Corby Borough Council

Cheltenham Road, Corby

LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN

February 2019

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CONTENTS

FIGURES

1.0 INTRODUCTION

1.1 The following Landscape and Ecological Management Plan (LEMP) has been prepared by FPCR Environment and Design Ltd. on behalf of Corby Borough Council. This report is to discharge planning Condition 11 of full planning consent reference: 18/00365/REG3 for development of land off Cheltenham Road, Oakley Vale, Corby (grid reference: SP883860). In addition, this report will provide a summary of the proposed management to provide good quality habitat for great crested newt (GCN) in the local area to maintain the favourable conservation status of GCN in line with the European Protected Species Licence (EPSL).

Condition 11:

Landscape and Ecological Management Plans (LEMPs)

A landscape and ecological management plan (LEMP) shall be submitted to the local planning authority for approval in writing prior to occupation of the development.

The content of the LEMP shall include the following:

a) Description and evaluation of features to be managed

b) Ecological trends and constraints on site that might influence management

c) Aims and objectives of management

d) Appropriate management options for achieving aims and objectives

e) Prescriptions for management actions

f) Preparation of a work schedule (including an annual work plan capable of being rolled forward over a five-year period)

g) Details of the body or organisation responsible for implementation of the plan

h) Ongoing monitoring and remedial measures.

The LEMP shall also include details of the legal and funding mechanism(s) by which the long-term implementation of the plan will be secured by the developer with the management body(ies) responsible for its delivery. The plan shall also set out (where the results from monitoring show that conservation aims and objectives of the LEMP are not being met) how contingencies and/or remedial action will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved scheme. The approved plan will be implemented in accordance with the approved details.

Site Location and Context

1.2 The scope of this document covers the residential application area, and council owned and managed land included within the remit of the EPSL licence.

1.3 Prior to development, the development site comprised grassland, scrub and ruderal vegetation present. No built structures were present on site.

Development

1.4 The development will comprise 18 units with an access road and an area of open greenspace.

Ecological Background

1.5 The following documents were reviewed to establish the ecological background for the development and highlight specific measures relating to protected species.

- Former Railway Halt, Oakley Vale, Corby; Ecological Appraisal REV B, FPCR, May 2018.
- Natural England Pre-Submission Screening (PSS) documents for a GCN EPSL (EPSL), Feb 2018.

Designated Sites

1.6 No internationally designated sites of nature conservation concern occur within 10km of the site, or sites of special scientific interest (SSSI) within 2km of the site.

1.7 Two local wildlife sites (LWS) and two potential wildlife sites (pLWS) are located c.1km from the site. The development will not result in any adverse impacts upon these sites.

Site Flora

1.8 No rare vascular plants were found, and there were no invasive species or notifiable weeds. The semi-natural habitats present on site were considered to be of local level value to wildlife. These included dense scrub along the eastern edge of the site, with areas of poor semi-improved grassland and tall ruderal vegetation, and a small area of marshy grassland.

Site Fauna

1.9 A medium GCN population occurs within off-site ponds P2, P3, P4 and P5, suitable terrestrial habitats for this species occur within the development site. Reptiles (common lizard) are present on site.

1.10 Scrub on site provides foraging and nesting opportunities for the local bird population.

1.11 Habitats on site provide limited foraging opportunities for bats, no built structures or trees were identified on site suitable to support roosting bats.

1.12 No potential habitat suitable to support otter or water vole is present on site.

1.13 No evidence of the presence of badgers was recorded on site.

2.0 IMPLEMENATION OF THE PLAN

Table 1: Roles & Responsibilities

Appointed Persons	Details	Role
Site / Contractors Manager	To be confirmed once construction commences	Responsible for the implementation of this Management Plan during construction.
Management Company	Corby Borough Council	Responsible for the implementation of management / maintenance upon completion of development.
Suitably Qualified Ecologist	FPCR 01509 672 772 mail@fpcr.co.uk	Specialists available to provide expert advice.

2.1 As a component of this Management Plan, funds will be made available to implement creation, management and maintenance works.

