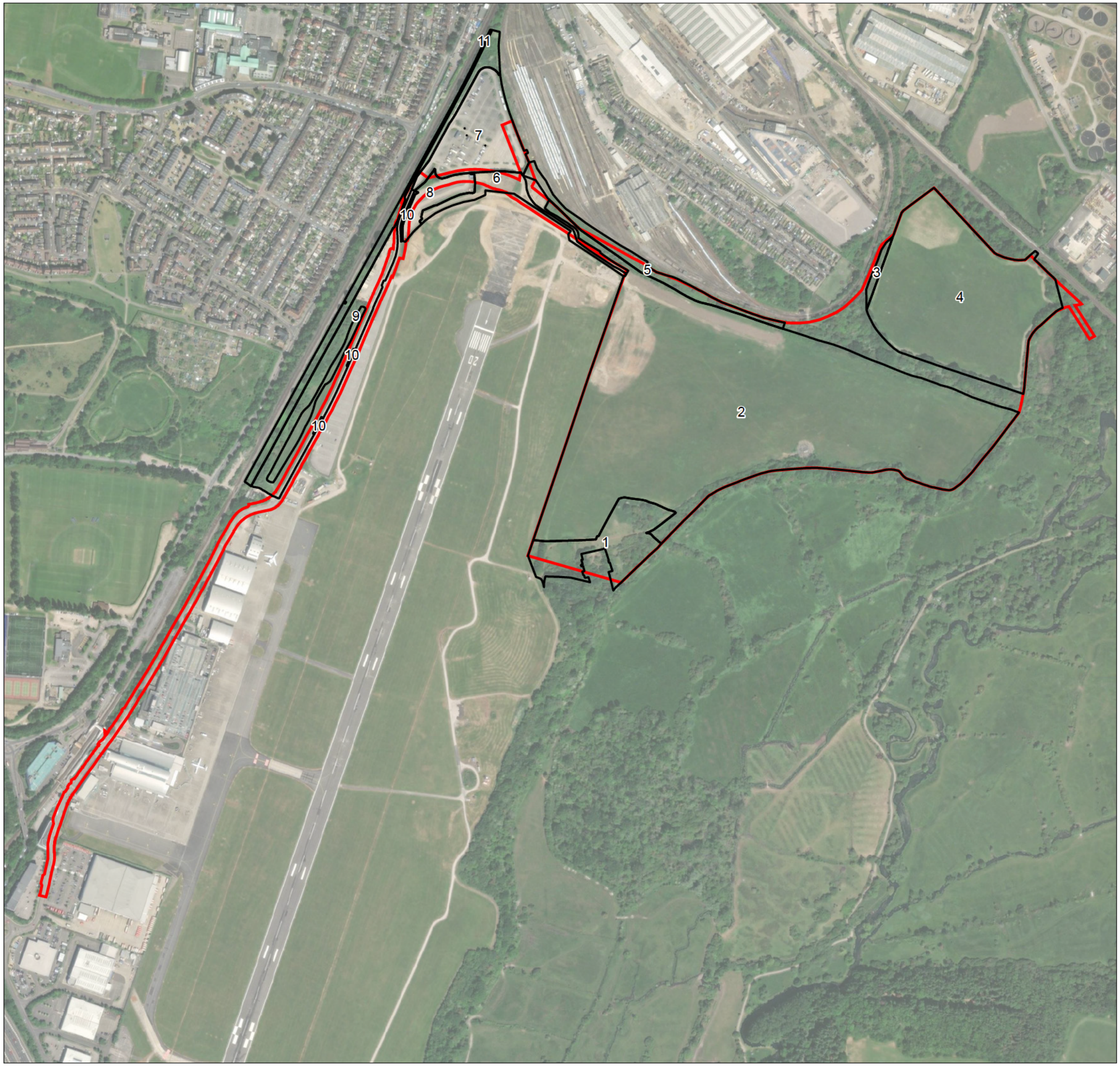
Map 2 Quadrat Locations

Map 3 National Vegetation Classification (NVC)

