East Midlands Gateway
Phase 2 (EMG2)

Document DCO 6.9J/MCO 6.9J

ENVIRONMENTAL STATEMENT

Volume 2 Technical Appendices

Appendix 9J

Landscape and Ecological Management Plan (LEMP)

July 2025

09

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

SEGRO.COM/SLPEMG2

SEGRO

SEGRO Properties Ltd and SEGRO (EMG) Ltd

East Midlands Gateway 2

ES Appendix 9j

Landscape and Ecological Management Plan

June 2025

FPCR Environment and Design Ltd
Registered Office: Lockington Hall, Lockington, Derby DE74 2RH
Company No. 07128076. [T] 01509 672772 [F] 01509 674565 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

Rev	Issue Status	Prepared / Date	Approved/Date
-	Draft	JDH / 30.06.2025	SJA / …..

CONTENTS

FIGURES

TABLES

APPENDICES

1.0 INTRODUCTION

Purpose and Scope

1.1 The following Landscape and Ecological Management Plan (LEMP) has been prepared by FPCR Environment and Design Ltd. on behalf of SEGRO PLC. It provides a conservation-led plan of objectives and management prescriptions to be undertaken within the strategic on-site Green Infrastructure (GI) covering landscape, habitats and planting within the **DCO Scheme**.

1.2 The LEMP has been produced to accompany an Environmental Statement of the development proposals and Construction Environmental Management Plan (CEMP) and should be read in conjunction with these documents.

1.3 The purpose of the LEMP is to set out framework principles for management during establishment and operation of both the existing conserved GI as depicted in the **illustrative masterplan** submitted as part of the application **(Document 2.6)** and included as **Figure 3.4** to this ES. in order that these perform their intended ecological and landscape functions during operation. These functions are in three parts:

- to ameliorative (e.g. to screen views from sensitive receptors);
- to mitigate/compensate (e.g. to provide alternative habitat for species displaced by the development); and
- to provide enhancement (e.g. providing greater habitat connectivity, securing management of sensitive existing or proposed habitat, providing a biodiversity net gain).

1.4 Management measures required to minimise effects prior to and during construction are outlined in the Construction Environmental Management Plan (FPCR 2025).

1.5 This LEMP will cover the first 30-years following the completion of the development (in terms of both the completion of construction works and of initial habitat creation works).

1.6 The scheme will be subject to scheduled inspection, monitoring and review of all management operations detailed within this LEMP.

1.7 Further relevant information on the Scheme is provided in **ES Chapters 9 and 10**. Compliance with the LEMP will be a requirement of the DCO.

Site Context

1.8 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 Midland Airport and Gateway Industrial Cluster' (EMAGIC) site, which forms part of the East Midlands Freeport designated by the Government in 2022;
- **Highway works-** Highway 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.

1.9 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.

Baseline Conditions

1.10 The location of the Scheme is described in Chapter 2 of the ES for the Site with reference to its various component parts. The majority of new build development will be on the **EMG2 Main Site**.

1.11 In brief, the pre-development baseline context for the **DCO Scheme** is as follows:

- **EMG2 Main Site -** Comprises land immediately south of East Midlands Airport and to the east of the village of Diseworth. It extends to approximately 105ha in size and is dominated by arable field compartments bounded by hedgerows and scattered mature trees. In addition, there is one improved grassland field and one semi-improved grassland field compartment and 3 small areas standing water. Surrounding land-use is dominated variously by grassland and arable field compartments, with Diseworth village to the south-west, East Midlands Airport to the north and the Donington Park Services and the M1 motorway to the east.
- **Highway Works -** While much of the highways land is comprised of hardstanding, a variety of habitats bound the existing infrastructure. This includes woodlands, scrub, hedgerows and individual trees; neutral and modified grasslands; tall forbs and sustainable drainage systems (SuDS).

1.12 Where possible, areas of higher quality habitat such as woodland, trees, hedgerows, and ponds have been retained within the **DCO Scheme**.

Development proposals

1.13 In brief, the proposals for the **DCO Scheme** are as follows:

- **EMG2 Main Site -** a maximum of 300,000sq.m (approximately 3.23 million sq.ft) (GIA) of warehousing and manufacturing floorspace (GIA), with additional 100,000sq.m in the form of internal mezzanine space;
- **Highway Works**- new highway infrastructure and works to the existing highways network- including a new off-slip lane from the M1 northbound at J24 to provide a direct link to the A50 westbound, widening of the A50 eastbound link at Junction 24 and other related works and traffic management measures; and

Legislation and Policy

1.14 All relevant EU and UK nature conservation law will be adhered to in relation to the protection of ecological features and ecological enhancement. This will primarily include the protection afforded to nesting birds under the Wildlife and Countryside Act 1981 (as amended) and also with reference to the protection of great crested newts and bats and their roosts under the Conservation of Habitats and Species Regulations 2010 (as amended). Regard has also been

given to the Local Biodiversity Action Plan (LBAP) and 'Habitats of Principal Importance' (HPI) as listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

1.15 This management plan will have regard to the presence of protected species and related legislation summarised in **Table 1** below.

Table 1: Relevant Protected Species Legislation

Species/group	Legislation	Level of Protection
Nesting birds	Wildlife and Countryside Act 1981 (amended) Section 1 part 1 (a) – (c) and part 2.	• kill, injure or take a bird, take damage or destroy a nest in use or being built • take or destroy an egg • possession or control of wild bird or any part or object derived from, or egg or part of one
Common Lizard and Grass Snake	Wildlife and Countryside Act 1981 (amended) (Schedule 5) Section 9 part 1 and 5.	• intentional killing or injury, sale or possession or publishing/advertising for such purposes.
Bats	Wildlife and Countryside Act 1981 (amended) (Schedule 5) part 4 (b) and (c) and 5. The Conservation of Habitats and Species Regulations 2017.	• intentional or reckless acts which: damage, destroy a place of rest or shelter • disturbing the animal whilst occupying such as place obstructing access to such a place • deliberately disturb bats or damage/destroy a breeding site or resting place
Badgers	Protection of Badgers Act 1992	• protection from killing, injury and taking • protection from interference including damage or blocking a sett or disturbance to a badger whilst occupying a sett
GCN	Wildlife and Countryside Act 1981 (amended) (Schedule 5) Section 9 part 4 (b) and (c) and part 5.	• intentional or reckless disturbance whilst occupying a place of rest or shelter • obstruction of access to place of rest or shelter • sale or possession or publishing/advertising for such purposes • deliberate capture, injury, killing, deliberate disturbance deliberate taking or destroying of eggs, damage or destruction of breeding or resting place • disturbance includes impairment of ability to survive, reproduce, rear young, hibernate or migrate, affect significantly the local distribution or abundance of the species • possess, sale, exchange, transport or offer for sale/exchange

Responsibilities

1.16 The delivery of the protection and enhancement activities described in this LEMP, during and immediately after the construction period, will be the responsibility of the Developer's (SEGRO) Project Manager with the support of a Principal Contractor (TBC); a suitably experienced landscape consultant (BCA); and a suitably experienced ecologist (FPCR).

1.17 The responsibility for the delivery of operational phase (i.e. post-construction) maintenance and management activities described in this LEMP will be with SEGRO/Principal Contractor, through a management/stewardship body (TBC) or a suitably experienced Landscape Contractor as instructed by the management/stewardship body.

2.0 ECOLOGICAL AND LANDSCAPE FEATURES

2.1 The baseline condition of the retained features of ecological interest is described in detail within **ES Chapter 9: Ecology and Biodiversity** and set out in the associated Figures and Appendices. Features of landscape interest are defined within the **ES Chapter 10: Landscape and Visual** and associated Figures and Appendices.

2.2 A strong landscape framework will be established as part of the Proposed Development, comprising the conservation of key hedgerows and trees, reinforcement of boundary habitats, and the creation of a significant expanse of green infrastructure within the west of the **EMG2 Main Site**. The formation of new bunding within the **EMG2 Main Site** will include new native planting and will be important in mitigating and screening views of the Proposed Development from beyond the boundary.

2.3 The Order limits encompass a number of non-statutory ecological designations and a range of terrestrial habitat and landscape features that will be retained (**Figure 1**) through the construction and operation of the development including:

- Woodland and Scrub –areas of woodland scrub within the **Highways Works**.
- Hedgerows – Boundary and key internal hedgerows and associated trees, including six veteran trees, the Donington Park Services Ash Trees (92034) candidate LWS, and the Lockington (EMG) Oak 143 candidate LWS (90888).
- Grassland – associated with the **Highways Works**.
- Wetland habitats – includes SUDs features and pond P3 which was classified as potential-historic LWS (11975).

2.4 The following avoidance measures will be incorporated into this management plan to avoid or minimise impacts to fauna:

- Creation of a range of habitats with tailored planting schemes to support local species foraging, commuting and breeding.
- Sensitive design and maintenance of green infrastructure to buffer specific ecological features.
- Maintenance of sensitive lighting strategy during operational phase;
- Incorporation of a range of species-specific mitigation features (ie bat and bird boxes, otter holt, insect banks, bat hop-overs)
- Re-use of material from veteran trees impacted by the scheme, to create alternative standing dead wood resources;
- Enhancing boundary features within the **EMG2 Main Site** will ensure that habitat connectivity to the surrounding area is maintained for fauna, including badgers, bats and otters.
- Sensitive timing of works in relation to faunal cycles (ie avoidance of vegetation clearance during nesting bird season).

3.0 FUTURE MANAGEMENT AND MONITORING

General Considerations

3.1 The success of on-site mitigation and compensation for both landscape effects and ecological effects will be dependent not just on aftercare and management, but also on ensuring the value of retained and created habitats is not compromised by negative influences arising due to proximity to the operational development.

3.2 The requirement for non-obtrusive lighting and minimal overspill into peripheral habitats and areas adjoining the operational site is also set out in Chapters 9 and 11 of the ES and similarly reflected in the lighting designs. Again, for the purpose of this document it is assumed that a lighting scheme in general accordance with the Preliminary Lighting Strategy is in place as is required by the DCO and that maintenance of embedded mitigation will fall within standard operational management of the site.

3.3 The following management plan should be considered as a draft/iterative document due to the necessity, particularly in the early years of implementation, to review and modify in order to take account of the development of created/retained habitats, whose response to management may not be fully understood or predicted.

3.4 The following section provides the management objectives and prescriptions of the proposed and retained habitats. Habitat creation will prioritise native species appropriate to the Melbourne Parklands and Trent Valley Washlands National Character Areas.

3.5 The objectives set out here will focus on the effective management of all retained semi-natural and newly created habitats. The LEMP will also ensure that the Proposed Development contributes aspirations and targets of the Leicester, Leicestershire and Rutland Biodiversity Action Plan (BAP), in particular open land with low intensity management.

Access

3.6 The development proposals seek to increase public access to the peripheral Green Infrastructure through the provision of new pedestrian rotes and bridleways through the main site.

Strategic Management Objectives

3.7 The main objectives for the site are based on the requirement to maintain and enhance the nature conservation value of the retained habitats and assimilate them and the development into the landscape, mitigating for any effects on the landscape and the loss of ecological features, whilst contributing to objectives of the Local BAP.

3.8 New and retained habitat corridors and sympathetic management will aim to encourage the natural dispersal of wildlife throughout the site and surrounding habitats and contribute to the maintenance of ecologically-valuable habitat in the long-term. Management efforts will in particular focus on the establishment of complementary native habitats to create a species-rich mosaic of habitats to enhance floral biodiversity and support a wide range of local fauna throughout the site.

3.9 The Management Plan promotes the following aims and objectives for the site's management:

Objective 1 – Ensuring early establishment and links to other local green infrastructure (GI) networks.

3.10 This will involve linking the habitat creation areas and those of existing retained habitats (to be managed) within a network with links to GI in the locality. Primarily this will be achieved through the creation of the country park in the west of the **EMG2 Main Site**, and supplementing existing habitats following Hyam's Lane and Long Holden.

Objective 2 – Provide net gain for biodiversity across the proposed development.

3.11 This will be achieved through provision of new varied habitat areas and maximising the structural and species diversity of new and existing (retained) habitats by applying appropriate traditional and generally low intensity management techniques.

Objective 3 – Providing features of benefit to specific species or groups

3.12 Landscape and habitat creation seeks to provide a habitat for a range of wildlife displaced from the built development area. This include but is not limited to:

- Ensure a range of habitats are available for a range of breeding and overwintering birds;
- Provide alternative foraging and roosting habitat for bat populations;
- Provide enhanced foraging habitat for other mammal species in the locality including badger, hedgehog and otter;
- Ensure that a range of habitats is provided for invertebrates, with particular measures to support saproxylic species assemblages associated with dead wood.

Objective 4 – Ensuring effectiveness of mitigation and enhancement

3.13 The management approach will remain flexible, rather than purely prescriptive in order to build in resilience and adapt to potential impacts from climate change or other irregular events.

3.14 Management prescriptions will be set out using SMART (Specific, Measurable, Attainable, Relevant & Timely) targets enabling straight forward monitoring of management performance.

3.15 Where necessary adjustments will be made to management prescriptions to ensure targets are met.

4.0 MANAGEMENT PRESCRIPTIONS

Management Structure

4.1 Aftercare and establishment works are to be carried out by an approved landscape contractor in accordance with good horticultural practice or the current British Standard with reference to the BS 4428: Code of practice for general landscape operations; BS 7370: Grounds maintenance and BS 8545: Trees: from nursery to independence in the landscape – recommendations.

4.2 Three broad aftercare and establishment periods for new planting are identified below, these are not mutually exclusive, and a programme of monitoring will be necessary to ensure the landscape objectives are met.

- Short term (years 1-5). The initial establishment period following creation may require more frequent maintenance operations. Replacement planting and remedial works would be carried out during this period.
- Medium term (years 5-10). As the planting establishes, maintenance could be expected to reduce, although this is dependent on the success of establishment which can be affected by a number of unpredictable factors. During this period additional species may naturally colonise, and additional habitats and botanical communities can develop unexpectedly that may deserve consideration.
- Long term (>10 + years). As the planting matures, continual monitoring will inform a rolling maintenance programme, to ensure that effective maintenance is carried out at the appropriate time.