3.0 OBJECTIVES

Long–term Ecological Management Objectives

3.1 Due to the size of the site and to allow effective land use for development, there is limited potential for on-site provision of mitigation. Therefore, mitigation will be implemented in the areas as follows:

- On-site provision;
- Land adjacent to the north east of the site;
- Land to the north with site connectivity through ditch D1; and
- Land to the southwest with site connectivity along the adjacent railway embankment.

3.2 This Ecological Management plan promotes the following objectives for management of the areas identified above.

Objective 1:

- To create new habitats to enhance biodiversity of the local area and provide new foraging and opportunities for rest and shelter for GCN, reptiles and other wildlife.

Objective 2:

- To maximise existing (retained) habitats biodiversity potential through appropriate management and maintenance practices in the long term.

Objective 3:

- To balance recreational use of the site with the wildlife interests within and adjacent to the site.

4.0 OBJECTIVE 1

4.1 To create new habitats to compensate for loss of, and impacts to existing habitats. To enhance biodiversity of the local area and to maximise the site's biodiversity potential through appropriate management practices which ensure that habitat corridors are maintained and created.

4.2 New habitat creation includes:

- New aquatic habitat;
- New native hedgerow planting;
- Tussock grassland;
- Amenity Grassland;

- Hibernacula for herpetofauna use;
- Log Piles for herpetofauna use.

New Aquatic Habitat

4.3 A stepping stone pond (PA, Figure E5.1) will be created c.130m south west of the site to provide aquatic habitat linking the ponds to the north and southwest of the site.

4.4 The pond will be constructed to provide a minimum of 250m^2 of pond surface area with depth of 1-2m at a 1:3 gradient. An appropriate fence such as a post wire and rail fence (with gated access for maintenance) will be installed to ensure Health and Safety.

4.5 The pond will be lined to ensure water is retained for a suitable length of time to allow occupation by GCN during the breeding season, and support marginal and aquatic plating. Marginal and aquatic planting will comprise native species (Table 2).

Table 2. Suggested Pond Planting

Species	Latin	Planting Zone
Floating sweet grass	*Glyceria* spp.	Marginal
Water mint	*Mentha aquatica*	Marginal
Water forget-me-not	*Myosotis scorpioides*	Marginal
Marsh marigold	*Caltha palustris*	Aquatic
Water moss	*Fontinalis antipyretica*	Aquatic
Purple loosestrife	*Lythrum Salicaria*	Pond edge
Meadow sweet	*Filipendula ulmaria*	Pond edge
Ragged robin	*Lychnis flos-cuculi*	Pond edge

4.6 Pond planting schemes should be low density to allow for natural colonisation.

4.7 Once established on-going management of this pond will include:

- Checking for fish and removal if necessary (to ensure suitability for GCN).
- An assessment of the ponds suitability for GCN (using Habitat Suitability Index).
- Removal of any dumped rubbish.
- Aquatic vegetation management to ensure no more than 50% of the ponds surface is covered in vegetation.

Native Species Rich Hedgerow

4.8 A new native hedgerow will be planted within the development site along the northern boundary to provide a faunal commuting route. The hedgerow will be a staggered double row (where possible). Individual standard trees and standard tree group planting within the open space areas will also be provided. Species which are to be incorporated include:

Table 3. Native Hedgerow Species Mix

Species	Latin	Composition
Hawthorn	*Crateagus monogyna*	30%
Blackthorn	*Prunus spinosa*	30%
Alder	*Alnus glutinosa*	15%
Field maple	*Acer campestre*	15%
Crab apple	*Mauls sylvestris*	5%
Dog rose	*Rosa canina*	5%

4.9 Other species which are approved by Network Rail[1] for planting adjacent to the railway which can be incorporated include: silver birch *Betula pendula*, bird cherry *Prunus Padus*, wild pear *Pyrs Communis,* Fir Trees – Pines *Pinus species*, mountain ash – *Whitebeams Sorbus* species, false acacia *Robinia* species), willow shrubs (shrubby *salix*), *Thuja Plicatat "Zebrina*".

