

**East Midlands Gateway
Phase 2 (EMG2)**

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ENVIRONMENTAL STATEMENT

Volume 2 Technical Appendices

Appendix 9I

Biodiversity Net Gain Report

July 2025

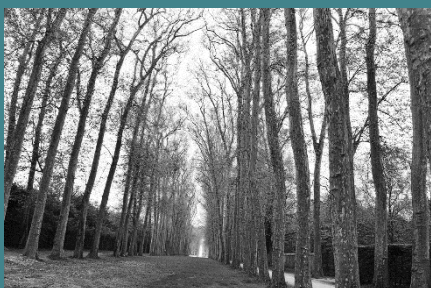
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The East Midlands Gateway Phase 2
and Highway Order 202X and The East Midlands Gateway
Rail Freight and Highway (Amendment) Order 202X

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Biodiversity Net Gain Report

Client

SEGRO Properties Ltd and SEGRO (EMG) Ltd

Project

East Midlands Gateway Phase 2 (EMG2)

Diesworth

Date

June 2025

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1.0 INTRODUCTION

- 1.1 This report has been produced by FPCR Environment and Design Ltd. on behalf of SEGRO Properties Ltd and SEGRO (EMG) Ltd. It provides the results of a biodiversity net gain benchmark assessment undertaken at a Site located on land to the south of East Midlands Airport, Leicestershire for a second phase of, and material change to, SEGRO's East Midlands Gateway Logistics Park (EMG1) which is a Strategic Rail Freight Interchange (SRFI) located to the north of East Midlands Airport. EMG1 is a nationally significant infrastructure development comprising a rail freight terminal and warehousing authorised by The East Midlands Gateway Rail Freight Interchange and Highway Order 2016 (SI 2016/17) (the EMG1 Order) which is approaching substantial completion.
- 1.2 This report aims to provide an assessment of the Site's current ecological value in terms of biodiversity net gain and identify any likely impacts arising from development proposals and mitigation necessary.

Site Location and Context

- 1.3 The proposed second phase to EMG1 (known as EMG2), comprises of three interrelated component parts as follows, and collectively they are referred to as the Scheme:
- **Main Site** (herein referred to as 'the Site') – A new warehousing and manufacturing employment park located south of East Midlands Airport and the A453, and west of the M1 motorway. This part of the site falls within the 'East Midlands Airport and Gateway Industrial Cluster' (EMAGIC) site, which forms part of the East Midlands Freeport designated by the Government in 2022;
 - **Highways Works** – Highways works to the strategic road network including improvements at junction 24 of the M1 motorway and the road network interacting with that junction; and
 - **EMG1 Works** – Additional warehousing together with works to increase the permitted height of the cranes at the rail-freight terminal, improvements to the EMG1 public transport interchange and site management building.
- 1.4 The Site is bounded to the east by the A42 and M1 and the A453 along the northern boundary (SK 461 249). Surrounding land-use is dominated variously by grassland and arable field compartments bordered by hedgerows and scattered mature trees, with Diseworth village to the south-west of the Site.
- 1.5 The Site, approximately 100ha in size, was dominated by arable field compartments bounded by hedgerows, with one improved grassland, one semi-improved grassland field compartment and areas of standing water also present. The A453 and its associated grassy verges formed the northern extent of the Site.

Site Proposals

- 1.6 The location of the **Scheme** is described in Chapter 2 of the ES for the Site with reference to its various component parts. In brief, the majority of new build development will be on the Main Site. The remaining components of the proposals are located on land within EMG1 and on land required for off-site highway improvements.

Aims and Objectives

- 1.7 At this point mandatory BNG has not been brought into force for NSIP applications. A government consultation is ongoing, which covers BNG for NSIP applications, and as such, there is no committed date for the implementation of mandatory BNG for NSIP projects. The applicant has undertaken a BNG assessment as a voluntary measure in compliance with the published rules for non-NSIP projects.
- 1.8 The site has been assessed, covering each of the three elements. The results are presented as a whole with reference made to the specific results from each of the three elements of the project.
- 1.9 This Biodiversity Net Gain Statement is based on the minimum information requirements set out in Article 7 of the Town & Country Planning (Development Management Procedure) (England) Order 2015 (summarised by Paragraph 11 of the Department for Levelling Up, Housing and Communities (DLUHC) guidance¹). The scope and objectives of this report are to:
- To provide a statement as to whether any habitat degradation has taken place on the Site since 30th January 2020 such that an earlier habitat state should be considered to be the baseline value of the Site for the purposes of biodiversity net gain as prescribed within Schedule 14 of the Environment Act 2021 which would then be justified and detailed;
 - To provide a statement regarding the presence or absence of 'irreplaceable habitats' as set out in Column 1 of the Schedule to the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024, and describe of any such habitats present within the Site;
 - Summarise the results of the baseline UKHab survey undertaken on the Site and to present the results of habitat condition assessment surveys following the Statutory Defra Biodiversity Metric Technical Guidance;
 - Present the results of the Statutory Defra Biodiversity Metric assessment completed for the indicative proposals.
- 1.10 This report has been prepared to support an Ecological Appraisal prepared for the Site, which provides a detailed description of the habitats present. This report provides only a summary description of the habitat baseline and should be read in conjunction with the ES chapter Appendix 9.1 Ecological Appraisal (FPCR, 2024).
- 2.0 POLICY
- NPPF
- 2.1 The revised NPPF (2024) seeks to ensure that the planning system contributes to and enhances the natural and local environment, protects and enhances biodiversity and geodiversity by:
- 187. d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;*
- 192. b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.*