Map 4a Survey Area: UK Habitat Classification

Map 4b Proposed development Redline Area: UK Habitat Classification

Map 5 Species of Conservation Interest



MAP 1 Survey Area and Survey Compartments

KEY

Site boundary

Survey compartments

SCALE: 1:6,500 at A3

Metres

0 100 200 300 400 500

N

EPR

CLIENT: Bloc Works

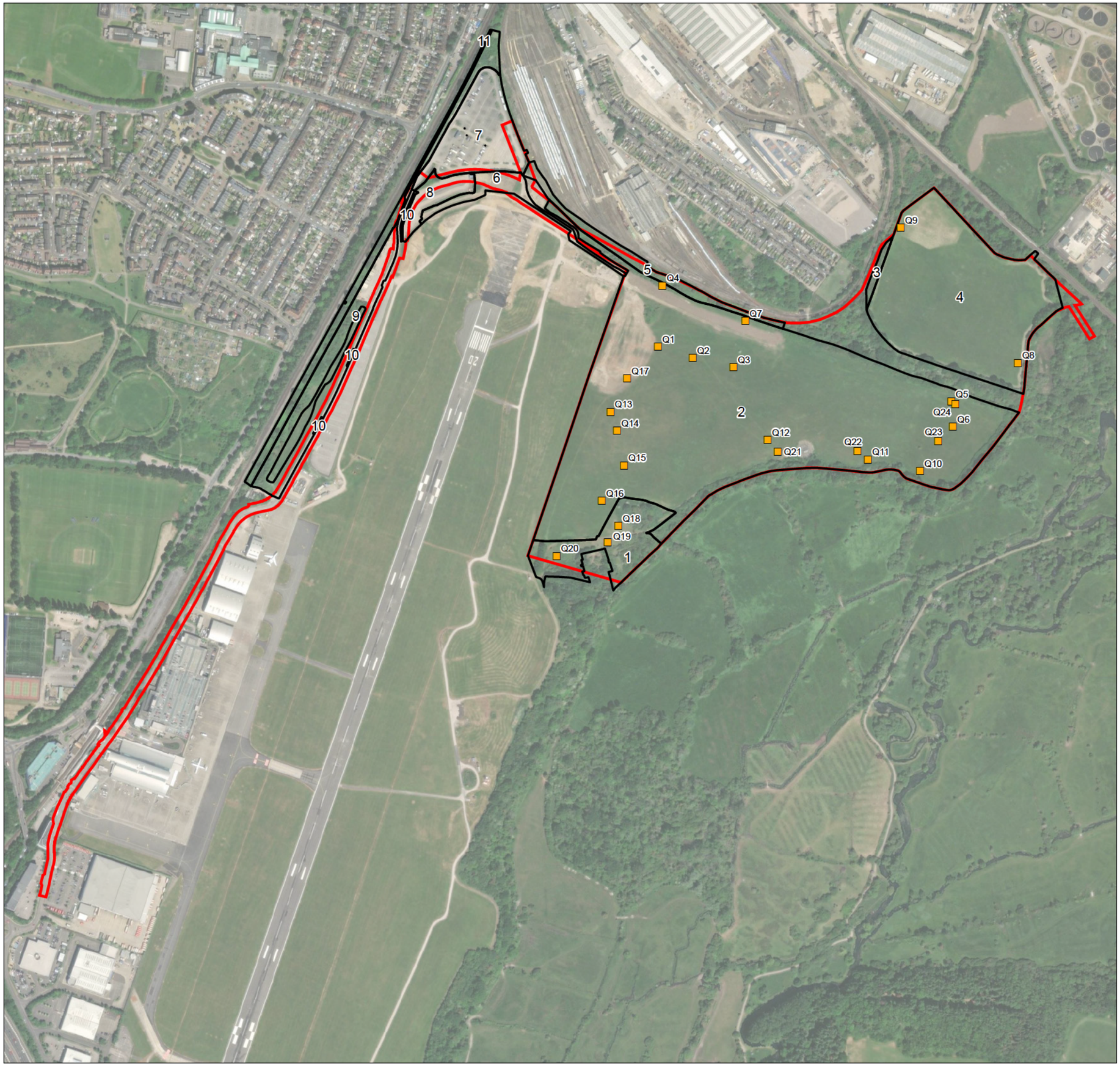
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DATE: 21 May 2025

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Aerial Image: Maxar, Microsoft