4.10 The recommended period for planting of woody species is between October and March, but also avoiding times of inundation or prolonged ground frost within this period. If planting is required outside of the October-March season, bare root trees will be replaced by a containerised equivalent to be approved by the project Landscape Architect.

4.11 Hedgerow Management will be as follows:

- During establishment (the first 3 years after planting) the base of hedge will be kept weed and grass free using suitable means.
- Application of appropriate fertiliser at a rate of 60g/ m² during early May and late September during establishment.
- Water during the first 5 years following planting, water trees in periods of extreme drought. After establishment continue to water only if deemed to be required
- Trees will be supported by stakes, or similar, during the establishment period and these can be removed after 2-3 years, unless there is soil or root movement when the tree is rocked. Stakes and ties to be regularly inspected and adjusted or replaced as necessary.
- For the first five years all dead and dying specimens are to be replaced within the next available planting season with either the same species or similar species. This is to allow some flexibility and to avoid problems encountered with 'Same Tree Disease'.
- Pruning of dead, diseased or damaged branches should be carried out as appropriate to promote healthy growth and natural shape. Any diseased or rotten wood will be pruned back to sound wood, including the removal of main stems and limbs.
- Once established (where possible) cut retained hedgerow along one side only annually in late winter after any berries have been eaten by birds, alternating between the two sides each year. Hedgerows should not be cut during heavy frost or during the bird nesting season (early March to the end of August).
- Cut the hedgerow to an 'A' profile to promote a wide base, with hedgerow trees allowed to mature into standard trees where possible to provide a more varied hedgerow structure.

[1] *Development Control Committee Planning Application 18/00365/REG3,* 15th January 2019

Species Rich Tussocky Grassland

4.12 Areas of native species rich tussocky grassland will be established over existing amenity grassland in the area adjacent to the north east of the site, along with new areas to be established on site along the northern boundary gas pipeline easement.

4.13 Existing grassland will be stripped (if required) to reduce nutrient levels and remove competition and / or areas will be over-seeded with Emorsgate EM10 (or similar tussock grass mix).

4.14 New grassland areas to be sown should be first ploughed or rotovated and raked or harrowed to produce a medium fine, firm tilth or mown short and scarified. Fertiliser will not be applied at any point as this will lead to dominance of nutrient loving species such as broad-leaved grasses, nettles and docks. The seed mix will be sown at a density as per the general manufacturer's recommendation to allow space for each species to establish and to produce good ground cover.

4.15 Seed will be sown in the autumn, winter or spring, selecting a time when the soil is moist and can be worked. Seeding will be sown by hand broadcasting, seed fiddle, spinner, hydra seeding or grass seed drill on the surface and will not be raked or harrowed in. A Cambridge (ribbed) roll will be used for one or two passes to firm and level the surface and create good seed soil contact.

4.16 The Contractor should protect newly seeded areas to prevent seedling destruction by pedestrians.

4.17 Following grassland seeding the following management will be implemented:

- Regular cutting when the grassland reaches 150mm in length (up to 4 times) as the sward is establishing in year 1 to reduce the number of coarse grasses and pernicious weeds.
- After the first year, up to two grass cutting visits should be undertaken per year. Grass to be cut to a height of 150mm. This should be carried out twice annually in early spring (March) and late summer (late August-September) OR once during either early spring, or late summer allowing a long flowering period and sufficient time for seeds to disperse.
- Grassland cutting areas should be rotational to ensure that there is always an area of longer grassland to provide sufficient habitat for shelter and foraging for wildlife. Furthermore a 5m strip of uncut grassland (c.25%) will be maintained around P2 at any one time.
- Tussock grassland along hedgerows/tree groups will be cut once every two years to encourage a dense tussocky structure of benefit to a wide range of wildlife.
- Tussock grassland adjacent to paths and roads will be mown regularly to maintain a tidy appearance along the path edge (no more than 0.5m). These margins shall be managed the same as amenity grassland, mowing to a height of 25mm, at 14-21 day intervals or whenever the grass reaches a height of 60mm, throughout the growing season.
- Prior to spring mowing a check will be made to ensure that no features suitable for GCN / reptile hibernation are disturbed. If present, cut to a suitable height using hand held tools (strimmer or scythe).
- Arising's should ideally be removed from the site and no more than 10 days after cutting. This will prevent enrichment of the soil through decomposition. However, arising's can be placed in piles within marginal areas not adjacent to public access routes or water bodies, to provide microhabitat for amphibians, invertebrates and small mammals.
- Re-sow any worn grass areas as required to maintain a dense sward of grass.