The Environment Act

- 2.2 From 12th February 2024, BNG is mandatory for all minor and significant applications (excluding DCO / NSIP) under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).
- 2.3 Part 6 of the Environment Act 2021 is entitled 'Nature and Biodiversity'. Within this part is section 98, entitled 'Biodiversity gain as condition of planning permission'. It says that 'Schedule 14 makes provision for biodiversity gain to be a condition of planning permission in England'. Part 1 of Schedule 14 contains the requirement for biodiversity net gain, including the requirement for 10%.

Local Policy

- 2.4 The Site is not formally identified within the Leicestershire Local Plan¹ nor are any habitat types found within the Site. Furthermore, the local plan does not establish a requirement for any further net gain provision more than the statutory requirement of 10%.

¹ Leicestershire Local Plan 2011-2031. (2024) Available at: https://www.nwleics.gov.uk/pages/local_plan

3.0 METHODOLOGY

Baseline Habitat Assessment

3.1 This report accompanies an Ecological Appraisal for the Site which has been undertaken to inform the development proposals and to provide recommendations for mitigation and enhancement (of which includes measurable biodiversity net gain). The following elements from the Ecological Appraisal have also been used to inform this assessment:

- A walkover survey which broadly followed the standard UKHAB 2.0 survey methodology.
- A desktop study was undertaken by consulting Leicestershire & Rutland Environmental Records Centre (LRERC), Derbyshire Biological Records Centre (DBRC), and Nottinghamshire Biological and Geological Record Centre (NBGRC) and the Multi Agency Geographic Information for the Countryside (MAGIC) website².
- Habitat Condition Assessment Survey

3.2 Full details of the survey methodologies employed during the above surveys are provided in the accompanying Ecological Appraisal (FPCR 2024).

3.3 Field surveys were conducted on 22nd February and 20th April 2022 for the main site with update surveys done on 13th June 2024. The additional areas in the updated site boundary were surveyed 3rd July, 4th July, 5th July, 10th July, 6th August and 14th November 2024.

River Condition Assessment

3.4 The River Condition Assessments (RCA) were completed by accredited and experienced RCA assessors at FPCR. The team have many years of experience in ecology consultancy including riparian surveys and are accredited to be able to carry out MoRPh field surveys and river type desk studies. This includes recording data using the RCA information system and interpreting RCA indicators and scores for baseline and post-intervention scenarios.

3.5 The field surveys were carried out during optimal conditions as outlined in the MoRPh methodology with low/normal flow conditions. In the MoRPh methodology rivers under 5m wide have a module length of 10m. Therefore, in accordance with the methodology each sub-reach consisted of 5x10m (MoRPh 5) modules representative of a maximum 250m stretch.

The Statutory Biodiversity Metric

3.6 DEFRA's published biodiversity net gain metric is an MS Excel spreadsheet that is used to quantify the predicted net-change in biodiversity value ("biodiversity units") of a proposed development site before and after development. It treats the flat "habitats" and linear features "hedgerows" separately, and is based on

² [Online]. <http://magic.defra.gov.uk/>

pre-determined values, along with published written guidance, set by a Natural England-led team of experts. The latest version of this metric was published in February 2024.

- 3.7 To facilitate this, the Site has been mapped and digitised using the Biodiversity Metric QGIS Template, with the existing habitats identified and areas automatically generated. In accordance with the Metric User Guide, habitats have been defined under UK Habitat Classification. The detailed landscaping proposals for the Site were then uploaded into the QGIS template, and the proposed habitats mapped and digitised to generate areas for each of the habitats proposed for creation.
- 3.8 These pre- and post-development habitat areas were then inputted into the Metric Calculation tool. Pre-development habitats were grouped into their habitat type and condition based on the results of the UKHab and condition assessment surveys, while post-developments were classified into their UKHab type as identified through the classification of proposed habitats within landscaping plans into appropriate UKHab types and their target condition scores. The metric then provides a habitat distinctiveness score for each of the baseline and proposed habitats which are pre-assigned scores based on the habitat type.
- 3.9 The strategic significance of the habitats was also assessed for both the pre- and post-development habitats based on the location of the Site, its proximity to existing areas of biodiversity interest and its setting within wider habitat corridors.
- 3.10 The metric then assigns a range of pre-assigned factors to each of the proposed habitats. These have been advised by subject knowledge experts and are universal multipliers generated by the metric itself for the following variables relevant to habitat creation, enhancement or restoration proposals:
- 3.11 Difficulty of creating or restoring/enhancing a habitat: This pre-assigned score is based on how difficult a particular habitat type is to create or restore/enhance.
 - Temporal risk: This is the ‘time to target condition’ for any particular habitat and determines how long a particular habitat type is likely to take to reach the condition score that the desired condition score assigned to it.
 - Spatial risk: This score is based on the distance between the site of habitat loss and any habitats creation or enhancement proposals at any offsite offsetting solutions.
- 3.12 Full details of the calculation methodology used is provided in The Statutory Biodiversity Metric User Guide³.