4.3 During the Short Term (initial establishment) period, inspections shall take place annually in October/November to assess the establishment of habitats and the effectiveness of the Landscape and Ecological Management Plan and aftercare prescriptions, paying particular attention to:

a) The success of establishment including disease, damage or death of planting;

b) Inappropriate use or vandalism;

c) General appearance and condition;

d) The presence of invasive or non-native species that may require treatment;

e) Any evidence of protected species that could have implications for future management

4.4 If required following these annual visits, the LEMP can be revised and forthcoming maintenance operations adjusted accordingly.

4.5 Reviews will continue to take place beyond the initial 5-year period subject to an assessment of the prevailing conditions on site as part of the 5-year LEMP review. These shall also identify any necessary remedial works on planting affecting publicly accessible areas. Safety issues reported by the public shall also be investigated as soon as practically possible and remedial works undertaken as necessary.

Retained Habitats

4.6 **Table 2** below provides a summary of habitats to be retained.

Table 2: Habitats to be retained

Feature	Condition	Notes
Bioswales and Sustainable drainage systems	Moderate / Good	Features located within **Highways Works** areas.
Grassland – Modified	Poor - Good	Road verges associated with **Highways Works**, and Hyams Lane and Long Holden in the **EMG2 Main Site**.
Grassland – Neutral	Poor / Moderate	Road verged associated with **Highways Works**.
Hedgerows	Poor - Good	Generally located on the peripheries of the Scheme, with the exception of those associated with the country park area and those bounding Hyam's Lane.
Introduced Shrub	N/A	Features located within **Highways Works** areas.
Ponds	Good	Pond P3 within **EMG2 Main Site**.
Scrub – Bramble	N/A	Features located within **Highways Works** area.
Scrub – Mixed	Poor / Moderate	Features located within **Highways Works** area.
Tall forbs	Moderate	Features located within **Highways Works** area.
Trees - Urban / Rural	Moderate / Good	A range of individual trees, tree groups, and trees associated with hedgerows are to be retained throughout the Scheme.
Trees – Veterans	Moderate	Six ash *Fraxinus excelsior* trees qualify as veteran trees either under the NPPF definition (T4) or through the BNG definition (T7, T51, T55, T81, T85).
Watercourse - ditches	Poor	Sections of ditch are located within the **EMG2 Main Site**.
Watercourse - stream	Fairly Poor	A tributary of Diseworth brook including a culverted section runs within 10m of the site. The associated riparian zone extends into the western extent of the country park in the **EMG2 Main Site**.
Woodland	Poor / Moderate	Features located within **Highways Works** areas.

4.7 Retained habitats will be protected from development impacts as detailed with the Construction Environmental Management Plan (FPCR 2025).

4.8 Much of the retained habitats as detailed above fall within the control of National Highways and management prescriptions for these areas are not within the scope of this document. The below therefor refers only to areas where long-term control will be secured by the applicant. The management of these retained areas will be adopted into the scheme wide management prescriptions. No specific management is envisaged for small areas of sparsely vegetated tall forbs / ephemeral vegetation which may over time naturally succeed.

Created Habitats

4.9 In line with Objective 1 early establishment would occur on a phased basis, with habitats created in the first available season following earthworks and land forming within that phase. As enabling

and earthworks will continue over a protracted period, year one of habitat creation will vary throughout the site, and do not equate to year 1 of site works (i.e. year one of habitat creation may occur in year five of site works for some areas).

4.10 **Table 3** below provides a summary of habitats to be created.

Table 3: Habitats to be created

Feature	Condition	Notes
Bioswales and Sustainable drainage systems	Moderate / Good	Features located within **EMG2 Main Site**.
Grassland – Modified	Poor	Features located within **EMG2 Main Site**.
Grassland – Neutral	Poor - Good	Features located within **EMG2 Main Site**. Good condition area within the country park.
Grassland – Orchard	Moderate	Feature located within **EMG2 Main Site**.
Hedgerows	Moderate	Features located within **EMG2 Main Site**.
Ponds	Moderate	Feature located within **EMG2 Main Site**.
Scrub – Mixed	Good	Feature located within **EMG2 Main Site**.
Trees - Urban / Rural	Moderate	Planted across the **EMG2 Main Site**.
Watercourse - ditches	Poor	Feature located within **EMG2 Main Site**
Woodland	Moderate	Feature located within **EMG2 Main Site**.

4.11 During any necessary preparation/construction works careful consideration must be given to avoid compaction of earth (on land to be subject to habitat creation) as heavily compacted soil will lead to poor establishment and slow growth. Any unnecessary tracking over the habitat management/creation zones should be avoided and where necessary such trackways should be marked out in advance, and where feasible appropriate ground protection used.

4.12 **Appendix A** provides example planting mixes that should be broadly comparable of those to be adopted within the Scheme.

Habitats Management

Bioswale / SUDS

4.13 The primary function of the surface water drainage system will be to control flows and reduce the potential for pollution of the aquatic environment. However, it is important that SUDS are considered holistically and that each element is recognised as part of a network of habitats and wildlife corridors. Designs are restricted in relation to standing water provision to conform with East Midlands Airport safeguarding to minimize risks of bird strike.

4.14 Prior to discharging into any watercourse, surface water will discharge to a mixture of swales and attenuation basins situated on the peripheries of built development parcels. Drainage lagoons

are usually installed at an early stage of construction works. This will, for the later phases of development, have allowed their natural colonisation by plants and animals and therefore offer water quality improvements for the discharge during remaining construction works.

Establishment Methods

- Smoothly finished surfaces and uniform topography would be avoided; although they give the impression of tidiness they provide less micro habitat diversity for plants and animals;
- Basins to be seeded with a wet grassland mix (eg Emorsgate EM8 or equivalent) following suppliers guidance;
- Establishment and colonisation will be monitored with supplementary seeding where necessary in the first 5 years;
- Opportunities to provide hibernacula/refugia for amphibians should be considered.

On-going Management

4.15 Areas of rough grassland will be retained around the banks of drainage features. Grass will be cut in September in order to minimise the disturbance to wildlife. Areas would be cut every three years to prevent the encroachment of scrub. Areas selected for cutting each year will be no more than 50% of the bankside, rotated around ponds lakes to ensure the retention of some cover throughout the year. Cuttings will be retained, to prevent scrub and encourage a build-up of litter.

4.16 Management of new and retained drainage features should aim to enhance the value for nature conservation complementing their function for flood risk management and include the following:

- Cutting back and removing short sections of vegetation, amounting to no greater than 1/3rd every 2-3 years in rotation;
- Vegetation removed between September and November when disruption to wildlife is least likely;
- All arisings will be left on the bank of the pond for a 2 day ‘creep back’ period, allowing any invertebrates or insects time to return to the water prior to the removal of arisings to a designated composting area or off-site; and
- Tall emergent vegetation should not dominate to the point where it shades out other less dominant plants, as this will reduce the species diversity.
- The appointed contractor will be responsible for the detection of and control/removal of invasive species, e.g. New Zealand Pygmyweed Crassula helmsii, Parrot’s Feather Myriophyllum aquaticum and Indian Balsam Impatiens glandulifera etc. Current Environment Agency and Natural England guidance will be consulted to obtain details of the most up-to-date methods of treatment of an invasive species.
- The appointed contractor will be responsible for the detection of great-crested newt (Triturus cristatus) prior to works commencing as this species has been recorded in and around the **Scheme**. Should at any time great-crested newt become be suspected or found within new attenuation basis, no management or maintenance works should be undertaken until further advice is provided by a suitably experienced ecologist.
- Clear shingle perimeters and drainage layers.

- Check inlets/outlets/sediment traps and remove any blockages.
- Remove litter and other inorganic debris as required

Grassland Habitat

4.17 A mixture of grassland habitat types and conditions are envisaged across the site. Each broad grassland type will require differing habitat creation and management prescriptions.

Modified Grassland

4.18 Modified (low distinctiveness) grassland will be located in urban areas such which will be subject to high levels of human disturbance and more regular management. Management will primarily be for amenity value, however this will still include of the following criteria:

- Some scattered scrub may be present, but scrub accounts for less than 20% of total grassland area,
- Cover of bracken less than 20%,
- There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species make up less than 5% of ground cover,
- Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.
- Leave some targeted areas of interest / periphery areas un-mown during the summer months (May-Early August).

4.19 Management of this amenity grassland type through regular cutting would seek to ensure a minimum sward height of between 40-50mm during the growing season to ensure resilience to drought and avoid the need for chemical fertilizers and herbicides.

Other Neutral Grassland

4.20 Other neutral grassland will be located throughout the wider GI. The majority of areas adjacent to other semi-natural habitat such as woodland and scrub will be targeted to reach moderate condition, whilst more substantial open areas within the country park will target good condition.

4.21 To achieve moderate condition the following criteria will be targeted by management:

- The appearance and composition of the vegetation closely matches characteristics of the specific UKHab grassland habitat. Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward. (Typical grasses include Common Bent *Agrostis capillaris*, False Oat-grass *Arrhenatherum elatius*, Yorkshire-fog *Holcus lanatus*, Perennial Rye-grass *Lolium perenne*, Common Bent *Agrostis capillaris*, Crested Dog's-tail *Cynosurus cristatus*, Rough Meadow-grass *Poa trivialis* and Cock's-foot *Dactylis glomerata*. Herbs may include Yarrow *Achillea millefolium*, Ribwort Plantain *Plantago lanceolata*, Red Clover *Trifolium pratense*, Meadow Buttercup *Ranunculus acris*, Hogweed *Heracleum sphondylium* and Daisy *Bellis perennis*. There may be additional relevant species dependent on the precise grassland community.

- Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm), although this would be dependent on when monitoring occurs. This can include informal mown pathways and clearings created to provide species specific benefits.
- Cover of bare ground between 1% and 5%. This include rabbit warrens, bare ground such as banks created to provide suitable habitat for insects.
- Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%,
- There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.

4.22 To achieve good condition management will target all of the above criteria and also the following additional criteria:

- Sward diversity should support at least 10 species per m^2 (excluding those indicative of sub-optimal condition ie, creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris*. There may be additional relevant species local to the region and or site.

4.23 In order to achieve targeted outcomes and provide sufficient species diversity and a greater diversity of flowing herbs initial soil testing will be undertaken to identify soil nutrient status, which will help inform the future management / monitoring strategy. Where soil phosphate levels are high and monitoring indicates that excessive growth of more vigorous / coarse species is preventing the establishment of other species a more intensive cutting regime will be implemented in the early years of establishment to reduce soil nutrient status, followed by the localised use of yellow rattle to aid in reducing the vigour of more competitive grasses.

4.24 New grassland areas will be cultivated by either the removal of vegetation/ploughing and harrowing then seeded with an appropriate wildflower seed mix (reflecting soil conditions) or locally sourced green hay if available.

4.25 Where soil tests are found to be particularly high in phosphate levels, the first year/s may require more intensive management with monitoring of the grassland more regular to fine tune management.

4.26 If green hay is to be used it should be cut just before the hay stage and collected and spread immediately, prior to wilting (ideally within an hour or two). Taking hay at this time means it contains a higher numbers of seeds from a range of species, instead of being grass dominant.

4.27 The recipient site should be prepared to receive the green hay by mowed and scarified to provide some bare ground to allow seeds to germinate without being outcompeted by existing vegetation. Hay should be spread thinly and evenly (40 small bales per hectare), with the sward visible beneath the hay. Once spread, the hay should be left for at least one week in dry weather, or three weeks in wet weather, to allow the seed to fall. After this period, low intensity grazing would be beneficial to trample the seeds into the soil.

4.28 A sensitive and appropriate long-term management strategy is essential for the success of sward establishment. In the initial year this is likely to include more regular cutting between July and

November, to keep the sward short and aid germination. Cutting should again be implemented in the first spring to avoid seedlings being shaded out by developing vegetation. Perennial weeds should be controlled early on by spot treatment of herbicide where necessary.

4.29 Cutting and removal of arisings will be necessary to reduce nutrient input to the site and to reduce the build-up of thatch which suppresses the germination of desirable herbaceous species.

4.30 In subsequent years, the treated grassland compartments should be managed as traditional hay meadows to maintain species diversity. Management can be expected to include cutting in late July and subsequent swath turning to assist with seed-shedding and subsequent removal of arisings. Perennial weeds should be continued to be treated with herbicide. No inorganic fertilisers are used. Herbicide use will be limited to spot treatment.

4.31 Spring and summer cuts should be staggered so that not all vegetation is cut at the same time – for example, by assigning a number of cutting blocks and cutting only one at a time, with several weeks between to allow re-growth. Varying the timing of the cut can have a significant effect on species composition. As a general rule earlier cutting removes more rank vegetation at the most productive time of the year. Later cutting enhances diversity in nutrient poor areas.

4.32 Some areas of grassland (at least 10%) should be left un-cut each year to add structural diversity and to provide hibernation sites for invertebrates. The uncut section should be rotated every year, meaning that no areas are left uncut for more than a year. This will prevent scrub invasion.

4.33 Bare ground is an important component of good condition grassland habitats. It provides suitable areas for the colonisation of stress tolerant but uncompetitive species and an important resource for invertebrates and reptiles, especially when located close to areas of cover. Grassland management should include the cyclical creation of new areas of bare ground as existing areas become colonised by vegetation.

4.34 Access should be encouraged and unsurfaced paths across the grasslands created to add further structural diversity. Trampling along paths and creation of disturbed patches, e.g. near benches, creates areas of short and open-structured vegetation and patches of bare ground that support a different invertebrate fauna.