- Pernicious weeds should be treated using herbicide once the sward height reaches 100mm. Appropriate care should be taken when using herbicide adjacent to aquatic habitats to prevent pollution of such habitats.

Amenity Grassland

4.18 Amenity grassland areas will be established within the development site. Within open space areas these should be seeded within a flowering lawn mix (Emorsgate EL1 or similar) and areas which will form part of private gardens (Emorsgate EG21 Fine lawn grass mixture or similar). A suitable turf may also be used if the lawns are to be laid outside of the period spring or late autumn.

4.19 Areas to be sown should be first ploughed or rotovated and raked or harrowed to produce a medium fine, firm tilth. Seed will be sown in the spring or late autumn, selecting a time when the soil is moist and can be worked. A Cambridge (ribbed) roll will be used for one or two passes to firm and level the surface and create good seed soil contact.

4.20 During initial establishment amenity grassland areas will be mown to a height of 50mm two weeks after germination. Two weeks later mow to a height of 35mm and repeat to a height of 30mm after a further two weeks. Reduce the cutting height by 5mm for the following cut to a height of 25mm then cut at 14-21 day intervals throughout the growing season or whenever the grass reaches a height of 60mm. Allow a maximum of 21 cuts in total.

4.21 Grassland should be maintained to form a tidy, pleasing appearance, avoiding 'tramlines' and uneven cutting. Remove grass cuttings from site. Vary the mowing frequency to ensure that there is no excessive cutting during dry periods and that mowing is continued until the grass stops growing. Increase mowing height to 40mm in dry weather.

4.22 Should weather conditions be such to stimulate grass growth, additional cuts may be required. Similarly in very wet conditions all grass cutting operations should cease until conditions allow for grass cutting to take place without damaging the surface levels, or creating 'divots'' from the machinery.

4.23 Strim all grass edges and mowing margins, maintaining the grass at the same height as the main lawn areas. Care shall be exercised by the Management Contractor when mowing or strimming around trees and hedges or other structures.

4.24 Roll grass in April, June and August, and scarify the sward and spike the ground during October in suitable open weather conditions using a suitable scarifying and spiking machine.

4.25 All litter, stones or other debris should be collected and removed by the Contractor immediately prior to grass cutting operations.

4.26 During the first 5 years following seeding, water amenity grass areas during periods of extreme drought. After establishment continue to water only if deemed to be required. To aid the natural establishment of amenity grassland water only where unavoidable when the grass is going brown and appears to be suffering from drought. Most of the grass species are native, or tolerant of drought. When watering, water to field capacity (minimum 20L/m^2). Water in the morning or in the evening to restrict water evaporation.

4.27 The sward should be kept substantially free of broad-leaved weeds by the application of a suitable selective herbicide, and should be maintained in a healthy condition during the course of

the management period and to be suitable for its intended use. Apply an approved turf fertilizer, selective weed killer and moss retardant in May and September, applying strictly in accordance with the manufacturer's instructions, Control of Pesticide Regulations, COSHH Regulations and product COSHH sheet in suitable weather conditions, using a skilled and certified operative.

4.28 For amenity grassland areas that are failing and need to be replaced, cut out sections of distressed and failing or dead areas of turf using a suitable turf-stripping machine or for small areas by hand. Supply and lay new turf of a suitable standard and lay flush with existing sward, filling any cracks and top dressing with a 70:30 ratio mix of sand and screened topsoil. This sand/soil mix shall also contain grass seed of the same or similar species to the turf. For more wholesale degradation of the turf sward, the entire area will require to be re-seeded. Cultivate or power-harrow the affected area until a fine tilth is achieved. Apply a pre-seeding fertilizer at a rate of 70g/m² and re-seed. To remove any weed generated by the re-seeding process, apply a selective lawn herbicide to the manufacturer's instructions.