Limitations

- 3.13 The UKHab habitat map has been produced from detailed field notes and informed by aerial imagery and OS mapping.
- 3.14 Natural ecological communities are susceptible to change; at times this change can be rapid as a result of internal and external environmental factors. The biodiversity offsetting calculations are based on ecological

³ DEFRA (2024), The Statutory Biodiversity Metric User Guide. Available at: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>

assessments of habitats carried out during 2024; as a result, changes which may affect the conclusions of this report may occur, if a prolonged period of time elapses prior to the commencement of the project.

4.0 BASELINE CONDITIONS

- 4.1 Summary results from the desk study search around the Site can be found in the ES Chapter Appendix 9.1: Preliminary Ecological Appraisal (FPCR, 2024).

Habitat Degradation

- 4.2 The project team has confirmed to FPCR that no purposeful habitat degradation has occurred onsite.

BNG Assessment Date

- 4.3 The site's biodiversity pre-development value is attributed to the habitats surveyed between 13th June and 14th November 2024 during the initial assessment. The results of this survey have been revised during several subsequent site visits to ensure the habitat types and conditions remain unchanged and accurate.

Strategic Significance

- 4.4 No formal areas of strategic significance were identified on or adjacent to the Site within the Leicestershire Local Plan. No impacts were identified to the statutory or non-statutory designated sites within the respective buffer zones for the site.
- 4.5 Linear features including hedgerows and watercourses provide connectivity to the wider habitats found around the site. Some of these features are retained and suitably buffered from the development. Creation of new hedgerows and watercourses across the site alongside the retention of some existing linear features, it is considered that the connectivity of the site will not be reduced.

Irreplaceable Habitats

- 4.6 One veteran tree (T4), as classified under the NPPF definition, was present on site located along the eastern boundary. Tree T4 also qualified as a veteran tree under the new irreplaceable habitat definition of veteran trees.
- 4.7 A further fourteen trees were classified as veteran trees using the new irreplaceable habitat definition. (T7, T13, T14, T32, T34, T35, T43, T51, T55, T59, T65, T66, T81, T85). There is a lower bar for qualification within the irreplaceable habitats definition as opposed to the traditional NPPF definition. The fourteen additional trees classified as veteran trees under this new definition were all mature ash *Fraxinus excelsior* trees, a species that is in general decline due to the fungal disease ash die back. These trees meet this definition due to the presence of deadwood, this feature is not unusual for trees of this species in the local area.
- 4.8 Under the current proposals T13, T14, T32, T34, T45, T43, T59, T65 and T66 are set to be lost, with the other veteran trees being retained. Where retention was is not possible, bespoke compensation for the loss of these irreplaceable habitats will be required and will be agreed. The first draft of this mitigation strategy is set out within the LEMP and is being actively discussed with the Forestry Commission.

On-site Habitats

- 4.9 The Main Site comprised largely of arable cropland with some areas of modified and other neutral grassland. A large network of hedgerows is present across the main site, forming the boundaries to the

arable fields. Other linear features present include a ditch in the eastern portion of the main site and the Diesworth Brook running along a section of the western boundary.

- 4.10 The Highways works areas of the site comprised largely of built linear features with associated other neutral grassland and modified grassland verges. Areas of broadleaved woodland and scrub, as well as several hedgerows also ran alongside the highways works areas.
- 4.11 The EMG1 works area of the site comprised of bare ground and modified grassland, as well as areas of developed land associated with the EMG1 development.
- 4.12 A summary of the baseline habitats present, and their corresponding condition assessments is provided in Table 1 below and are depicted on Figure 1 with the corresponding condition and distinctiveness values of each parcel used as part of the calculation for the baseline biodiversity units depicted in Figure 2. Full Habitat descriptions are given in the ES Ecology Chapter Appendix 9.1: Preliminary Ecological Appraisal (FPCR, 2024).