4.35 The creation of banks of free-draining sandy soil will further enhance structural complexity and encourage nesting aculeate colonies. These do not necessarily need to be tall, banks of 1-2m can still provide important habitat. These should preferably be south facing and moderately steep so as to maintain open conditions. Creation of banks of a range of substrates, from clay to sand and a range of slopes will provide greatest habitat diversity.

4.36 In the first years of establishment, created grassland would be monitored to determine the need for and extent of any management required to reduce the cover of invasive ruderal species. Following establishment of the grassland it would be necessary to cut the area at least once a year with the removal of all arisings.

4.37 Provision for the potential for grazing of some areas could be made in the form of suitable fencing and through the provision of water, where necessary, allowing some degree of flexibility in future long-term management and to maximise the benefits of grassland management for biodiversity.

<u>Establishment</u>

- No artificial fertilizers/herbicides will be applied to the ground and ideally low nutrient subsoils should be used;
- Sow grassland during April/May when daytime temperatures are in the range 10-25°C and nights are frost-free; at a rate of 40 kg per hectare;
- Year one: cut up to four times once sward established (down to 30-50mm) to control pernicious weeds and remove cut material immediately;
- From year two onward c.1/3 of the open grassland areas will be subject to reduced management. These areas will be cut on rotation once every three years to create a dense tussock structure that will benefit wildlife.

On-going management

- From year two annual cutting will be instigated following flowering in late July/August;
- Cuttings will be left in-situ for 24-48 hours to allow for seed drop and then removed from site or composted in a single designated location (the same areas to be used each year);
- Regular monitoring both in the establishment period and annually thereafter is important to enable early intervention for weed control and determine annual cutting after flowering/seeding of herbs; and
- Spot treatment with a contact herbicide such as Glyphosate may be necessary following the establishment period to treat pernicious weeds such as broadleaved dock *Rumex obtusifolius* and common nettle *Urtica dioica* if patches persist.

Orchard

4.38 A distinct area of orchard planting is included within the green infrastructure. The underlying grassland will be managed as per the framework provided for other neutral grassland above. Orchard tree planting will also have regard for the following.

Establishment

- Planting will take place between October and March, avoiding periods of inundation or prolonged frost. This will accord with BS 8545:2014. Trees should be spaced at least 7m apart (10m spacing is optimal). A low stake, no more than 30 cm high, stimulates the entire stem to thicken.
- Trees are to be mulched using wood chippings or bark to establish a 1m diameter around the tree stem. This area should be kept clear of all vegetation and maintained for at least the first 3 years after planting. Mulching using previously composted straw, wood chippings, manure or similar is the preferable method. The mulch should be maintained at 5 cm deep, and avoid direct contact with the trunk.
- Newly planted trees require regular thorough watering to ensure the water reaches the roots. Watering should be undertaken as necessary in response to local conditions, with particular focus on dry periods during the first few summers.
- Formative pruning will be undertaken whilst the trees establish (initial 5-10 years as required) in accordance with advice provided in the Natural England Technical Information Note

TIN016[1] to begin developing open frameworks of strong lateral branches. Following the formative stage the main focus of pruning will change to one of general maintenance and encouraging fruit production, in accordance with Technical Information Note TIN017[2].

On-going management

- Grassland habitats below orchard trees would be managed as neutral grassland as above, keeping any scrub below 5% of ground cover and species indicative of suboptimal condition make up less than 10% of ground cover
- Once the trees are well established the sward can be allowed to grow up to the trunk, although tall weeds, bramble and ivy should be removed from around the trees.
- Maintenance works, including use of strimmers, should take care to avoid damaging trees. Ensure at least 95% of the trees are free from damage caused by humans or animals. Consider introducing protective measures or limiting access if this becomes an issue.

Hedgerows

4.39 The interface between the development edges and the wider Green Infrastructure has an important role in defining the character of the development, delivering ecological benefits as well as contributing to a safe and attractive public space. Native hedgerows will be planted to provide an interface between and into built development parcels with appropriate gaps to allow pedestrian access through to the wider green infrastructure. Timber post and rail/estate fencing would be placed on the development side of the hedge.

4.40 The hedgerows will be cut back once per annum for the first 5 years between December and January. Once the hedgerows have developed a bushy habit, they will be maintained on rotation with no more than 50% of any hedgerow being cut in any one year.

4.41 Hedgerows will be maintained at a height between 2-4m, as and when required hedgerows will be laid or coppiced in order to maintain dense cover at the base providing important habitat for wildlife.

4.42 Reasonably sized gaps should be maintained in any planted hedges so that they do not act as an impermeable barrier to the movement of open habitat species. Excessive gaps can be planted up as necessary.

4.43 Retained and newly created hedgerows will be managed to achieve the following condition criteria:

- Continuous lengths of hedgerow supporting at least five native shrub species per 30m by year five
- Bushy A-section shaped hedges achieving a height and width >1.5m average along length,
- Gap between ground and base of canopy <0.5 m for >90% of length,
- Gaps make up <10% of total length and no canopy gaps >5 m,
- >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length measured from outer edge of hedgerow, and is present on at least one side of the hedge,

[1] Natural England 2010. Technical Information Note TIN016. Traditional orchards: formative pruning of young trees
[2] Natural England 2010. Technical Information Note TIN017. Traditional orchards: maintenance pruning.

- >90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species,
- >90% of the hedgerow or undisturbed ground is free of damage caused by human activities.

4.44 Management of hedgerows associated with standards trees will also target:

- At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.
- Maintaining existing standard trees noticeably extending above the hedge line.

Planting

4.45 New hedgerows will be planted in staggered double rows and establishment will proceed in accordance with methods set out for woodland planting above and the landscape management schedules including:

- Prepare vegetation-free planting strip.
- Plant using staggered double row, 500mm between rows at a rate of 6 plants/m.
- Plant 60-90cm bare root whips.
- Planting mix to reflect species composition of existing hedges
- Regular checks of stock health and protection including weed control in first five years;
- Regularly controlling weed growth by mechanical means and using chemicals only as a last resort; and
- Dead specimens replaced during the winter.

4.46 Planting will be undertaken so that each 30m length supports a minimum of five shrub species.

On-going Management

4.47 Establishment years (until hedges reach a height of 2m):

- Replace plants if less than 75% establishment of original planting
- After year one a single cut to remove terminal growth will be undertaken
- Check mulch mats, replace if damaged missing during first two growing years

4.48 When hedges are 2.5m high – implement biannual management:

- Trim biannually, cutting one half of hedges each year. Shape hedges to form a flat-topped A-section
- Cut during the period October - March (inclusive) to avoid disturbance to breeding birds.
- A 2m strip adjacent the base of each hedgerow will be cut on rotation 50% every two years to promote tussocky structure as cover for fauna.

Ponds

4.49 Some restorative work to existing pond P3 is desirable to reinstate its functionality. Further deepening of the central area would expand the area of permanent water within the wider basin and the thinning/removal of over shading vegetation, although, following this, existing ponds are likely to be relatively self-sustaining, with little management likely to be required in the early years. Longer-term management of these areas will be dynamic to each situation. Regular, gentle thinning-out of excess aquatic vegetation will prevent the build-up of nutrients.

4.50 New ponds will be limited in size and location in accordance with bird strike safeguarding policy for East Midlands Airport. Pond creation will be designed and located to provide habitat for amphibians. New ponds will be surrounded by good quality terrestrial habitat including species-rich grassland, woodland and scrub. The waterbodies will be shaped to provide a range of bank angles and heights. Gradients will vary from 15º - 25º from horizontal and will be enhanced by the excavation of small embayments. This will create differing conditions of light and temperature and will thus encourage diversification in the flora and associated fauna. Variations in water depth will be created to enhance nature conservation value and to maximise the development of biodiversity. The shallowest areas will grade into an expanse of seasonally wet mud that may attract a variety of invertebrates and plants.

4.51 New hibernation and refuge features, including brash / log piles and artificial hibernacula, will be created in association with new and existing ponds.

4.52 Retained and created ponds will be managed to meet the following management criteria:

- the pond is not artificially stocked with fish,
- the pond water levels should be able to fluctuate naturally throughout the year,
- the pond is not artificially connected to other waterbodies, either via streams, ditches or artificial pipework,
- there is an absence of non-native plant and animal species,
- less than 10% of the pond is covered with duckweed or filamentous algae.
- the surface of ponds is no more than 50% shaded by woody bankside species.

<u>Establishment</u>

4.53 Waterbodies will be buffered from proposed development by a minimum of 10m by another semi-natural habitat (grassland/scrub/woodland etc)

4.54 Pond design should ensue that ponds include areas with minimal vegetation and cover and provide variable depths;.

4.55 Management will:

- Remove any invasive plant species identified in-line with the most up to date guidance;
- Remove fish from ponds;
- During the establishment period, new ponds will be checked, to determine the need for replacement planting.
- Additional habitat to be established includes new marginal/emergent vegetation around the ponds and drainage basins.

- Planting of various mixes as plug plants within appropriate zones in the dormant season (November – February) during frost free periods;
- Planting will be done in single species groups of approximately five to eight plants (30cm apart) clustered together in mixed species groups to achieve approximately 50%-60% coverage. The gaps will be filled through natural colonisation over time; and
- Plant health and survival will be monitored with regular checks for first five years.

On-going Management

4.56 The commencement of annual cutting will depend on depth of leaf litter and cover of scrub or undesirable ruderals such as broadleaved dock and common nettle and cutting of some areas may be required by year three.

- Annual cutting of wet areas will be undertaken in the autumn/late winter period while the water level is high to ensure cut stems are not flooded;
- Cutting of bank areas can be undertaken from late summer onward once seed has shed; and
- Cutting back and removing short sections of vegetation, amounting to no greater than 1/3rd every 2-3 years in rotation to retain approximately 70% open water;
- All arisings will be left on the bank of the pond for a 2 day 'creep back' period, allowing any invertebrates or insects time to return to the water prior to the removal of arisings to a designated composting area or off-site; and
- Where ponds become enclosed by tree/shrub cover this will be removed from approximately 25% of the pond bank to allow greater light levels into the pond and provide access for management.

4.57 Areas of rough grassland will be retained around the banks of water bodies. Grass will be cut in September in order to minimise the disturbance to nesting wildfowl and other wildlife. Areas would be cut every three years to prevent the encroachment of scrub. Areas selected for cutting each year will be no more than 50% of the bankside, rotated around ponds lakes to ensure the retention of some cover throughout the year. Cuttings will be retained, to prevent scrub and encourage a build-up of litter.

4.58 Specific long-term management of pond features should include the following to minimise impacts to nature conservation:

- Removal of vegetation in permanently wetted regions suitable amphibian habitat will only be carried out in September/October each year as appropriate/required. This timing avoids the amphibian breeding season (typically March – June), and also the amphibian hibernation period (typically November-February). Works should also be conducted outside the nesting bird season (March – August).
- All removed material will be left in small piles around the feature margins for two to three days prior to removal from site; this will provide opportunity for aquatic invertebrates and any over-wintering larvae to return to suitable habitats.
- Remove litter and other inorganic debris as required.

Scrub

4.59 Scrub will be located throughout the GI. Retained areas are generally restricted in extent and are not being targeted for uplift in quality. New scrub creation provides larger areas in association with grassland and woodland habitats and will target good condition.

4.60 To achieve good condition the following criteria will be targeted by management:

- there is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs,
- there is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species make up less than 5% of ground cover,
- habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper or box, which can be up to 100% cover).
- there are clearings, glades or rides present within the scrub, providing sheltered edges,
- the scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).

4.61 Scrub is of greatest value to wildlife where it forms a scattered patch work/network, which provides ample edge habitat. Planting of scrub with gentle transitions to surrounding grassland provides a more natural vegetation structure and tends to give better results for invertebrates. Therefore, scrub planting should be maintained to ensure that grades into more open habitats.

Establishment

4.62 Native species planting will provide a food source, shelter and nesting opportunities for invertebrates and birds.

- Provide a diverse range of native woody species, with no one species dominant (75% cover).

Ongoing Management

- Management should seek to maintain a variable age structure, through rotational cutting and thinning.
- Management operations to create open spaces such as clearings, rides and glades on rotation. These provide a wide range of conditions and niches suitable to maintain the lifecycles of the species present, providing a diverse interface between habitats.
- Targeted treatment of any invasive species or pernicious weeds, to be undertaken mechanically or using spot treatment.
- Allow the development of an edge habitat with a gentle transition between grassland and scrubland, through reduced management of grassland in proximity to the scrub. Create a graded grassland/scrub interface. This can include cutting bramble and shrub vegetation at varying angles to the vertical to also increase the overall surface area.

Trees

4.63 It is recognised that trees are important for several reasons and therefore management objectives should avoid any unnecessary arboricultural management and tree works and maintain a careful balance between keeping the public safe, retaining amenity and minimal loss of any biodiversity value.

4.64 The retained mature trees are features of high biodiversity value in the context of the site and the immediate surrounds. Areas of rot, decay, cavities and deadwood provide habitat niches that are important for a range of species including those species which are legally protected such as nesting birds and roosting bats. Older trees will naturally develop deadwood and cavities which increase their biodiversity value over time. Assessment of tree health, disease and features of biodiversity value will form part of management plans with the trees located in spaces that will be accessible for inspections and any tree surgery if required.

4.65 Existing trees may require management in the future. Any works that would be required will be subject to the required pre-works ecology surveys. Where existing mature trees are retained within Green Infrastructure, these trees will only be subject to arboricultural management where it is either imperative for public safety or there are clear benefits for wider biodiversity. Footpaths within green space with public access will be designed to be set at appropriate distances so that they can be maintained with retention of deadwood, cavities and decay as these features will be important for the whole tree ecosystem.

4.66 In addition to existing trees, new trees will be incorporated into proposals. These will provide additional structural diversity to open areas and provide steeping stone habitats throughout the development.