Hibernacula

4.29 Four hibernacula suitable to support hibernating herpetofauna will be constructed, with two placed in the area to the south east of the site (adjacent to an off-site balancing facility), and two in the area to the south west to improve areas of shelter / connectivity.

4.30 The hibernacula will be constructed to dimensions 2m (w) x 1m (l) x 1m (h), based on the standard specification for hibernacula provided in the Great Crested Newt Mitigation Guidelines[2].

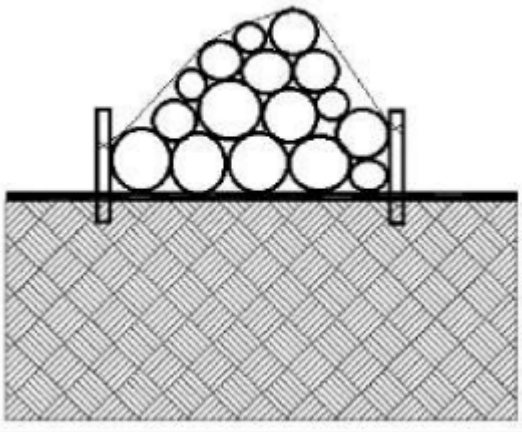
4.31 Construction of the hibernacula will involve the excavation of a trench to a depth of 300mm that is then filled with demolition rubble / stone and logs / brash to a height of 700mm above ground. If necessary, the edges of the hibernacula can be formalised using rockery stone. The hibernaculum will then be capped using root barrier membrane (where required) and topsoil to a maximum depth of 250mm on top and 200mm toward the sides. These margins will be left open to allow access to amphibians and reptiles. In the event that the underlying soils are not free-draining the hibernacula will be constructed entirely above ground but to the same overall dimensions.

4.32 Following construction, the hibernacula will be planted with grassland seed mix (Emorsgate EM10 or similar) as described above (see species rich tussocky grassland section), and scrub. Scrub to be planted with approximately 30 plants. Species includes: hawthorn, blackthorn, dog rose, guelder rose *Viburnum opulus,* holly, crap apple, damson *Prunus domestica sub sp insititia*, silver birch and / or willow shrubs.

Log Piles

4.33 Two log piles are to be created within the area of plantation woodland adjacent to the north east of the site to provide additional shelter habitat for herpetofauna. Log piles will comprise of cut logs c.1m (l), 50mm – 250mm diameter piled to the dimensions of 1m (w) x 1m (l) x 1.5m(h) and secured with four corner stakes (as shown below). This habitat will be created from the cut materials from site / management activities and can be 'topped up' as required throughout the management of the habitats.

[2] English Nature (2001) *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough. Under revision



4.34 This will improve the structure of the understory and provide a source of decaying wood providing an invaluable habitat for insects and thus a foraging resource for GCN, reptiles and other wildlife.

5.0 OBJECTIVE 2

5.1 To maximise existing (retained) habitats biodiversity potential through appropriate management and maintenance practices in the long term which are outlined below.

Existing Woodland Management

5.2 Existing woodland will be brought under management to improve the condition of the woodland in three areas. These are located to the north, west and an area adjacent to the site in the south east (Figure E5.1 Post Development Management & Maintenance).

5.3 Selective thinning of the existing woodland in the south east will take place to reduce tree competition and allow light penetration for improved ground flora / establishment of the woodland seed mixture (see below). Thinning will follow forestry commission 'making woodland work' guidance[3] as outlined below:

- An initial assessment of the woodland will be undertaken (with contractors on site) to identify both the highest quality trees to retained and poorest condition trees to remove. Species diversity must also be considered when selecting trees to remove.
- Thinning to take place at 5 year intervals.
- Works undertaken outside of the nesting bird season (March to September inclusive).
- To establish a high quality ground flora, the woodland will be seeded with a woodland seed mixture (EW1 or similar). Where necessary ground vegetation will be cut / removed and the soil disturbed then over-seeded (this is to be established whilst on site with contractors).