Table 1: Baseline Habitat Summary

Habitat	Description	Distinctiveness	Condition
Cereal Crops	The majority of the Main Site and Off-site mitigation area comprised a mixture of recently ploughed arable field compartments and arable fields planted with winter wheat, with narrow grassy margins (1-2m)	Low	N/A
Temporary Grass and Clover Leys	An area of arable cropland within the Highways works area adjacent to Junction 24 of the M1 motorway.	Low	N/A
Modified Grassland	One modified grassland horse grazed field was present within the Main Site boundary. It had a sward height of 5-15cm dominated by perennial ryegrass <i>Lolium perenne</i> , with abundant crested dog's-tail <i>Cynosurus cristatus</i> .	Low	Good
Modified Grassland	Areas of modified grassland were present in the Highways works area within the road verges adjacent to the M1, the A453 and Donnington Park services.	Low	Moderate
Modified Grassland	A strip of modified grassland was present adjacent to the track Long Holden which runs adjacent to the southern boundary of the Main Site.	Low	Poor
Other Neutral Grassland	Areas of other neutral grassland were located within the EMG1 works area along the bund to the east of the development area.	Medium	Good
Other Neutral Grassland	Areas of other neutral grassland were located within the EMG1 works area along the bund to the north of the development area.	Medium	Moderate
Other Neutral Grassland	One semi-improved neutral grassland field was present within the Main Site. It had a sward height of 5-40cm dominated by Yorkshire fog <i>Holcus lanatus</i> , with locally dominant red fescue <i>Festuca rubra</i> and perennial ryegrass <i>Lolium perenne</i> A large number of grassy verges within the Highways works areas had a species composition of other neutral grassland.	Medium	Poor
Bramble Scrub	Areas of bramble scrub were present in the Highways works area within the road verges adjacent to the A453 and Donnington services.	Medium	N/A
Mixed Scrub	Dense hawthorn, willow, elder <i>Sambucus nigra</i> scrub was present in association with pond P1 and pond P3	Medium	Moderate
Mixed Scrub	Areas of mixed scrub were present in the Highways works area within the road verges adjacent to the M1, the A453 and Donnington Park services.	Medium	Poor
Ponds (non-priority habitat)	Pond (P3) was located adjacent to Donnington Park Services. It comprised a wet depression, with a small rectangular area of open water at its centre.	Medium	Good

Ponds (non-priority habitat)	Pond (P2) is a field pond adjacent to the south side of a hedgerow between Hyam's Lane and the A453.	Medium	Moderate
Ponds (non-priority habitat)	Pond (P1) was seasonal pond located just north of Hyam's Lane in the south western corner of a field compartment.	Medium	Poor
Tall Forbs	Two areas of tall ruderal vegetation were present in association with an area of bare ground in the centre of the Main Site. Species recorded included bramble, common dandelion, cocksfoot and common nettle	Low	Good
Tall Forbs	A strip of tall ruderal vegetation was present along the northern boundary of the most westerly arable field on the Main Site. Species included dominant common nettle with false oat grass, hogweed, creeping thistle and cow parsley also present.	Low	Moderate
Artificial Unvegetated Unsealed Surface	Areas of artificial unvegetated unsealed surface were present within the EMG1 works area from the previously consented development works.	Very Low	N/A
Bare Ground	Areas of bare ground were present within the Highways works area along road verges near Donnington Park Services.	Low	Poor
Bioswale	An area of bioswale was present within the Highways works area adjacent to the access roundabout for EMG1.	Low	Good
Built linear features	The majority of the Highways works area consists of roads, namely the M1, the A453 and the A50.	Very Low	N/A - Other
Developed land; sealed surface	Areas of hardstanding and buildings were located within the Highways works area and EMG1 works area associated with the EMG1 development.	Very Low	N/A - Other
Introduced shrub	Areas of introduced shrub were located within the Highways works area and EMG1 works area associated with the EMG1 development.	Low	Condition Assessment N/A
Sustainable drainage system	SUDs features were located to the within the EMG1 works area.	Low	Good
Sustainable drainage system	SUDs features were located to the within the EMG1 works area.	Low	Moderate
Ruderal Vegetation	One area of ruderal vegetation was located to the southwest of the EMG1 works area.	Low	Poor
Other woodland; broadleaved	Areas of broadleaved woodland were present in the Highways works area within the road verges adjacent to the M1, the A453 and Donnington Park services. The western Site boundary was bordered by a woodland block, comprising ash, hawthorn, blackthorn, dog rose, elder and elm.	Medium	Moderate
Other woodland; broadleaved	Areas of broadleaved woodland were present in the Highways works area within the road verges adjacent to the M1, the A453 and Donnington Park services.	Medium	Poor
Other woodland; mixed	One area of mixed woodland was located to the south of the EMG1 works area.	Medium	Moderate
Rural Tree	Mature and semi-mature trees were present throughout the Main Site, mainly in association with hedgerows. Tree species typically included: ash <i>Fraxinus excelsior</i> , English Oak <i>Quercus robur</i> , field maple <i>Acer campestre</i> , crack willow <i>Salix fragilis</i> and sycamore <i>Acer pseudoplatanus</i> .	Medium	Good, Moderate
Urban Tree	Mature and semi-mature trees bordering developed land or built linear features were present along the boundaries of the Main Site area and within the Highways works and EMG1 works areas. Tree	Medium	Good, Moderate