4.67 The management principles will be set out as follows:

<u>Retained Individual Trees</u>

- Any immediately necessary remedial work to existing trees on site will be undertaken prior to occupation. A review as to whether there are any specific requirements for management of existing trees on the site will be undertaken.
- Within publicly accessible areas, and especially within proximity of defined footpath routes within green space, trees would be checked annually, after major storms and at any other interval deemed necessary following inspection for essential remedial works with works undertaken as advised by a suitably qualified Arboriculturist.
- All works will be undertaken according to best practice as set out in BS 3998 Tree Work – Recommendations and using qualified tree surgeons/or arborists to satisfy a duty of care.
- All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the main bird-breeding season (March - August inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds by a suitably qualified Ecologist.
- Arisings from tree works will, where practical, be used to create small dead wood piles within the woodland planting. Alternatively, where this is not possible, they can be chipped to provide mulch for use in amenity planting areas or removed from site.

- Standing dead wood will be retained in situ where possible to provide habitat. Where it is not safe to retain this, the dead wood piles and recumbent logs will be created and placed at marginal areas, providing habitat for a range of fauna including saproxylic invertebrates and fungi, plants, small mammals, common reptiles and amphibians.
- Veteranisation methods could accelerate the provision of decaying wood habitat features on existing trees within the country park area through actions such as breaking branches, damaging trunks or using jagged or coronet cuts of limbs to encourage wood decay. Opportunities may be limited however, as the number of large mature trees is not great, and many of these already have wood decay features. Further detailed assessment of trees would be required to identify any that might usefully be veteranised without compromising existing interest or features.

Veteran Trees

4.68 A separate Veteran Tree strategy (**Appendix B**) details the requirements for the removal of veteran trees and the integration of dead wood arisings into the Scheme. This includes provision of areas within the green infrastructure to create deadwood features. These features will be regularly monitored to inform and adapt management prescriptions for maintaining their structural integrity and ecological value.

4.69 Retained veteran trees will be broadly managed in line with the management principles for individual trees above. However greater emphasis and weighting will be put on the retention of ecological features when considering management options. The goal will be to maximise the future survival of the tree. The two main objectives for any interventions are:

- One-off operations with a view to making them safe, or preventing imminent collapse (remedial work);
- Semi-regular operations with a view to establishing regular pollarding/coppicing routine.

4.70 Surrounding vegetation should be carefully managed to avoid excessive shading whilst still providing protection from extreme desiccation. Canopies of surrounding trees should not be allowed to overlap with the veteran. New planting should aim to provide cover to the south face of veterans to help with resilience to spells of dry, hot weather.

4.71 For both deadwood features and retained veteran trees

- A low post-and-wire fence, timber bollards, or other suitable barrier will be installed to prevent unauthorised human access or interference.
- Interpretive signage will be installed at selected points to explain the ecological value of the features, including their importance for saprophytic fungi, invertebrates, and biodiversity net gain.

4.72 In the event grazing is to be used on grassland surrounding veteran trees, suitable stock proof fencing must be installed to protect the trees from incidental damage.

New Tree planting

4.73 Planting of Oak or Ash at low density along hedgerows to create future hedgerow standards and in the centre of fields with the aim of creating high-quality open-grown parkland trees would be beneficial in the long term by providing continuity of arboreal and dead wood habitats.

4.74 Detailed descriptions of management operations including watering, topping up mulch levels, fertilising, pruning, stake and guard maintenance are set out below:

- For at least the first year, trees will be watered at least weekly during periods of low or no rainfall. They should be watered to field capacity each time via irrigation tubing. During the first 5 years following planting trees will be watered in periods of extreme drought (2 or more weeks without substantial rainfall). After establishment continue to water only if deemed to be required.
- Top up mulch levels where necessary.
- Fertilise new areas of tree planting using an approved liquid feed (N10:P15:K10) at a rate of 60g/ m² during early May and late September.
- Prune back any diseased or rotten wood (including the removal of main stems and limbs) back to sound wood.
- Examine tree stakes and ties for their effectiveness and requirement. If the tree has yet to establish, replace or adjust ties, spacers and tree tubes as appropriate. Well the tree has established well, then all stakes, ties, spacers, tubes etc will be removed and disposed of at a licensed landfill site and holes, surfaces made good.
- Any trees that fail within the first 5 years will be replaced by the management company at their own cost. (Trees failing within the first year will be replaced by the contractor who has installed them)
- Any tree that dies or is necessarily felled as a result of storm damage, vandalism, mechanical damage, fungal decay or other such cause, but which is not felled or removed as part of any programme of thinning or coppicing, shall be replaced like for like by the management company or by the appointed contractor installing them if within the first year. Such replacement would be with a tree of either the same species or similar species as those existing to allow some flexibility and to avoid problems encountered with 'Same Tree Disease' to ensure a sustainable tree cover in the interests of visual amenity.

Watercourses

Ditches

4.75 New ditches will form part of the surface water drainage system which will control flows and reduce the potential for pollution of the aquatic environment. However, as with drainage basins, ditches are considered holistically and are recognised as part of a network of habitats and wildlife corridors.

4.76 New ditches will be kept relatively open with any scrub cut back to limit overshading. Arisings will either be removed from site, or chipped and utilised as mulch.

4.77 The appointed contractor will be responsible for the detection of and control/removal of invasive species at the watercourses e.g. New Zealand Pygmyweed *Crassula helmsii*, Parrot's Feather *Myriophyllum aquaticum* and Indian Balsam *Impatiens glandulifera* etc, if become present. Current Environment Agency and Natural England guidance will be consulted to obtain details of the most up-to-date methods of treatment of an invasive species.

4.78 Remove litter and other inorganic debris as required.

Stream

4.79 A tributary of Diseworth brook including a culverted section runs within 10m of the site. The associated riparian zone extends into the western extent of the country park.

4.80 Site operations will follow precautionary methods when working in proximity to the watercourse.

- Retain buffer strips along the edge of watercourses to reduce the risk of contaminated run-off;
- Where possible work across slopes, rather than down them to help to minimise the risk of soil erosion;
- Plan ahead and carry out operations leading to bare or disturbed soil in periods of dry weather; and
- Ensure that grass cuttings and other arisings do not enter the water environment.

Woodland

4.81 Newly planted woodland will be provided to buffer screen the development and enhance connectivity by creating stepping-stone woodland blocks and belts. Scrub planting referred to above will be used to create a graded woodland edge habitat adding further value to the woodland belts.

4.82 Woodland management will target the following:

- Planting mixes within newly created areas of woodland will be designed to comprise of at least 5 appropriate native species and clump planted to create diversity in structure; unplanted gaps will be left to infill naturally.
- As woodland establishes there should be a diverse age range and vertical structure of trees with evidence of natural regeneration, a scrub layer and woodland canopy.
- Woodland edges will provided graded habitat either through the interface with scrub habitat or through the creation of coppiced/pollarded woodland margins.
- Regular monitoring will track the presence and extent of non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species, and will trigger remedial action where necessary to remove or reduce their presence
- Tree health to be monitored and management of diseased trees to be carried out inline with current best practice guidelines.
- Standing and fallen deadwood >20cm diameter and >1m tall/long to be retained within woodland where feasible. Standing deadwood can be enhanced through selective ringbarking.
- Careful management of surrounding land to ensure that the woodland is free of significant nutrient enrichment/damage.

4.83 The larger and wider woodland belts to the south and west of the main EMG2 development have the potential to sustain further spatial diversity through the temporally staggered creation of clearing as part of the post-establishment management provisions. This can be combined with thinning operations, and targeted in scale, number and location to areas of most suitability. In combination with the creation of clearings, woodland meadow seed mixes (ie. Emorsgate EW1,

Naturescape N10, or equivalent seed mix) should be sown to bolster botanical interest in these areas

4.84 While some early management may be required to ensure successful establishment, including the measures outlined for trees above, and some thinning in the medium term, it is intended that these areas will be allowed to largely develop naturally, maintaining a good variety of tree and shrub age classes and the humid conditions required by some of the lower plants.

4.85 Due to the potential risk of spreading ash dieback *Chalara fraxinea*, no ash trees will be planted (Statutory Instrument No. 2707 – The Plant Health (Forestry) (Amendment) Order 2012 effectively prohibits the internal movement of plants or seeds of ash). Instead, the planting ratios can include extra open space, to allow for natural colonisation by ash seedlings from nearby woodland where appropriate.

Planting

- Planting in the dormant season (November to February);
- Planting in random single species groups of 5 – 20 plants at centres varying between 1.4 – 2.5m; and
- Planting will be done on a ratio of roughly 40% to 50% canopy trees, 20% to 30% understorey trees and scrub, and c.30% open space.

Establishment (short-term)

- Regular checks will be made during the first five years of establishment to replace dead or diseased specimens, control weeds, re-stake plants as necessary and check deer/rabbit fencing. Thereafter checks will be made once every two years;
- Any re-planting will be undertaken November to February; and
- All weed growth will be controlled using mechanical means, such as strimming. Chemical treatments are to be used only as a last resort and should not be used in areas accessible to the public.

4.86 A minimum period of 5 years will be required for the woodland planting to establish. Any trees that die, are removed, or become damaged or diseased will be replaced in the next planting season with others of similar size and species.

4.87 Once fully established the planted trees will form part of the ongoing woodland management.

On-going Management

- Managing the shrub layer by regular cutting to create woodland thicket and increase flowering/fruiting;
- The use of coppicing and pollarding should seek to promote the diversity of ‘edge’ habitat at some woodland boundaries; cutting up to 20m continuous sections from 0.5m to canopy height on rotation every 3 – 5 years;
- Thinning operations will be minimal including annual winter checks from year six onwards, and retention of ash seedlings within extra spaces as detailed above;

- Target the creation of clearings in combination with thinning operations in larger woodland areas. Clearings can vary in scale and their location should be informed by site conditions. Clearings should be seeded with a suitable woodland meadow mix; and
- Unless diseased, deadwood created through management should be retained either as standing or fallen boughs in situ or made into habitat piles.

Faunal Enhancement

Badger

4.88 New green infrastructure will ensure suitable foraging and commuting habitat is provided across the site, particularly around the site boundaries, allowing for continued permeability around the site and into the wider landscape.

4.89 Two new artificial badger setts will be created to support local badger populations.

4.90 Green space will include planting fruit and nut-bearing species where appropriate.

4.91 Large areas of grassland will also be created. Some areas of this will be managed to ensure the sward is maintained below 50mm height. Grassland with a short sward is known to form a primary foraging habitat for badgers as it supports high worm biomass, easily accessible to badgers. The use of vermicides or fertilisers/ weed killers known to be detrimental to worms will be avoided.

Bats

4.92 A range of bat boxes will be sited in the retained trees with good links to the proposed GI network and away from artificial lighting. Tree mounted boxes should be installed as early in the **EMG2 Main Site** works program as possible, and prior to tree removal works to ensure continuity of resources. In addition to replacement roost mitigation required for the loss of identified roosts a further 50 bat boxes will be installed in accordance with the below method. Examples of suitable boxes include a mix of the following:

- Vincent Pro boxes
- Large colony box such as Schwegler 1FS
- Miramare bat boxes
- 1FD boxes

<u>Method</u>

- Attached to trees using aluminium nails placed 5 m – 6 m above ground level;
- Two to three boxes per tree on south, east and west aspects;
- Maintained free of clutter with clear flight lines;
- Away from artificial light.

4.93 Bat boxes will be checked by a licenced bat worker in years two, four and eight.

Birds

9.1.1. Tree mounted boxes should be installed as early in the **EMG2 Main Site** works program as possible, and prior to tree removal works to ensure continuity of resources. Integral and building mounted boxes can be installed at an appropriate stage within the construction phase. The following provides details of suitable nest box types to be erected at appropriate locations:

- The inclusion of integrated swift boxes on office buildings within the development to encourage these species which are able to take advantage of urban sites to breed. Swift boxes should be installed at least 5m high, with an unobstructed flight path. Swifts are gregarious, so installing several boxes in close proximity is beneficial.
- Where opportunities allow, swallow nest cups should be placed close under eaves, although ideally under cover, such as open bin or bike sheds, with at least a 6cm gap above the nest to provide access;
- A mixture of small hole (26mm and 32mm) boxes (≥10) placed on retained trees will provide nesting opportunities and generally have a high uptake rate;
- Small open fronted nest boxes (≥10) placed throughout the **Scheme** especially on trees which support a climber such as ivy which provides a degree of concealment.
- Large nest boxes (≥10) with large holes (45-50 mm) placed on suitable mature trees to provide a further variety of breeding sites.
- Erect (20 x 20 x 40cm) kestrel nest boxes (≥2) with large holes (15 cm). These need to be placed at least 3 m high on large trees on the woodland edge in areas of low human disturbance. Ideally erected in close proximity.

4.94 To avoid disturbance to nesting birds, site clearance works, including the removal of woody vegetation or habitat suitable for ground-nesting species, will be conducted where possible outside the bird breeding season, which runs March – August inclusive. If clearance is planned for the bird breeding season then it will be preceded by a nesting bird survey conducted by an experienced ecologist. This will involve observing any vegetation to identify any wild birds exhibiting nesting behaviour and/or searching for active nests. Should active bird nests be identified then an exclusion zone would need to be retained until the chicks had fledged, as determined by the supervising ecologist.

4.95 Advice from the Royal Society for Protection of Birds[i] states that skylark benefit from insects and spiders from April until August. Insects are collected from the ground, and from low-growing plants in crop and pasture. The larger open areas of permanent grassland should be left un-cut over the spring and early summer. Creation of tussocky grass near adjoining arable fields will create over-wintering habitat for beneficial insects, which move into the crops in the spring. Allow some strips or blocks of ryegrass to go to seed and leave uncut through the winter in areas away from hedgerows or woodland.

4.96 Advice from the Royal Society for Protection of Birds[ii] states that yellow wagtails benefit from insects and spiders throughout the summer, particularly flying insects in sparse vegetation and open ground. Wet features such as open wet ditches, ponds and scrapes support a number of flying insect groups on which yellow wagtails feed. For the greatest benefit to yellow wagtails, these wet areas should be open and free from shading by hedges and trees. Annually ploughed buffer strips (5m) should buffer adjoining arable farmland to create ruderal habitat.