5.4 Other areas of woodland in the north and to the west will undergo corrective pruning to maintain the health of the plants.

[3] Forestry Commission England. *Making Woodlands Work: Thinning*. [Available online: https://www.forestry.gov.uk/ pdf/ fccallingcardsthinning.pdf/ $FILE/fccallingcardsthinning.pdf]

5.5 Arising's from any management activity will, where possible, be used to provide opportunities for invertebrates, bryophytes, fungi, amphibians and other wildlife by forming micro-habitats from piles of dead wood or recumbent dead logs. Any diseased wood will be removed from the site to discourage the further spread of disease.

5.6 No removal of woody vegetation will take place during the bird nesting season unless a thorough survey by an appropriately experienced ecologist first confirms that no active nests are present.

Existing Scrub Management

5.7 The scrub currently present on land adjacent to the north of the site around D1 will also be brought into long term management to improve the condition and biodiversity of this habitat and the ditch as suitable connective habitat for GCN.

5.8 The scrub will be thinned to provide colonisation gaps and ecotones of benefit to wildlife. Management will follow RSPB guidance on scrub management[4] as outlined below:

- Patches of scrub will be brush cut/ flailed at c.250mm. Patches will comprise areas 1/5th of the total scrub area cut on a rotational basis every third year.

Existing Grassland Areas

5.9 The existing grassland in each of the three off-site enhancement areas have potential to provide increased habitat suitability for GCN and a range of other species through a relaxed mowing regime implemented to allow the establishment of tussocky grassland (as outlined in Section 4 above).

Pond P2

5.10 Pond P2 (adjacent to the north east of the site) is currently overgrown with common reed *Phragmites australis* and scrub species. This habitat will be managed to improve the ponds suitability for GCN as a breeding pond (and other amphibians). Management includes:

- Thinning of the scrub (by 50%) to create open areas and reeds reduced to a maximum of 1/3 of the pond area. Aquatic vegetation management to ensure no more than 50% of the ponds surface is covered in vegetation.
- Arising retained on banks for 48 hours to allow invertebrates to return to the water before being moved to a dedicated composting area, or off-site.
- Removal of any dumped rubbish.
- An assessment of the ponds suitability for GCN (using Habitat Suitability Index) and remedial actions to the management / maintenance will be established if required.

Litter

5.11 Litter should be removed from the site as part of the general management and maintenance visits.

[4] RSPB. *Farming for wildlife: Scrub management; creating, restoring and maintaining scrub for wildlife.* [available online: https://www.rspb.org.uk/globalassets/downloads/documents/farming-advice/scrub-management-advisory-sheet-england_tcm9-207551-2.pdf]

Protected / Notable Species

5.12 Small gaps will be left in fencing to each garden (where possible) to permit access for wildlife such as hedgehog, badger and fox. The gaps will be 125 x 125mm (suggested locations shown on Figure 1).

5.13 As an additional enhancement of the site a number of bat boxes will be installed to provide potential roosting opportunities for bats. Bat tubes (2FR Schwegler) should be installed upon the upper brickwork of new buildings (see Figure 1). These boxes are designed to be self-cleaning and thus will require no maintenance.

6.0 OBJECTIVE 3

6.1 To balance recreational use of the site with the wildlife interests within and adjacent to the site, a number of measures have been included. The measures aim to reduce the impacts on habitats for wildlife (particularly GCN) in relation to disturbance, degradation and littering. These include;

- Installation of stock proof fencing to mark footpaths and prevent access to important habitat areas.
- Installation of a dog bin to reduce impacts occurring due to the deposition of faeces.
- Installation of GCN interpretation board to increase public knowledge and thus likely decrease degradation / disturbance of habitats.