	species typically included: ash <i>Fraxinus excelsior</i> , English Oak <i>Quercus robur</i> , field maple <i>Acer campestre</i> , crack willow <i>Salix fragilis</i> and sycamore <i>Acer pseudoplatanus</i> .		
Line of trees	Lines of trees were present in the Highways works area within the road verges adjacent to the M1, the A453 and the A50.	Low	Moderate
Native Hedgerow – associated with bank or ditch	Hedgerows were present across the Main Site works area, Highways works area and Offsite mitigation area.	Medium	Good
Native Hedgerow – associated with bank or ditch	Hedgerows were present across the Main Site works area, Highways works area and Offsite mitigation area.	Medium	Good
Native Hedgerow – associated with bank or ditch	Hedgerows were present across the Main Site works area, Highways works area and Offsite mitigation area.	Medium	Moderate
Native hedgerow with trees	Hedgerows were present across the Main Site works area, Highways works area and Offsite mitigation area.	Medium	Poor
Native hedgerow	Hedgerows were present across the Main Site works area, Highways works area and Offsite mitigation area.	Medium	Moderate
Native hedgerow	Hedgerows were present across the Main Site works area, Highways works area and Offsite mitigation area.	Low	Good
Native hedgerow	Hedgerows were present across the Main Site works area, Highways works area and Offsite mitigation area.	Low	Moderate
Non-native and ornamental hedgerow	A non-native ornamental hedgerow was present in the Highways works area within the road verges adjacent to the A453.	Low	Poor
Ditches	<p>Within the Main Site works area a shallow field ditch runs through the south-east of the site, feeding into an offsite subterranean drainage system.</p> <p>A ditch runs along the western boundary of the Offsite Mitigation area. As the ditch comes within 10m of the site boundary, it is considered that the associated riparian zone extends into the site redline.</p> <p>Two ditches were present within the existing SUDs features within the EMG1 site boundary, which were created under the previous consent.</p>	Medium	Poor
Other rivers and streams	Beyond the western boundary of the Main Site, a small tributary of the Diesworth brook runs from north to south. As the stream comes within 10m of the site, it is considered that the associated riparian zone extends into the site redline.	High	Fairly Poor
Culvert	<p>Sections of a tributary to the Diesworth brook adjacent to the western boundary of the Main Site are culverted.</p> <p>One section of the ditch in the Offsite Mitigation Area is culverted.</p>	Low	Poor

5.0 PROPOSED DESIGN

- 5.1 It must be acknowledged that the assessment of the proposed design is based on early concept designs. The full details of the habitats proposed on site will be designed post-consent and submitted as part of the gain plan along the site of a suitable HMMP. As such, the results of the BNG assessment should be treated as indicative.
- 5.2 The proposals ; in this report aims to create habitats appropriate to the local area with realistically achievable conditions.
- 5.3 Indicative post-development habitats are shown in Figure 2. The proposed habitat distinctiveness and condition are shown in Figure 5. Details of the proposed watercourses are shown in Figure 7.

Habitats

- 5.4 Table 2 summarises the management recommendations that will be employed to achieve the target conditions for each habitat type.

Retained habitats

- 5.5 Habitat retention across the Main Site is limited to the Hedgerows and habitats along Hyams Lane, as well as the pond located in the northeastern portion of the main site. Retained habitats can be seen on Figure 3.
- 5.6 On the Highway Works area of the site habitats have been retained where possible, including large areas of road verges and built linear features.
- 5.7 On the EMG 1 area of the site there is no habitat retention.

Habitat Creation

- 5.8 Proposed habitats include amenity grass areas, tree planting, and sustainable drainage features within the green infrastructure. Woodland, scrub and wildflower grassland planting is included along the western and southern portion of the Main Site. An area of orchard is to be created in the western portion of the Site as well as a pond surrounded by scrub habitats.

Hedgerows

- 5.9 Table 3 describes the management recommendations that will be employed to achieve the target conditions for each habitat type.

Retained Hedgerows

- 5.10 The northern boundary hedgerows, with the exception of small lengths where road access will be implemented are to be retained across the Main Site Area. Retained hedgerows can be seen on Figure 3.
- 5.11 Hedgerows across the Highways works area are largely retained, with hedgerows being lost along the proposed new slip road leading off the M1 motorway.
- 5.12 The following measures will be employed within the Site Boundary for the existing retained hedgerows:
- Hedgerows will be subjected to reduced management to encourage the establishment of tall, bushy hedgerows.
 - Additional planting of a range of native hedgerow species will be carried out within retained hedgerows to close up gaps where they develop and create more continuously dense and bushy features.