Herpetofauna

4.97 New hibernation and refuge features, including brash / log piles and artificial hibernacula, will be created in association with new and existing ponds / SuDS features. These features will be sited to maximise the availability of basking and refuge habitat they provide.

4.98 Logs and other suitable material will be retained from clearance works.

Hibernacula

4.99 The central core of the hibernaculum will contain a range of materials, including: root balls, cut timber, brash, inert hardcore, bricks and rocks. These materials will be clean of contaminants and other waste. All hibernacula created will meet a minimum size of at least 4 m long, by 2 m wide by 1 m high, and ideally much larger.

4.100 Turf will be removed from the footprint of the hibernaculum so that it can used to cover the completed construction. A pit will be dug to a depth of approximately 50cm and back-filled with, larger rubble and root balls initially to provide structure, followed by the remaining materials. The top of the structure will them be profiled and the stripped turf replaced.

4.101 There will be access points around the edges, these are best created by ensuring that logs and rubble protrudes from the edges, creating crevices that allow amphibian to get deep inside.

4.102 The images below provide an indicative idea of the construction and finished look of the hibernacula.

Image 1: Example hibernacula

Log Piles

4.103 Several areas of approximately 1x3m should be selected to house log piles. Top soil / turf to 300mm should be removed from the footprint of the log pile so that it can used to cover the completed construction.

4.104 Larger logs and root balls initially to provide structure, followed by the remaining materials. The piles will be created with a diverse structure containing a mixture of sizes, shapes and wood species, with some small-diameter material present. The wood piles should be secured using sturdy wire to discourage their removal by members of the public.

4.105 Following the completion of the timber core, topsoil will be spread across the surface of the pile and the stripped turf replaced. The top of the structure should them be profiled and the stripped turf replaced.

Image 2: Example Log Pile

Invertebrates

4.106 Mitigation will aim to go beyond the standard provision of habitats to further increase the value of the **EMG2 Main Site** for invertebrates.

4.107 The creation of banks of free-draining sandy soil will further enhance structural complexity and encourage nesting aculeate colonies. These do not necessarily need to be tall, banks of 1-2m can still provide important habitat. These should preferably be south facing and moderately steep so as to maintain open conditions. Creation of banks of a range of substrates, from clay to sand and a range of slopes will provide greatest habitat diversity.

4.108 New ponds should be lined with clay to hydrologically separate them from nutrient enriched agricultural soils and allowed to fill with rainwater. New scrapes should be created to provide areas of temporary inundation habitat.

4.109 Creation of 5m wide ruderal belts will provide habitat for associated invertebrate species. These would be best sited near boundaries with arable land.

4.110 The green infrastructure design will avoid excessive planting of woody vegetation. Care should be taken not to compromise open habitats or excessively shade existing trees or hedges. Open habitats supported the majority of the invertebrate species recorded, including many with a formal conservation status, whilst 45 many of the species associated with existing woody vegetation prefer or require the tree or shrubs to be in open sunny conditions. Planting should use locally appropriate native species such as those listed below:

- Hawthorn (*Crataegus monogyna*);
- Blackthorn (*Prunus spinosa*);
- Field Maple (*Acer campestre*)
- Elm (*Ulmus spp.*);

- Grey Willow (*Salix cinerea*);
- Elder (*Sambucus nigra*); and
- Wayfaring Tree (*Viburnum lantana*).

4.111 Planting of scrub with gentle transitions to surrounding grassland provides a more natural vegetation structure and tends to give better results for invertebrates. These will support species associated with woody vegetation, and if placed close to one another to give a stepping-stone effect still allow movement of these species through the environment without impeding the movement of open habitat species.

4.112 Reasonably sized gaps should be maintained in any planted hedges so that they do not act as an impermeable barrier to the movement of open habitat species.

4.113 The removal and translocation of arisings from over-mature and veteran trees will be conducted in line with separate veteran tree strategy (**Appendix B**).

4.114 Veteranisation methods could accelerate the provision of decaying wood habitat features on existing trees through actions such as breaking branches, damaging trunks or using jagged or coronet cuts of limbs to encourage wood decay.

4.115 Planting of Oak or Ash at low density along hedgerows to create future hedgerow standards and in the centre of fields with the aim of creating high-quality open-grown parkland trees would be beneficial in the long term by providing continuity of arboreal and dead wood habitats.

Otter

4.116 A log pile otter holt should be created in association with the Diseworth brook tributary. Holts can readily be built from the timber on site.

4.117 Each holt should be built to incorporate a bedding chamber measuring 600 x 600 x 450mm, with an internal entrance measuring 200-250mm, and at least one external chamber/corridor with two exits to the outside (min 250mm width). A depression is to be dug before construction into which the holt is constructed.

Image 3: Example Log Pile

Public Access Management

4.118 New diverted PROW footpath routes will be constructed be linked to the existing network, extending beyond the Main Site, creating sustainable access routes to and from the surrounding areas and around the mains site itself. These routes will be a mix of more formal gravel or mulch accessible cycle and pathways, hardwearing short mown grass and informal mown pathways through the grassland areas dependent on the nature of the surrounding habitats and route.

4.119 In addition to additional planting, access routes would be used to encourage/direct access away from more sensitive areas such as artificial badger setts or herpetofauna refuges.

4.120 Information boards will be placed at appropriate locations close to landscape/ecological features. These will detail the importance and value of the habitats and help inform users on how to reduce their impact on the surrounding wildlife, encouraging a sense of ownership and understanding.

4.121 Site wide furniture will support navigation, relaxation and hygiene appropriate to the site's context. Waste bins will be provided throughout the site and waste will be collected and removed regularly.

5.0 MONITORING AND REVIEW MECHANISM

5.1 The monitoring of landscape and ecological features is of fundamental importance and necessary to determine whether the objectives are being met and to take account of the development or colonisation of desirable or undesirable species.

Annual walkover (short-term)

5.2 The site would be visited annually by a suitably qualified ecologist. The objective of the annual walkover will be to assess the condition of retained and created habitats against target objectives and where relevant the requirements of protected species licences and mitigation strategies.

5.3 Following the walkover inspection, an annual monitoring report will be produced detailing any remedial actions or interventions determined to be necessary in order to meet the relevant species or habitat objectives.

Five-year survey and Review

5.4 More specific monitoring will also include botanical surveys of open grassland habitats and wetland features in year 5 following implementation. The following surveys, at minimum, will be included in the five-year reviews:

- Botanical surveys - The species diversity of open grassland will be assessed with species and assessment of their cover recorded along with tussock cover (estimate of cover assessed within 1m radius of 20 random sample points) and sward height, using a sward stick.
- Protected species surveys: badger, bats, and great crested newts;

5.5 The results of the surveys will be reviewed in order to identify any revisions to the management prescriptions deemed to be required in order to meet the objectives for the medium and long-term. Revised prescriptions would then be produced to guide the next five years. This information would be presented as a 'Five Year Monitoring Report' to be shared with relevant stakeholders.

Management Success Criteria

5.6 The success of habitat management will primarily be assessed against the BNG habitat condition scores targeted within the proposed scheme.

5.7 Faunal success will be assessed based on data collected during the five-year review periods. While annual variation is feasible in response to local conditions and climatic events, long-term population data from each five-year monitoring period will ascertain trends in population dynamics.

6.0 WORKS SCHEDULE

6.1 The Works Schedule (Table 4) provides a timetable for the tasks/methods detailed above. Monitoring of habitat conditions against the set targets will be undertaken every two years by a suitably experienced botanist to ensure these targets are met. After five years the schedule will be reviewed and any refinements incorporated into a revised schedule for the following five years. The party responsible for implementing this management plan is to be agreed in consultation with the local authority.

6.2 As stated above, in line with Objective 1 early establishment would occur on a phased basis, with habitats created in the first available season following earthworks and land forming within that phase. As enabling and earthworks will continue over a protracted period, year one of habitat creation will vary throughout the site, and do not equate to year 1 of site works (ie year one of habitat creation may occur in year five of site works for some areas).

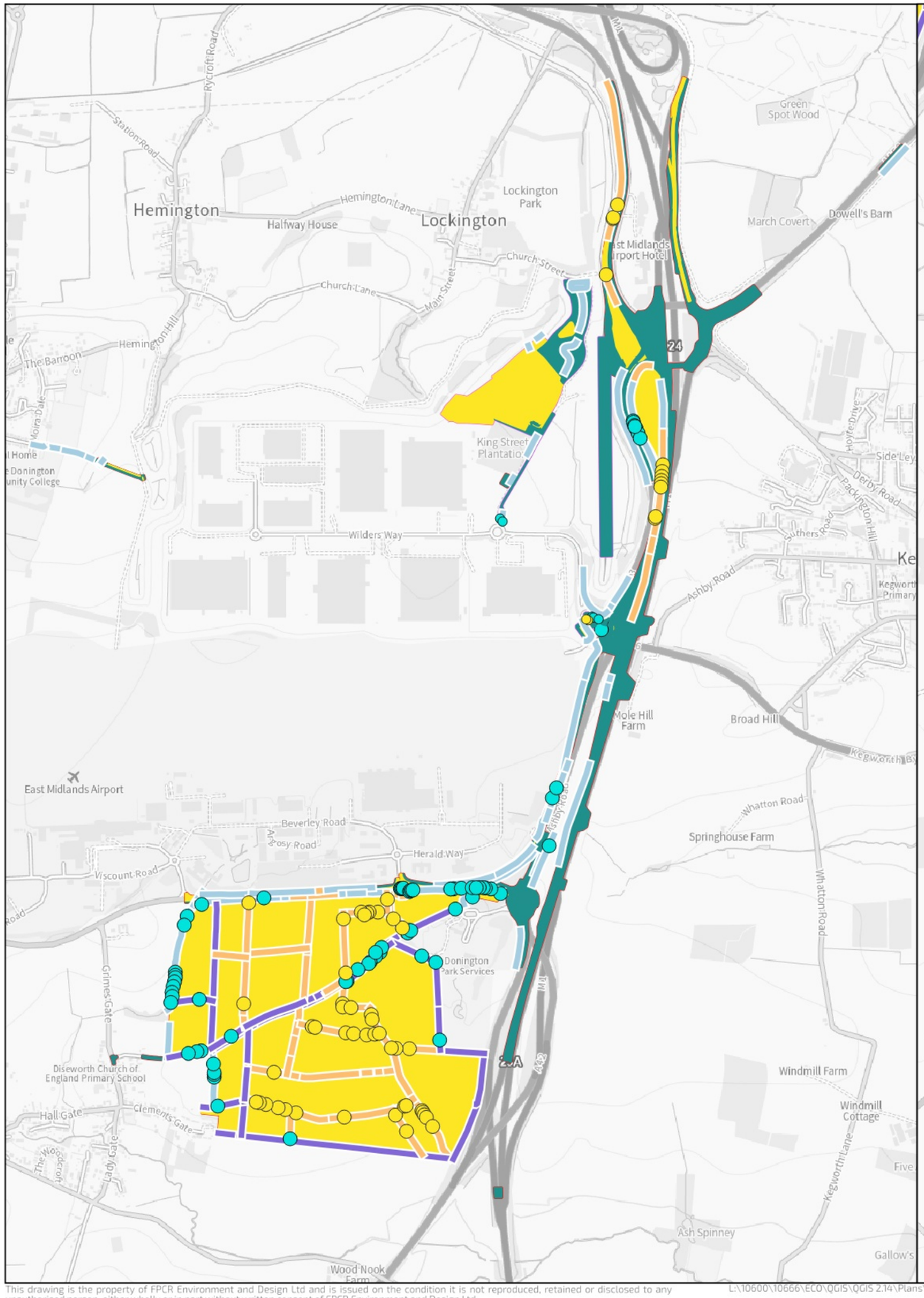
Table 4: Works Schedule

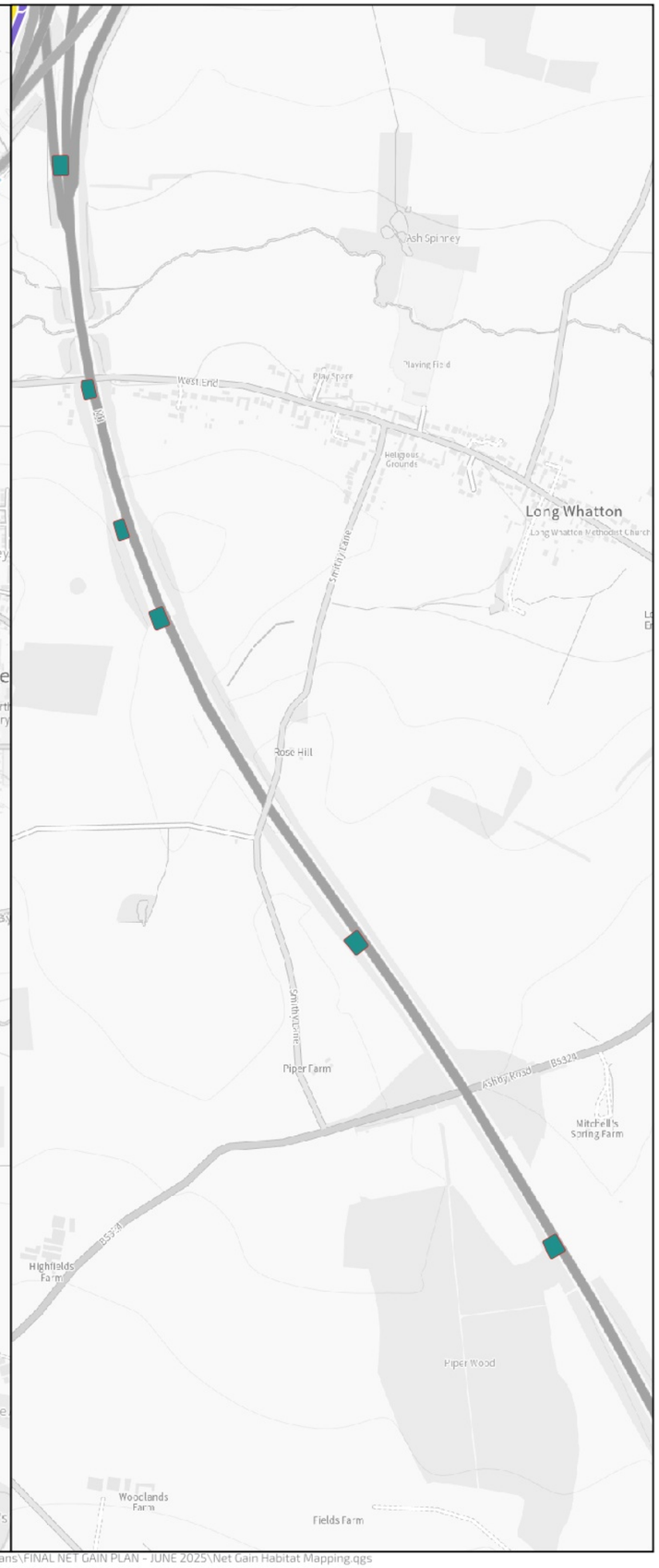
Habitat / Feature	Regular operations/works	Anticipated/potential month of occurrence of annual works												Frequency and notes
		J	F	M	A	M	J	J	A	S	O	N	D	
Habitat Management Prescriptions														
Woodland / Scrub / Tree Groups / Individual Trees	Planting													From year one following the completion of enabling/earthworks
	Establishment													First five years
	Management													From year one onward (existing retained); Year six onward (new planting)
Orchard	Planting													From year one following the completion of enabling/earthworks
	Establishment													Up to 10 years as required
	Management													From year one following the completion of enabling/earthworks
Hedgerows	Planting													From year one following the completion of enabling/earthworks
	Establishment													Checks / replacement annually for five years