6.2 All of the above will require on-going maintenance to include;

- A yearly check to ensure that fencing, bins and signs are in good condition. Any damage / degradation to these measures will be repaired or replaced.
- Regularly collection and removal of dog waste to avoid harm to wildlife or encouragement of pests.
- Checking and removal of dumped litter/ waste.

6.3 In addition areas of shorter mown grassland will be maintained to highlight the footpath areas and thus reduce impacts to other habitat areas.

7.0 MONITORING, REMEDIAL MEASURES AND CONTINUING WORK PROGRAMME

7.1 In order to ensure that the habitats created within the site reach and maintain their maximum value for nature conservation, all habitats will be monitored on a regular basis.

7.2 The Management Plan will run for five years, with the work programme reviewed after three years by a suitably qualified and experienced ecologist, arboriculturist and landscape architect. Following the five years plan period covered under this management plan, subsequent reviews will be completed by the LPA or appointed consultees, and the monitoring and management completed in perpetuity in accordance with the revised management plan and any S106 Agreement.

7.3 The results of monitoring will be used to inform possible revisions to this management plan. An outline of the five year work programme is detailed in Table 4. Where the result of the monitoring

show that conservation aims and objectives of this management plan are not being met the monitoring results will be used to inform possible revisions to this management plan for which the Management Company will be responsible for implementing the changes / any remedial actions required to ensure that the development delivers the biodiversity objectives. Therefore, flexibility is essential and the management regime should be altered in order to respond promptly to changing circumstances.

Table 4: Five Year Work Programme

Description of works	Years Active					
	1	2	3	4	5	Post 5 yrs
Hedgerows, Trees and Shrubs						
1. Establish as per this document.	✓					
2. Water trees in periods of extreme drought / as required in the morning or in the evening.	✓	✓	✓	✓	✓	
3. Top up mulch levels where necessary.		✓	✓	✓	✓	
4. Fertilise areas of tree, shrub or hedgerow planting using an approved liquid feed (N10:P15:K10) at a rate of 60g/m² during early May and late September.		✓	✓	✓	✓	
5. Pruning will be completed on a rotational basis. Cut in an 'A' profile in late winter to avoid the bird breeding season and after fruiting, but not during severe frost.		✓	✓	✓	✓	✓
6. Prune out any diseased or rotten vegetation to sound wood. Do not site burn.		✓	✓	✓	✓	✓
7. Examine tree stakes and ties. If the tree has yet to establish, replace or adjust ties, spacers and tree tubes as appropriate. If the tree has established well, then remove all stakes, ties, spacers, tubes etc. and make good surfaces disturbed, filling any holes with suitable topsoil.		✓	✓	✓	✓	✓
8. All planting areas to be kept weed free by hand weeding or herbicide treatment.		✓	✓	✓		
9. Replacement of specimens as stated.	✓	✓	✓	✓	✓	✓
Woodland						
1.Establishment of understory as per this document.						
2.Woodland thinning.	✓				✓	
3. Prune out any diseased or rotten vegetation to sound wood. Do not site burn.	✓	✓	✓	✓	✓	✓
Scrub						
1.Scrub thinning –patches to be brush cut/ flailed at c.250mm. Patches will comprise areas 1/5th of the total scrub area cut on a rotational basis every third year.	✓			✓		✓
Tussock Grassland						
1. Establish as per this document.	✓					
2. Protect newly seeded areas.	✓					
3. Regular cutting when the grassland reaches 150mm in length (up to 4 times) as the sward is establishing.	✓					
4. Grass to be cut to a height of 150mm on a rotational basis. This should be carried out twice annually in early spring (March) and late summer (late August-September) OR once		✓	✓	✓	✓	✓