- Fertiliser use will be prohibited within grasslands adjacent to hedgerows to prevent nutrient enrichment as a result of the Site management operations.
- A minimum of a 1m buffer adjacent to the hedgerows will be managed as ‘undisturbed’ ground where possible within the Site boundary. Management of grasslands within these areas adjacent to hedgerows will be in line with the management of wildflower grassland areas

Enhanced Hedgerows

- 5.13 Hedgerows along the southern and eastern boundaries of the Main site and a large number of hedgerows across the Main site are to be enhanced from native hedgerows (including those associated with ditches and trees) to species-rich native hedgerows (associated with ditches and trees where applicable).
- 5.14 Supplementary planting of a variety of native woody species will be incorporated into the hedgerows to increase their species richness. Management should follow the prescription detailed above in the retained hedgerow section.

Hedgerow Creation

- 5.15 A large number of species-rich native hedgerows with trees are to be created across the Main Site.
- 5.16 Approximately 200m of species-rich native hedgerow is to be created on the EMG1 site in the green space around the developed area. The location for these is not yet fixed, as this is subject to further detailed landscaping input.

Watercourses

- 5.17 Table 4 provides a summary of the management recommendations which will be employed to achieve the target conditions for each habitat type.

Watercourse Retention and Enhancement

- 5.18 The ditch in the southeastern corner of the Main Site is proposed to be lost. The remaining watercourses are to be retained and are buffered from the development works by the proposed green infrastructure.
- 5.19 Retained watercourses can be seen on Figure 3.

Watercourse Creation

- 5.20 Watercourse creation will comprise a network of ditches created within the base of the proposed attenuation features. These features will have a design similar to those created at consented EMG1 site. Poor condition will be targeted, as such creation prescriptions will be limited to ensuring a naturalised feature is created.

Table 2: Proposed Habitats Summary

Habitat	Targets for Creation/Management	Distinctiveness	Condition
1. Modified grassland	<p>Amenity grassland areas throughout the green infrastructure, primarily around plots. These amenity grassland areas will primarily be managed for their amenity value, but this should include:</p> <ul style="list-style-type: none"> Regular management to prevent scrub/bracken encroachment Reseeding any areas of failed establishment 	Low	Poor
2. Other neutral grassland	<p>Wildflower grassland areas around the western and southern portions of the Site and within the offsite mitigation area. The focus of management for these grasslands will be on maximising their biodiversity to create a diverse sward by employing the following management measures:</p> <ul style="list-style-type: none"> Soil preparation to ensure a nutrient poor substrate. Using a native species-rich seed mix to achieve a diverse sward. Management will be implemented to create a varied sward height, following the supplier's specifications with one cut per year following establishment. Reseeding any areas of failed establishment to ensure cover of bare ground is not more than 5%, including areas of physical damage. Overseeding to maintain a minimum of 10 species per m² excluding species indicative of suboptimal condition Management of undesirable species to ensure no more than 20% cover of bracken, no more than 5% cover of scrub, and total absence of invasive non-native plant species (as listed on Schedule 9 of WCA5). 	Medium	Good
3. Mixed scrub	<p>Areas of native scrub planting will be incorporated at woodland edge areas, primarily along western edge of the development area, to contribute to a mosaic of habitats and provide commuting corridors. These will be managed to achieve good condition through the following measures:</p> <ul style="list-style-type: none"> Planting mix to use a diverse range of native species, with no one species compromising more than 75% of the mix. Replace any failed woody specimens. Targeted weeding/treatment to limit/remove invasive/undesirable species to below 5% ground cover (typical species include but are not limited to- Creeping thistle <i>Cirsium arvense</i>, cherry laurel <i>Prunus laurocerasus</i>, common nettle <i>Urtica dioica</i>, snowberry <i>Symphoricarpos</i> spp, cotoneaster <i>Cotoneaster</i> spp). Management will encourage a diverse structure to scrub, with open areas in blocks of scrub to encourage natural regeneration. Allow a graduated edge to form with scattered scrub and tall grassland along the peripheries where possible. 	Medium	Good
5. Built linear features	N/A	Very low	N/A
6. Developed land; sealed surface	N/A	Very low	N/A
7. Sustainable drainage system	Due to the proximity to East Midlands Airport, SUDs feature will be required to be dry for most of the year. These features will be designed with undulating bases which will support a range of plants and species.	Low	Moderate