Habitat / Feature	Regular operations/works	Anticipated/potential month of occurrence of annual works												Frequency and notes
		J	F	M	A	M	J	J	A	S	O	N	D	
Habitat Management Prescriptions														
	Management													From year one onward (existing retained); Year one cut terminal growth (new hedgerows); Year four onward cut annual 1/3 on 3 year rotation (new hedgerows)
	Hedge bottom													Cut on rotation ½ every two years
Grassland	Creation													From year one following the completion of enabling/earthworks
	Management – year one													Cut to control pernicious weeds. Remove cuttings immediately
	Management – year two													Remove cuttings after 24-48 hours. Spot treatment with herbicide as necessary to control pernicious weeds. 2/3 of grassland to be managed sensitively avoiding wholescale cutting May-August. Mown footpaths / grassland boundaries and any areas of targeted management can be cut more regularly as required. 1/3 of total new grassland cut to be cut on reduced rotation - every three years (tussock areas)
Wetland features -	Creation													From year one following the completion of

Habitat / Feature	Regular operations/works	Anticipated/potential month of occurrence of annual works												Frequency and notes
		J	F	M	A	M	J	J	A	S	O	N	D	
Habitat Management Prescriptions														
Ponds / Scrapes / Attenuation basins / Swales / Ditches														enabling/earthworks
	Marginal/aquatic/marsh/swale vegetation management													Year two onward (new features); Year one onward (retained pond). Rotational cutting
Bat Boxes	Installation													From year one following the completion of enabling/earthworks
	Checking													Year two, four & eight by licenced bat worker
Bird Boxes	Installation													From year one following the completion of enabling/earthworks
	Checking													Year four, eight & 12 – outside the bird breeding season. Licenced person to check barn owl boxes
Ruderal Buffer Strips	Creation													Annual autumn ploughing of 5m strip adjacent to arable field boundaries.
Insect Banks	Creation													From year one. Creation of south facing banks of 1-2m from a mix of substrates, from clay to sand with a range of slopes.

Habitat / Feature	Regular operations/works	Anticipated/potential month of occurrence of annual works												Frequency and notes
		J	F	M	A	M	J	J	A	S	O	N	D	
Habitat Management Prescriptions														
														Manage as per grassland above.
Recreation	Installing interpretation boards													From year one following the completion of enabling/earthworks
	Maintenance													Year two, four & eight





N

0 600 1,200 m

Red Line Boundary

Order Limits EMG1 MCO

Order Limits EMG2 DCO

Habitat Retention

Retained

Lost

Hedgerow Retention

Enhanced

Retained

Lost

Watercourse Retention

Retained

Lost

Individual tree Retention

Retained

Proposed Lost

date 30/06/25

drwn/chkd RJC / SJA

client
SEGRO (Properties) Ltd and SEGRO (EMG) Ltd

project
East Midlands Gateway Phase 1 & 2 (EMG1 & EMG2)

title
RETAINED HABITAT PLAN

scale 1:18,500 @ A3

number
FIGURE 1

rev -

FPCR | environment & design

L:\10600\10666\ECO\QGIS\QGIS 2.14\Plans\FINAL NET GAIN PLAN - JUNE 2025\Net Gain Habitat Mapping.qgs

t: 01509 672772 e: mail@fpcr.co.uk w: www.fpcr.co.uk

Appendix A: Example Planting Mixes

Woodland Planting Mix

Trees (canopy)	Scrub / Understorey
Quercus robur – Pedunculate Oak	*Cornus sanguinea* – Dogwood
Betula pendula – Silver Birch	*Rhamnus catharticus* – Buckthorn
Acer campestre – Field Maple	*Rosa canina* – Dog-rose
Prunus avium – Wild Cherry	*Corylus avellana* – Hazel
	Cornus sanguinea – Dogwood
	Salix caprea – Goat Willow
	Prunus spinosa – Blackthorn
	Crataegus monogyna - Hawthorn

Hedgerow Planting Mix

Species to comprise 70-75% of planting mix	Species to comprise remaining 25-30% of planting mix
Crataegus monogyna – Hawthorn	*Acer campestre* – Field Maple
Prunus spinosa – Buckthorn	*Cornus sanguinea* – Dogwood
	Rhamnus catharticus – Buckthorn
	Quercus robur – Pedunculate Oak
	Rosa canina – Dog-rose
	Corylus avellana – Hazel

Standard General Purpose Meadow Mixture (Emorsgate EM2 or similar)

%	Herbs (20% of total mix)	
0.5	Yarrow	*Achillea millefolium*
0.6	Betony	*Betonica officinalis - (Stachys officinalis)*
2.5	Common Knapweed	*Centaurea nigra*
0.8	Greater Knapweed	*Centaurea scabiosa*
1	Wild Carrot	*Daucus carota*
0.6	Meadowsweet	*Filipendula ulmaria*
0.6	Hedge Bedstraw	*Galium album - (Galium mollugo)*
2	Lady's Bedstraw	*Galium verum*
0.4	Field Scabious	*Knautia arvensis*
0.3	Rough Hawkbit	*Leontodon hispidus*
0.6	Oxeye Daisy	*Leucanthemum vulgare*
0.5	Birds-foot Trefoil	*Lotus corniculatus*
0.1	Wild Marjoram	*Origanum vulgare*
0.5	Hoary Plantain	*Plantago media*
1	Salad Burnet	*Poterium sanguisorba - (Sanguisorba minor)*

%	Herbs (20% of total mix)	
0.4	Cowslip	*Primula veris*
2	Selfheal	*Prunella vulgaris*
2.5	Meadow Buttercup	*Ranunculus acris*
1	Yellow Rattle	*Rhinanthus minor*
0.6	Common Sorrel	*Rumex acetosa*
1.2	Red Campion	*Silene dioica*
0.2	Ragged Robin	*Silene flos-cuculi* - (*Lychnis flos-cuculi*)
0.1	Wild Red Clover	*Trifolium pratense*
%	**Grasses (80% of total mix)**	
8	Common Bent	*Agrostis capillaris*
40	Crested Dog's-tail	*Cynosurus cristatus*
28	Slender-creeping Red-fescue	*Festuca rubra*
4	Smaller Cat's-tail	*Phleum bertolonii*

Pond Planting Mix

Aquatic / Submerged	
Callitriche stagnalis	Common Water-starwort
Nymphaea alba	White Water-lily
Marginal / Waters edge	
Caltha palustris	Marsh-marigold
Glyceria maxima	Reed Sweet-grass
Phalaris arundinacea	Reed Canary-grass
Lythrum salicaria	Purple Loosestrife
Phragmites australis	Common Reed
Sparganium erectum	Branched Bur-reed
Sagittaria sagittifolia	Arrowhead
Lycopus europaeus	Gypsywort
Veronica beccabunga	Brooklime
Iris pseudocorus	Yellow iris
Juncus inflexus	Hard-rush
Juncus effusus	Soft-rush

i Royal Society for the Protection of Birds (2017) Land management for wildlife – skylark (*Alauda arvensis*)

ii Royal Society for the Protection of Birds (2017) Land management for wildlife - yellow wagtail (*Motacilla flava*)

SEGRO PLC

EMG2

Appendix B: Veteran Tree Strategy

May 2025

FPCR Environment and Design Ltd
Registered Office: Lockington Hall, Lockington, Derby DE74 2RH
Company No. 07128076. [T] 01509 672772 [F] 01509 674565 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

Rev	Issue Status	Prepared / Date	Approved/Date
-	Draft	JDH / 28.05.25	SJA / …..

CONTENTS

FIGURES

TABLES

1.0 INTRODUCTION

1.1 The following report has been prepared by FPCR Environment & Design Ltd. on behalf of SEGRO PLC. It provides a proposed mitigation/compensation strategy to minimise impacts on veteran trees as defined under the National Planning Policy Framework (NPPF, 2024) and/or are considered to be irreplaceable habitats under the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024. These include mature trees showing signs of structural decay, hollowing, and deadwood features.

1.2 This report should be read in conjunction with the Arboricultural Assessment (FPCR 2025), the Construction Environmental Management Plan (CEMP) (FPCR 2025), and the Landscape Ecological Management Plan (LEMP) (FPCR 2025).

Site 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 Midland Airport and Gateway Industrial Cluster' (EMAGIC) site, which forms part of the East Midlands Freeport designated by the Government in 2022;
- **Highway works-** Highway 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 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.

Development proposals

1.5 In brief, the proposals for the Scheme are as follows:

- **EMG2 Main Site -** a maximum of 300,000sq.m (approximately 3.23 million sq.ft) (GIA) of warehousing and manufacturing floorspace (GIA), with additional 100,000sq.m in the form of internal mezzanine space;
- **Highway Works**- new highway infrastructure and works to the existing highways network- including a new off-slip lane from the M1 northbound at J24 to provide a direct link to the A50 westbound, widening of the A50 eastbound link at Junction 24 and other related works and traffic management measures; and
- **EMG1 works-** a maximum of 25,000sq (approximately 269,000 sq. ft) (GIA) of additional warehousing on land known as Plot 16 , with an additional 5,000 sq. m in the form of internal mezzanine space. In addition, it is proposed to undertake freight handling and efficiency improvements at the existing rail freight terminal by way of increases to the maximum

permitted height of gantry cranes by 4m to 24m overall; together with works to expand the management suite building and public transport interchange enhancements.

2.0 TREE ASSESSMENT METHODOLOGY

2.1 Various published methodologies are currently available for the identification of Ancient and Veteran trees which, due to the complexity and subjectivity of the process of defining and assessing these trees, often have conflicting definitions.

British Standard BS:5837

2.2 This Arboricultural Assessment (FPCR 2025) used the criterion for defining a veteran tree based upon the definition within BS:5837.

"Tree that, by recognized criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned".'

NOTE These characteristics might typically include a large girth, signs of crown retrenchment / reorganisation and hollowing of the stem.

2.3 Stem girth is the most reliable guide when determining the age of trees and in normal growing conditions, ancient and veteran trees are those which have a large girth by comparison with other trees of the same species. To inform the assessment of chronological age reference has been made to the chart provided within Lonsdale (2013) (shown below in Figure 1).

2.4 BS:5837 does not provide a definition for ancient trees and therefore the assessment and the criterion being used for identifying ancient trees is based upon government guidance on, Ancient woodland, ancient trees and veteran trees: advice for making planning decisions[1] which states.

"All ancient trees are veteran trees, but not all veteran trees are ancient. The age at which a tree becomes ancient, or veteran will vary by species because each species ages at a different rate."

National Planning Policy Framework (NPPF, 2024)

2.5 Ancient and veteran trees are also material considerations within the planning process and their importance is specifically recognised within the NPPF 2024, which includes its own definition of ancient and veteran trees. The Arboricultural Assessment (FPCR 2025) has also considered any potential candidates against the below definition:

'A tree which, because of its age, size, and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.'[2]

2.6 To be considered a veteran tree in accordance with the definition within NPPF, veteran trees must be 'trees which, because of their age, size, and condition are of exceptional biodiversity, cultural or heritage value'. Therefore, to be considered a veteran tree, the tree must be of sufficient age and size with a stem girth which is considered large for its species.

2.7 However, stem girth alone does not constitute a veteran tree, and veteran trees should display characteristics of ancient trees, showing strong signs of at least two primary characteristic and

1 Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)
2 Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

usually display a number of secondary characteristics, although individual trees will be assessed on their own merits.

2.8 Primary characteristics include.

- Major stem cavities with decay and/or hollowing
- Signs of crown reorganisation

2.9 Secondary characteristics include.

- Large quantity of dead wood in crown, 150mm diameter +
- Major storm damage, e.g. breakout wounds, broken spars 30cm.
- Habitat spaces: decay holes and/ or crevices/ branch splits sheltered from direct rainfall
- Aerial rooting
- Sap run / slime flux
- Water pool
- Bark loss (exceeding 400cm2 inc. due to lightning strike
- Fungi (especially notable or protected species
- Other epiphytic plants, including ferns & significant presence of lichens or mosses

2.10 It is considered that the greater the number and extent of these features present within a given tree, the greater its ecological habitat value.