MAP 2 Quadrat Locations

KEY

Site boundary

Survey compartments

Quadrats

SCALE: 1:6,500 at A3

Metres

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N

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CLIENT: Bloc Works

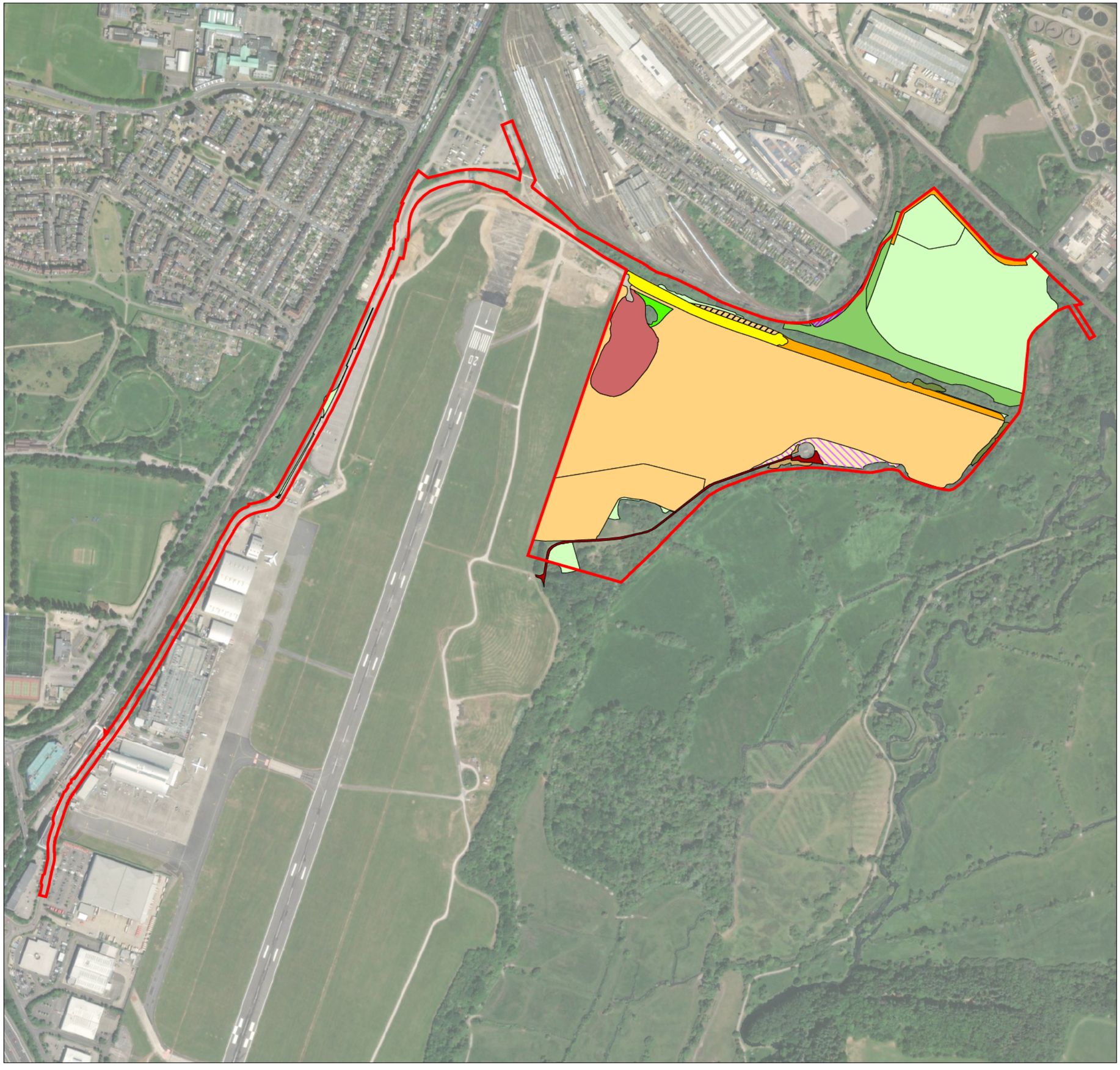
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DATE: 21 May 2025

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Aerial Image: Maxar, Microsoft



MAP 3 National Vegetation Classification (NVC)

KEY

- Site boundary
- Bramble scrub
- MG1
- Some affinity to MG1
- MG6
- MG6x
- MG6x locally with Schedonorus arundinaceus
- MG6x with Schedonorus arundinaceus
- Does not fit a described NVC community. From seedbank and sowing
- Does not fit a described NVC community. May be from seedbank and sowing
- W21
- W21 + Rubus
- W22
- Does not fit a described NVC community

SCALE: 1:6,500 at A3

Metres

0 100 200 300 400 500

N

EPR

CLIENT: Bloc Works

PROJECT: Southampton Airport - Navigator Quarter

DATE: 23 May 2025

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Aerial Image: Maxar, Microsoft