8. Other woodland; broadleaved	Woodland planting around western, southern and eastern developed areas. These woodlands will target Moderate condition through the following measures: <ul style="list-style-type: none"> Planting will ensure a diversity of five or more native species per block. Replacement of any failed woody specimens until the woodland is established. Management will encourage a diverse structure with multiple age classes, varied vertical structure, and presence of temporary open spaces through ongoing selective thinning and coppicing. Log piles will be provided in all woodland plots, and both fallen and standing deadwood will be maintained. Removal of any invasive plant species including rhododendron and laurel. 	Medium	Moderate
9. Urban tree	Tree planting within developed areas. Trees will be managed to achieve equivalent value of those present pre-development through the following measures: <ul style="list-style-type: none"> Only native tree species in planting scheme. Area beneath trees maintained as vegetation (not paved/gravelled over) Pruning regime to be limited to that required to maintain tree health, with exception of public health and safety requirements. Avoid herbicide use in close proximity to trees (<1m). Replace any failed specimens. 	Medium	Moderate
10. Rural tree	Tree planting within areas of green space. Trees will be managed to achieve equivalent value of those present pre-development through the following measures: <ul style="list-style-type: none"> Only native tree species in planting scheme. Area beneath trees maintained as vegetation (not paved/gravelled over) Pruning regime to be limited to that required to maintain tree health, with exception of public health and safety requirements. Avoid herbicide use in close proximity to trees (<1m). Replace any failed specimens. 	Medium	Moderate
11. Other Grassland Neutral	Areas along Highways Works road verges that will likely be lost due to highways improvements are to be reinstated to their baseline condition of poor once all works are completed in those areas. Management should include: <ul style="list-style-type: none"> Using a native species-rich seed mix to achieve a diverse sward. Regular management to prevent scrub/bracken encroachment Reseeding any areas of failed establishment 	Medium	Poor
12. Traditional Orchards	An area of nut orchards will be created in the south-west of the site. Nut species will be used in place of soft fruit due to the restriction placed on habitat creation by the proximity to the airport. This will be managed to achieve moderate condition through the following measures: <ul style="list-style-type: none"> No grazing stock to be used in this area; Pruning works will focus on promoting the longevity of the trees; Replacement planting of failed specimens during establishment period; Grassland to be seeded using a native species rich seed mix to achieve a diverse sward; Management will encourage a varied sward height of the grassland below the canopy; and Limit encroachment of any bracken, bramble, or scrub clumps. 	High	Moderate
13. Ponds (non-priority habitat)	Two ponds to be created with the southwestern corner of the site. The following design and management prescriptions will be employed to reach the target condition: <ul style="list-style-type: none"> The features will be designed to allow water levels to fluctuate naturally through the year and will not be connected to other waterbodies via streams, ditches, or artificial pipework; 	Medium	Moderate

	<ul style="list-style-type: none">• The ponds will not be stocked with fish, and they will be monitored to ensure that fish are not artificially introduced;• Management of nearby habitats will be free from fertilizer input to prevent eutrophication of the ponds. The ponds will be monitored for the establishment of duckweed, and this will be removed where it becomes prevalent;• The ponds will be surrounded by a minimum of 10m of semi-natural habitats of medium distinctiveness;• The surface of the ponds will be no more than 50% shaded by woody bankside species; and• Marginal and aquatic vegetation will be introduced and allowed to establish such that it covers at least 50% of the ponds area that is less than 3m deep.		
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Table 3 Proposed Hedgerow

Hedgerow type	Targets for Creation/Management	Distinctiveness	Condition
13. Species-rich native hedgerow	<p>Species-rich native hedgerows with adjacent ditches will be created around the perimeter of the developed area of the main site, adjacent to the proposed footpath on the eastern boundary of the site and in larger areas of greenspace within the developed area of the main site.. Management prescriptions to achieve the target condition should include:</p> <ul style="list-style-type: none"> Failed specimens will be replaced during establishment on a like-for-like basis Fertiliser use will be prohibited within grasslands in the Site Boundary that are adjacent to hedgerows to reduce nutrient enrichment; and A minimum of 1m adjacent to the hedgerows will be managed as 'undisturbed' ground where possible. Management of grasslands within these areas adjacent to hedgerows will be in line with the management of meadow grasslands. 	Medium	Moderate
13. Species-rich native hedgerow – associated with bank or ditch	<p>Species-rich native hedgerows with adjacent ditches will be created along historical hedgerows lines in the offsite mitigation. Management prescriptions to achieve the target condition should include:</p> <ul style="list-style-type: none"> A shallow ditch ~50cm deep and 100cm wide will be created along one side of the ditch to provide varied structural diversity and seasonally wet areas. Failed specimens will be replaced during establishment on a like-for-like basis Hedgerows will be managed to encourage tall, wide, and bushy features with only one side of hedgerows cut each year; Fertiliser use will be prohibited within grasslands in the Site Boundary that are adjacent to hedgerows to reduce nutrient enrichment; and A minimum of 1m adjacent to the hedgerows will be managed as 'undisturbed' ground where possible. Management of grasslands within these areas adjacent to hedgerows will be in line with the management of meadow grasslands. 	High	Good

Watercourse type	Targets for Creation/Management	Distinctiveness	Condition
13. Ditches	New ditches will be created within the SUD's features on the western and southern edges of the Main Site, in line with the existing ditches within the SUDs features surrounding EMG1. A new ditch will also be created to the south of the	Medium	Poor

Watercourse type	Targets for Creation/Management	Distinctiveness	Condition
	<p>developed area of the main site, providing connectivity between the SUDs located here. These ditches will primarily be created and managed for their value as drainage features, however these will have the following prescriptions:</p> <ul style="list-style-type: none">• The ditches will be less than 5m wide and created so as to be likely to retain water for more than 4 months of the year.• Management will ensure physical damage, such as that from machinery use or damaging management activities, is evident for less than 5% of the ditch.• The ditches will be kept free of any non-native and/or invasive species.		