The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024

2.11 Veteran trees are defined for biodiversity net gain (BNG) purposes in The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024. This definition states:

"Veteran trees are mature trees that share physical and other characteristics in common with ancient trees, due to their life or environment, but are neither developmentally nor chronologically ancient. All ancient trees are veteran trees, but not all veteran trees are ancient. Veteran and ancient trees which have died are still recognised as such because they retain significant biodiversity value for many decades.

Veteran trees exhibit one or more of the following—

(i) significant decay features such as deadwood, hollowing or signs of advanced decay in the trunk or major limbs

(ii) a large girth, depending on and relative to species, site and management history

(iii) a high value for nature, especially in hosting rare or specialist fungi, lichens and deadwood invertebrate"

2.12 This definition sets a lower threshold to qualify as veteran relative to the other definitions detailed above.

Other considerations

2.13 RAVEN 2 (Recognition of Ancient, Veteran & Notable trees) Julian Forbes-Laird (2023)[3] has been adopted for gathering survey information as this provides a standardised framework for recording characteristic ancient/veteran features and the Arboricultural Assessment (FPCR 2025) has also considered any potential candidates against this framework.

2.14 When assessing veteran trees, reference has also been made to number of publications which include Owen & Alderman (2008) and Reed, H. (2000). Veteran Trees: A Guide to Good Management. English Nature and more recently Lonsdale, D (ed.) (2013) Ancient and other Veteran Trees: Further Guidance on Management, The Tree Council & Ancient Tree Forum for guidance on the recognition of both ancient and veteran trees.

[3] Recognition of Ancient, Veteran & Notable Trees – RAVEN 2 (2023) – Julian Forbes-Laird Consultancy.

3.0 SITE ASSESSMENT RESULTS

3.1 A tree survey and assessment was carried out by FPCR Environment and Design in accordance with guidance contained within British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' (hereafter referred to as BS5837). Surveys have been conducted over a period of time with an initial survey in July 2020 and then updated in August 2021 and more recently in February 2025.

3.2 This report separates the trees into two categories, those that meet the NPPF definition for veteran trees, and those that meet the lower threshold set by The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024. These trees are detailed in **Table 1** below, with locations illustrated in **Figure 1**.

Table 1: Veteran Tree Assessment

Tree Number	Species	Summary Notes	Designation	Tree Retention
T4	Ash Fraxinus excelsior	Branch socket cavities observed Dieback of the crown observed Epicormic growth evident within the crown Heartwood exposed Minor dead wood evident in the crown (<75mm) Large wound on western side of stem where a limb has failed in the past	NPPF 2024Veteran Tree / The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 / Candidate Local Wildlife Site	Retained
T7	Ash Fraxinus excelsior	Dieback and epicormic growth of the crown observed Heartwood exposed Major and minor dead wood evident in the crown (>/< 75mm) Storm damage present Loss of apical leader which has resulted in a significant wound Large sections of deadwood in Upper crown	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Retained
T13	Ash Fraxinus excelsior	Upper section of crown is dead with only a small amount of epricormic growth showing signs of life	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Lost
T14	Ash Fraxinus excelsior	Dead standing specimen with Limited live growth	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Lost
T32	Ash Fraxinus excelsior	Branch socket cavities observed Etiolated form Sparse / thinning crown	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Lost

Tree Number	Species	Summary Notes	Designation	Tree Retention
T34	Ash Fraxinus excelsior	Branch socket cavities observed Hollowing noticed at crown break with Eastern scaffold branch showing signs of further hollowing and splitting Extent of hollowing undetermined due to aerial location however from ground level it appears be extensive	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Lost
T35	Ash Fraxinus excelsior	Branch socket cavities Broken branches and deadwood noted throughout the crown Large cavity on southern side of stem at 2.5m	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Lost
T43	Ash Fraxinus excelsior	Branch socket cavities observed Epicormic growth evident within the crown *Inonotus hispidus* Shaggy bracket present	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Lost
T51	Ash Fraxinus excelsior	Stem failure at 7m with crown now made up of established epicormic growth Large hollowing at crown break which extends downwards Sections of missing bark and exposed heartwood Significant dieback resulting in a very sparse crown	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Retained
T55	Ash Fraxinus excelsior	Dieback and epicormic growth of the crown observed Heartwood exposed	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Retained
T59	Ash Fraxinus excelsior	Basal cavity observed Dieback and epicormic growth of the crown observed Heartwood exposed Minor dead wood evident in the crown (<75mm) Sparse / thinning crown	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Lost
T65	Ash Fraxinus excelsior	Basal cavity observed Dieback and epicormic growth of the crown observed Flail damage evident Heartwood exposed Minor dead wood evident in the crown (<75mm) Specimen in extensive decline	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Lost
T66	Ash Fraxinus excelsior	Basal cavity observed Dieback and epicormic growth of the crown observed Flail damage evident Heartwood exposed Major and minor dead wood evident in the crown (>/< 75mm) Specimen in extensive decline *Inonotus hispidus* Shaggy bracket present	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Lost

Tree Number	Species	Summary Notes	Designation	Tree Retention
T81	Ash Fraxinus excelsior	Basal cavity observed Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm)	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Retained
T85	Ash Fraxinus excelsior	Basal cavity observed Sparse / thinning / Dieback and epicormic growth evident of the crown observed Heartwood exposed Major and minor dead wood evident in the crown (>/< 75mm)	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024	Retained
T120	English oak Quercus Robur	Characteristic for species Major and minor dead wood evident in the crown (>/< 75mm)	The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 / Candidate Local Wildlife Site	Retained

3.3 Under the proposals (Illustrative Master Plan, Drawing number: 10666-FPCR-XX-XX-DR-A-0001, Rev PO5, FPCR, 2025) nine trees (T13, T14, T32, T34, T35, T43, T59, T65 and T66) which qualify as Irreplaceable Habitats under Regulations 2024, will be lost. These trees are pictured below in **Images 1 - 9**. Bespoke compensation for the loss of these irreplaceable habitats is required and detailed below.

Image 1: Tree T13

Image 2: Tree T14

Image 3: Tree T32

Image 4: Tree T34

Image 5: Tree T35

Image 6: Tree T43

Image 7: Tree T59

Image 8: Tree T65

Image 9: Tree T66

4.0 PROPOSED MITIGATION

4.1 Mitigation for the loss of trees, including the 9 veterans identified above, will take a holistic approach to the wider woodland resource. In brief this aims to

- Avoid tree loss where feasible through site design
- Minimise impacts of tree loss on associated faunal assemblages by re-using the dead wood arisings within site designs.
- Enhance retained trees through improved management and buffering.
- Create new habitats and improve connectivity through woodland, scrub and orchard planting.

4.2 Site designs have retained 7 veteran trees, including those which qualify as veterans under the higher stringency NPFF definition, and those which were identified as cLWS.

Habitat Loss

4.3 Where the loss of veteran trees is unavoidable, a bespoke compensation strategy will be implemented to conserve ecological function and support habitat continuity.

4.4 Veteran trees removal will be subject to the below prescriptions.

4.5 In addition, larger arisings (>10cm diameter) generated from the wider removal of trees on the EMG2 main site (**Figure 2**), will be used to supplement the available dead wood resource available for habitat creation.

4.6 After initial felling operations, arisings will be stockpiled in one of the 2 locations shown on **Figure 2**. Veteran material will be kept separate from general arisings. The stockpiles areas should be demarcated with heras fencing to prevent incidental works access, and to reduce the likelihood of the material from being opportunistically sequestered by firewood foragers.

Deadwood Monolith Creation

- Large-diameter sections of felled trees will be repurposed into standing and lying monoliths, preserving decay features like heart rot and bark sloughing.
- Monoliths will be installed in clusters within two designated areas of the Site's green infrastructure.
- Further scattered individual dead wood features will be created scattered throughout areas of new woodland creation.
- Monoliths will be positioned in a range of light and moisture conditions to replicate the environmental heterogeneity found in natural settings.
- They will ideally be in proximity to retained over-mature trees will allow for natural species dispersal.
- Additional modifications to dead wood using a range of cuts and drill holes will enhance opportunities for the development of decay features and opportunities for faunal species.

4.7 **Images (10-13)** below show this method being implemented on active development sites.

Image 10: Example monolith cluster

Image 11: Example modifications to deadwood

Image 12: Example monolith installation

Image 13: Example monolith establishment

Working methods

4.8 A suitable and experience physical works contractor will need to be appointed to deliver the requirements of this mitigation strategy. The process requires access to large and specialist machinery, and skilled operators to deliver the work in an effective and safe manner. It was the responsibility of the contractor to provide any RAMS required to secure the delivery of this work.

Step 1: Selection and Preparation of Monolith Material

- Trees identified for monolith translocation will be assessed by an ecologist and arboriculturist to identify key ecological features (e.g. heart rot, cavities, large dead limbs).
- Using a tree shear attached to an excavator, side branches will be selectively removed to create manageable monolith stems.
- Where necessary, a chainsaw operator and climbing arborist will assist with branch removal to retain ecologically important features such as cavities or fungal bodies.

Image 14: Tree prior to felling

Image 15: Tree sectionally felled

Step 2: Felling of the Main Stem

- The main stem will be felled using a controlled mechanical grappling technique, using a 360° excavator fitted with a timber grab.
- The base of the stem should be gently lowered to the ground to avoid shattering or compromising existing decay features.

Step 3: Excavation of Monolith Pits

- An auger hole will be created at each monolith installation point to a depth of approximately one-quarter to one-third the total stem height to ensure adequate support.
- The diameter of the hole should allow room for backfilling material to secure the monolith upright.
- Hole depth and width will be adjusted to suit timber size and soil conditions.

Image 16: Auger pit creation

Image 17: Example tree pit

Step 4: Installation of Monoliths

- The excavator and grab will lower the monoliths gently into the prepared pits, with stems oriented to replicate their original position (e.g. south-facing exposure, canopy cover).
- A smaller machine will then backfill around the base using site-won or imported subsoil.
- A vibrating plate or hand-held soil compactor will be used to consolidate the material and ensure the monolith is firmly supported and upright.

Image 18: Installing monolith

Image 19: Completed monoliths

Step 5: Repeat for All Usable Timber Sections

- The above process will be repeated for all usable sections of felled trees, including trunks and substantial limbs.
- Timber should be installed with variation in height, angle, and exposure to create a varied deadwood resource.

Step 6: Translocation of Tree Stumps

- The original stumps of felled veteran trees will be excavated using a large excavator.
- These will be relocated and installed adjacent to the monoliths, partially buried in natural orientation to provide continuity of below-ground fungal and microbial associations.

Image 20: Tree stump relocation

Image 21: Vertical log piles

Step 7: Construction of Vertical Log Piles

- A shallow trench (c. 0.5 m deep) will be excavated.
- Smaller branchwood will be stacked vertically in rows and clusters within the trench to form vertical log piles.
- The trench will be backfilled with loose soil, leaving the upper sections of timber exposed.
- Piles should be placed in semi-shaded areas, ideally near hedgerows or mature retained trees.

Image 22: Vertical log piles

Image 23: Soil translocation

Step 8: Associated soil translocation

- The topsoil immediately surrounding the original veteran tree (typically top 10–30 cm) will be carefully stripped and collected.
- At each monolith installation site, the existing topsoil will be removed and stockpiled separately to receive the translocated material.
- The collected soil will then be spread around the base of the monoliths and relocated stumps to transfer microbial, fungal, and invertebrate communities associated with the original tree.
- Care will be taken to minimise compaction and retain soil structure during excavation, transport, and placement.

Step 9: Protection and Interpretation

- A low post-and-wire fence, timber bollards, or other suitable barrier will be installed to prevent unauthorised human access or interference.
- Interpretive signage will be installed at selected points to explain the ecological value of the features and the reasoning behind their installation, including their importance for saprophytic fungi, invertebrates, and biodiversity net gain.

Habitat Creation

4.9 Site designs have buffered retained veteran trees with new semi-natural habitats and the cessations of adjoining agricultural activities.

4.10 New woodland planting (c.10ha), scrub planting (c.8.5ha) and orchard planting (c.0.5ha) will significantly increase the overall tree resources on the EMG2 main site. Planting designs will create corridors along the western and southern extent of the EMG2 main site, as well as providing buffering to existing hedgerows and trees along Hyam's lane. Planting within the EMG1 site will buffer King's Street Plantation and enhance connectivity westwards to link in with recently planted woodland belts which in turn link into areas of existing established woodland. These areas will be managed in line with prescriptions set out in the LEMP (FPCR 2025).

Veteran Tree Management

4.11 Retained trees will be registered on the Woodland Trust's ancient tree inventory (https://ati.woodlandtrust.org.uk/), which provides a publicly accessible record of ancient, veteran and notable trees.

4.12 It is recommended that interpretation boards are incorporated in proximity to veteran trees to inform the public of their value along with the importance of managing veteran trees. Veteran trees provide ideal educational opportunities for people to learn about their local environment and traditions. A series of information boards could form part of a Veteran tree walk/nature walk.

4.13 Retained veteran trees within the EMG2 Main site (**Figure 1)** will be managed sensitively in order to bolster their longevity. The key component of their survival depends on long-term management of both the tree and its surrounding environment. The survival of a veteran tree is often threatened by the increasing change in our use of the landscape as well as by climate change and the introduction of new pests and pathogens.

4.14 Management objectives have considered a wide range of specific needs; examples include the safeguarding of a tree's structural integrity and the safety of people and property, whilst ensuring the retention of decaying wood and decay cavities that play host to fungi, invertebrates as well as potential roost sites for some bird species. Further thought has been given to the environment surrounding the trees, an example being recommendations for introducing essential nectar and pollen sources, such as the planting or retention of hawthorn (thorny bushes) and brambles.