Description of works	Years Active					
during either early spring, or late summer.						
5. Tussock grassland adjacent to paths and roads will be mown regularly (as per amenity grassland) to maintain a tidy appearance along the path edge (no more than 0.5m).	✓	✓	✓	✓	✓	✓
6. Remove grass cuttings from site or place in a designated compost area.		✓	✓	✓	✓	✓
7. Re-sow any worn grass areas as required to maintain a dense sward of grass		✓	✓	✓	✓	✓
8. Pernicious weeds should be treated using herbicide once the sward height reaches 100mm. Appropriate care should be taken when using herbicide adjacent to aquatic habitats to prevent pollution of such habitats.	✓	✓	✓	✓	✓	✓
Amenity Grassland						
1. Establish as per this document.	✓					
2. During initial establishment amenity grassland mown to a height of 50mm two weeks after germination. Two weeks later mow to a height of 35mm and repeat to a height of 30mm after a further two weeks. Reduce the cutting height by 5mm for the following cut to a height of 25mm then cut at 14-21 day intervals throughout the growing season or whenever the grass reaches a height of 60mm. Allow a maximum of 21 cuts in total.	✓	✓	✓	✓	✓	✓
2. Water amenity grass areas during periods of extreme drought. After establishment continue to water only if deemed to be required. Water to field capacity (minimum 20L/m2). Water in the morning or in the evening to restrict water evaporation.	✓	✓	✓	✓	✓	
3. Maintain to form a tidy appearance. Vary the mowing frequency to ensure that there is no excessive cutting during dry periods and that mowing is continued until the grass stops growing. Increase mowing height to 40mm in dry weather.		✓	✓	✓	✓	✓
4. Remove grass cuttings from site or place in a designated compost area.	✓	✓	✓	✓	✓	✓
5. Strim all grass edges and mowing margins, maintaining the grass at the same height as the main lawn areas.		✓	✓	✓	✓	✓
6. Roll grass in April, June and August, and scarify the sward and spike the ground during October in suitable open weather conditions using a suitable scarifying and spiking machine.		✓	✓	✓	✓	✓
7.All litter, stones or other debris should be collected and removed by the Contractor immediately prior to grass cutting.	✓	✓	✓	✓	✓	✓
8. The sward should be kept substantially free of broad-leaved weeds by the application of a suitable selective herbicide.		✓	✓	✓	✓	✓
9. Replace any failed area of grassland.						
Waterbodies (D1, P2, PA)						
1. Thinning of the scrub (by 50%) to create open areas and reeds reduced to a maximum of 1/3 of the pond area.	✓			✓		✓
2. Aquatic vegetation management to ensure no more than 50% of the ponds surface is covered in vegetation.	✓	✓	✓	✓	✓	✓
3.Arising retained on banks for 48 hours to allow invertebrates to return to the water before being moved to a dedicated composting area, or off-site.	✓	✓	✓	✓	✓	✓
Log Piles						

Description of works	Years Active					
1. Top up log piles with cut material from site management.		✓	✓	✓	✓	✓
Litter						
1.Collect and remove all litter during each site visit.	✓	✓	✓	✓	✓	✓
2. Removal of dumped rubbish from waterbodies.	✓	✓	✓	✓	✓	✓
Stock Proof Fencing / Dog Waste Bins/ GCN Interpretation Boards						
1.Check on the condition. Any damage / degradation to these measures will be repaired or replaced.		✓	✓	✓	✓	✓
Monitoring						
1. Monitor habitats every three years and use results to inform future management.	-	-	✓	-	-	✓
2. Habitat Suitability Assessment of Waterbodies (P2, PA)	✓			✓		✓
3. Checking of PA for the presence of fish		✓	✓	✓	✓	✓
4. Check hibernacula for functionality.		✓	✓	✓	✓	✓

Key

- Bat Box
- Hedgehog Gap - 125mm x125mm

Please note that these are suggested locations.

Bat Boxes - Bat boxes should be located at the apex but not located above a window at a height of at least 3m from the ground. A Schwegler 2FR bat box is illustrated below.

0 25 m

client
Corby Borough Council

project
Former Railway Halt
Oakley Vale, Corby

Bat Box Plan

scale 1:500 | drawn REH/JSE | issue 6/2/2019

drawing / figure number **Figure 1** | rev **7652-E-01**

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masterplanning ■ environmental assessment ■ landscape design ■ urban design ■ ecology ■ architecture ■ arboriculture

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