Table 4: Proposed Watercourses

6.0 ON-SITE BIODIVERSITY NET GAIN (BNG) METRIC SUMMARY - TBC

6.1 *The following section is a placeholder for the final results. And will be updated once the scheme's proposals and site boundary have been finalised ahead of the formal submission.*

6.2 The indicative habitat creation proposals highlighted within this report have been input into the Statutory Biodiversity Metric. Table 5 provides a summary of the headline results of the Statutory Biodiversity Metric assessment completed for the proposals. These results are indicative and will be finalised and updated in accordance with any BNG condition which will be appended to the schemes consent.

Table 5: Biodiversity Unit Summary - TBC

Site element:		Main site & Highways (EMG2)	EMG1	Combined
On-site Baseline	Habitat Units	TBC	TBC	TBC
	Hedgerow Units	TBC	TBC	TBC
	Watercourse Units	TBC	TBC	TBC
On-site Post-Intervention	Habitat Units	TBC	TBC	TBC
	Hedgerow Units	TBC	TBC	TBC
	Watercourse Units	TBC	TBC	TBC
On-site Net Unit Change (On-site Net Percentage Change)	Habitat Units	TBC	TBC	TBC
	Hedgerow Units	TBC	TBC	TBC
	Watercourse Units	TBC	TBC	TBC

6.3 It is anticipated that the assessment of the Main Site and Highways areas (EMG2) will demonstrate that the indicative on-site proposals deliver a net gain of XX habitat units, representing a gain in excess of 10. The proposals deliver a net gain of XX hedgerow units, representing a gain in excess of 10% . The proposals deliver a net gain of XX watercourse units, representing a gain in excess of 10% .

6.4 The assessment of the EMG1 areas has demonstrated that the indicative proposals deliver a net gain of XX habitat units, representing a gain in excess of 10% . The proposals deliver a net gain of XX hedgerow units, representing a gain in excess of 10% . The watercourse present on the baseline are likely retained in their entirety, with no new watercourses being created in the proposals for EMG1.

6.5 The assessment has demonstrated that when the EMG1 and EMG2 proposals are combined, on-site proposals deliver a net gain of XX biodiversity units within the area-based habitat category assessments, a net gain of XX biodiversity units in the hedgerow category, and a net gain of XX biodiversity units in the watercourse category. This represents a gain in excess of 10% for area-based habitat, hedgerows and watercourses.

Habitat Trading

6.6 The current indicative proposals for on-site habitat creation outlined in this report show that the trading rules are satisfied for all distinctiveness bands of area-based habitats, hedgerows and watercourses.

Irreplaceable habitats

6.7 The trees classified as veterans under the definition of irreplaceable habitats will be subject to a bespoke mitigation agreement. The principles of this have been discussed with the LPA and will entail the following

measures. Further details are provided within the Ecology ES chapter and will be detailed in full in a specific mitigation plan prior to development commencing.

6.8 Where the removal of mature and over-mature trees is unavoidable the aim of compensation will be to conserve as much of the dead and decaying wood in a state as close to its prior condition as possible. Preservation of deadwood will involve translocation to the site margins or the Enhancement Area. Specific mitigation will include:

- Move any large diameter dead wood to designated mitigation areas and install it in a range of conditions, e.g. standing trunks, propped/attached aerial large-diameter dead wood, scattered and piled dead wood at tree bases etc. aiming to provide a good approximation of the conditions found on the development site.
- Conserve heart rot features through the development by keeping the main trunks of the large trees intact through removal, or where this is impossible, in as large a pieces as possible.
- The main trunks should be installed as standing deadwood within or immediately adjacent to hedgerows and in semi-shaded conditions to replicate their current environmental conditions as closely as possible.
- Other dead wood needing to be removed from the development site should be placed around the base of the translocated tree trunks in semi-shaded conditions. Translocation of dead wood should take place in the winter when saproxylic invertebrates are dormant.

7.0 CONCLUSIONS

7.1 When combining the on-site current indicative proposals for the Main Site and Highways works (EMG2) and the EMG1 areas, the trading rules are satisfied for all distinctiveness bands of area-based habitats, including hedgerows and watercourses.

7.2 Under the indicative proposals set out in the parameters plan, the development of the Site would deliver a net gain of approximately XX biodiversity units within the area-based habitat category assessments, a net gain of XX biodiversity units in the hedgerow category, and a net gain of XX biodiversity units in the watercourse category. This represents a net gain of greater than 10% for all three categories.

7.3 Further details will be submitted in a biodiversity gain plan following the granting of planning permission. This will demonstrate how a 10% biodiversity net gain will be achieved, including evidence of how any off-site units have been obtained. If required a Habitat Management and Monitoring Plan (HMMP) will also be submitted alongside the biodiversity gain plan detailing the management and monitoring practices that will be employed to deliver any significant on-site enhancements.