General Principles

4.15 Significant weighting will be put on the retention of ecological features when considering management options. The two main objectives for any interventions are:

- One-off operations with a view to making them safe, or preventing imminent collapse (remedial work);
- Semi-regular operations with a view to establishing regular pollarding/coppicing routine.

4.16 Soil improvement works should aim to reduce compaction of previously cultivated soil to a radius of 5m. A layer of composted bark mulch to a depth of 10-20cm should then be applied to the area around the tree on all sides to act as a weed suppressant and retain valuable moisture to the roots. The mulch layer should not be laid in direct contact with the base of the stem as the above harmful effects may cause bark death and leave the tree susceptible to colonisation by pathogenic organisms. As this layer decomposes, the mulch will be replenished within a radius of 5m around the trees.

4.17 Surrounding vegetation should be carefully managed to avoid excessive shading whilst still providing protection from extreme desiccation. Canopies of surrounding trees should not be allowed to overlap with the veteran. New planting should aim to provide cover to the south face of veterans to help with resilience to spells of dry, hot weather.

4.18 Competitive vegetation such as grass will be managed regularly as to significantly reduce competition for nutrients. This management is considered necessary and the aim of which should serve to improve the conditions for the veteran tree in terms of nutrient uptake and so improve the vitality of a veteran tree as well as provide adequate soil volumes within the perceived rooting area.

4.19 In the event grazing is to be used on grassland surrounding veteran trees, suitable stock proof fencing must be installed to protect the trees from incidental damage.

4.20 Where height or weight reduction is needed wounds arising from these works need to be kept to the minimum diameter necessary to achieve the objective. It is important to phase the reduction of the crown in order to mimic the natural aging process of the tree. Heavy or unsympathetic pruning may result in the rapid decline or death of the tree due to extensive reduction of vital stored energy reserves.

4.21 All of the above operations will be supervised by the appointed consulting Arboriculturist who will direct and guide the various works.

4.22 A low post-and-wire fence, timber bollards, or other suitable barrier will be installed to prevent unauthorised human access or interference.

4.23 Interpretive signage will be installed at selected points to explain the ecological value of the features, including their importance for saprophytic fungi, invertebrates, and biodiversity net gain.

Monitoring and review

4.24 The monitoring of veteran trees is of fundamental importance and necessary to determine specific management objectives.

4.25 The site will be visited every two years by a suitably qualified Arboriculturist

4.26 Veteran tree risk will be quantified by using the VALID Tree Risk-Benefit Management Strategy, or other equivalent methodology in line with the current industry standards.

4.27 This VALID system comprises of three tiered levels of assessment as detailed below:

- Basic Assessment – This is the starting point where trees with obvious risk features are identified. Where the risk is not Acceptable or Tolerable a Detailed Assessment is conducted.
- Details Assessment – This assessment is carried on those trees highlighted by the Basic Assessment and consists of a more detailed assessment of the obvious risk features and tree condition. This assessment may also be carried out because we've been asked to take a closer look at a particular tree.
- Advanced Assessment - If we need more information about the likelihood of failure, an Advanced Assessment can be carried out. This might be an aerial inspection or decay detection because we suspect extensive decay with significant strength-loss and want to find out whether the tree has a high enough ‘safety factor’.

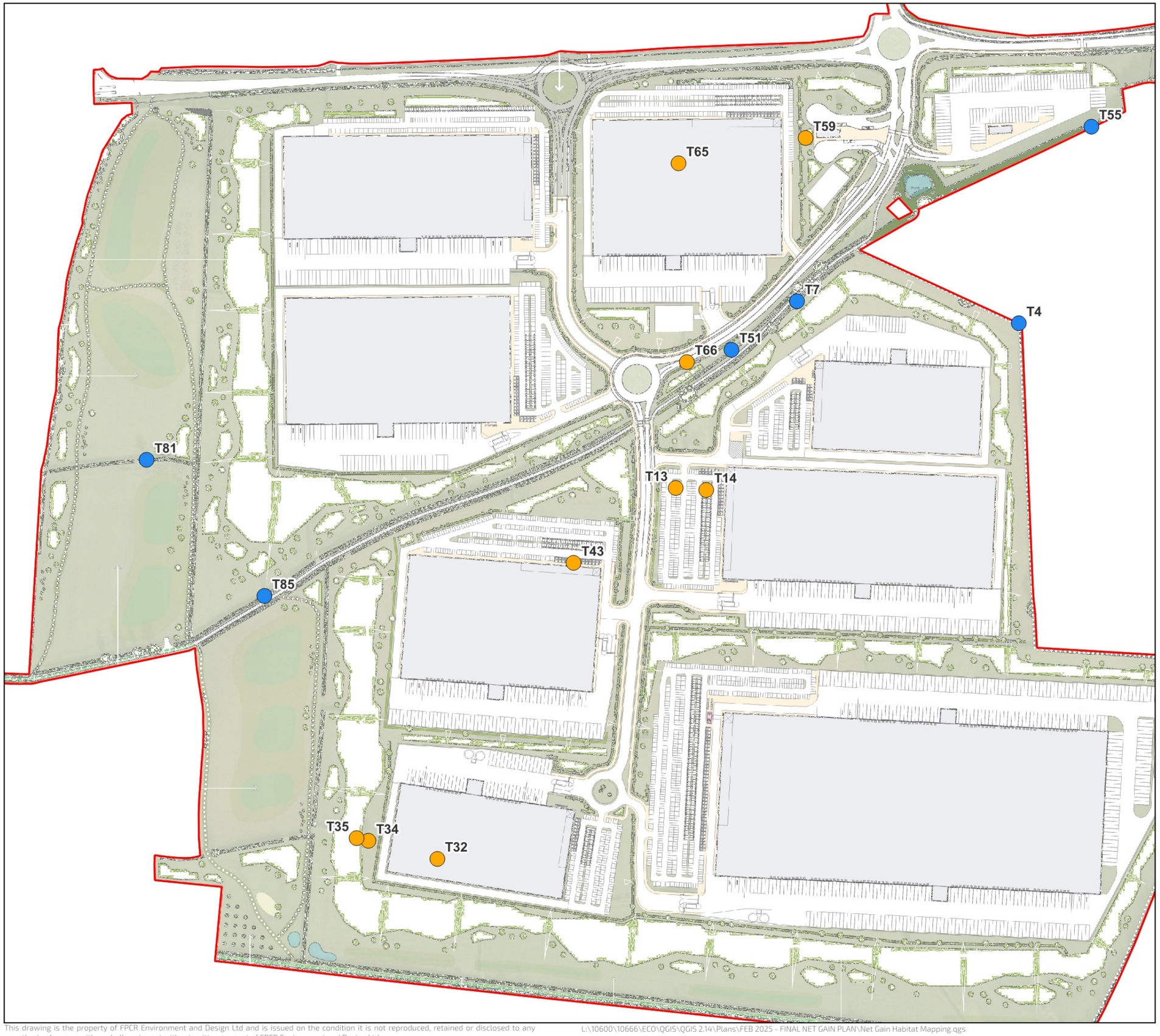
4.28 The Likelihood of Occupancy, Consequences, and Likelihood of Failure are used to assess risk levels to inform management (**Table 2**).

Table 2: Management Priority Ratings

VALID Risk Level	Definitions
Not Acceptable	Risks will be reduced to an Acceptable level
Not Tolerable	Risks will be reduced to an Acceptable level, but with a lower priority than red Not Acceptable risks
Tolerable	Risks will not be reduced but may require an increased frequency of assessment than green Acceptable risks
Acceptable	Risks will not be reduced

4.29 A Not Acceptable risk level is reserved for trees in danger of structural disintegration or accelerated physiological decline within the foreseeable future and to which without intervention may be lost.

4.30 Following the inspection, a monitoring report will be produced detailing any remedial actions or interventions determined to be necessary to promote veteran tree longevity.



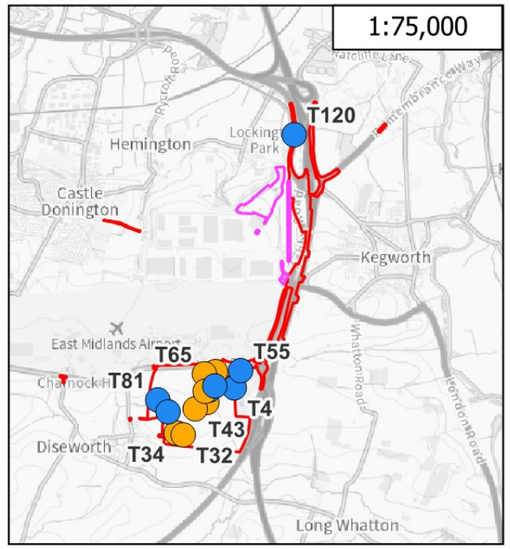
N

0 25 50 75 100 125 m

Key

Veteran Tree Retention

- lost
- retained



date	drwn/chkd
28/05/25	JDH / SJA

client
SEGRO (Properties) Ltd and SEGRO (EMG) Ltd

project
Esat MIdlands Gateway Phase 2 (EMG2)

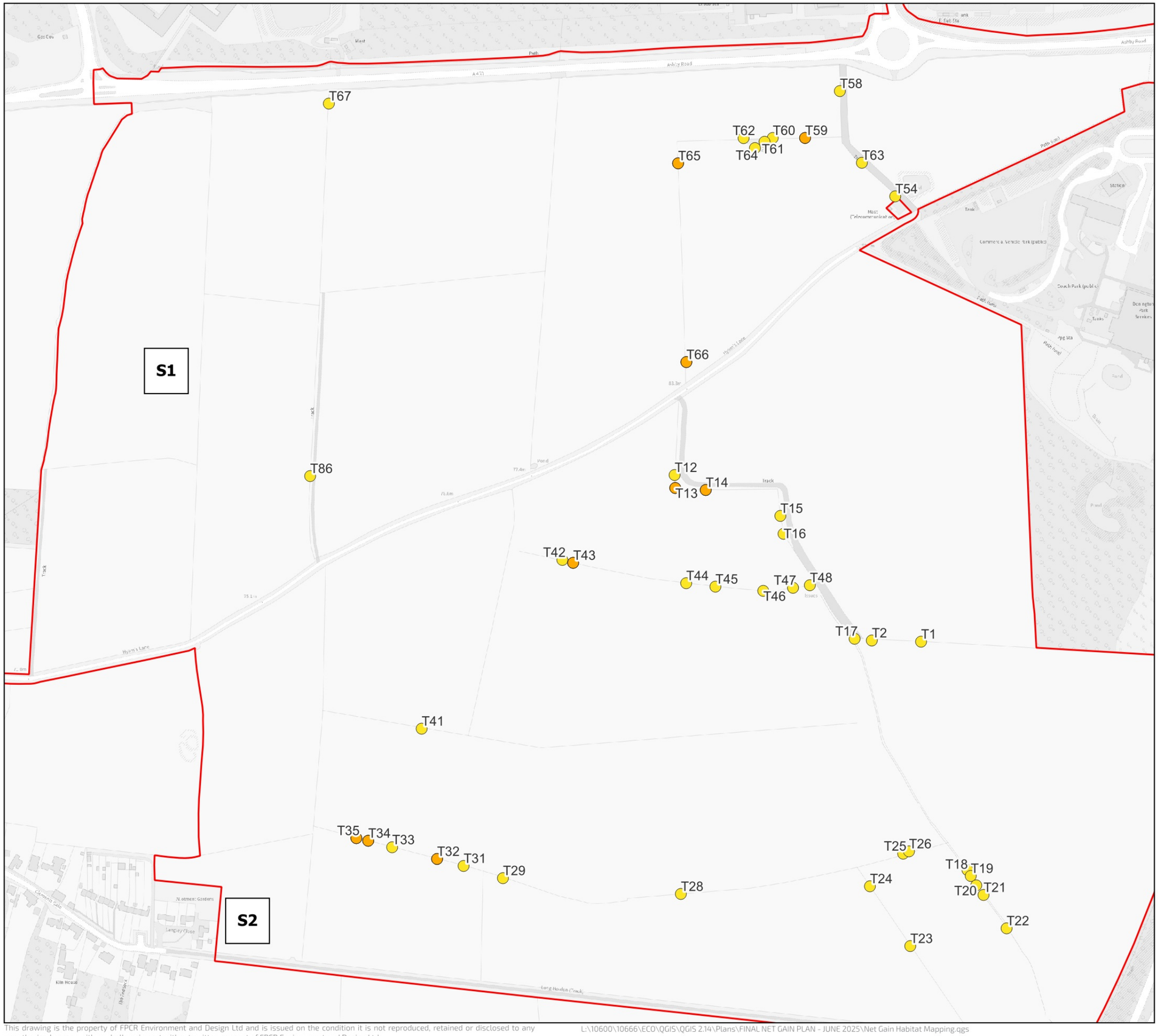
title	scale
VETERAN TREE LOCATION	1:4,000 @ A3

number	rev
FIGURE 1	-

FPCR | environment & design

L:\10600\10666\ECO\QGIS\QGIS 2.14\Plans\FEB 2025 - FINAL NET GAIN PLAN\Net Gain Habitat Mapping.qgs

t: 01509 672772 e: mail@fpcr.co.uk w: www.fpcr.co.uk



N

0 25 50 75 100 125 m

Key

Trees to be removed

- Veteran Tree
- Other Tree

Sx Temporary stockpile locations for felled timber arisings

date: 20/06/25

drwn/chkd: JDH / SJA

client: **SEGRO (Properties) Ltd and SEGRO (EMG) Ltd**

project: **Esat MIdlands Gateway Phase 2 (EMG2)**

title: **TREE REMOVAL PLAN**

scale: 1:4,000 @ A3

number: **FIGURE 2**

rev: -

FPCR | environment & design

L:\10600\10666\ECO\QGIS\QGIS 2.14\Plans\FINAL NET GAIN PLAN - JUNE 2025\Net Gain Habitat Mapping.qgs

t: 01509 672772 e: mail@fpcr.co.uk w: www.fpcr.co.uk