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PARKSIDE LINK ROAD LANDSCAPE AND HABITAT CREATION MANAGEMENT PLAN

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1. INTRODUCTION

Purpose of the Management Plan

- 1.1 This Landscape and Habitat Creation Management Plan has been produced by The Environment Partnership (TEP) Limited for Ramboll UK Limited on behalf of St Helen's Metropolitan Borough Council (SHMBC) to provide a framework for long term landscape management and maintenance of the open space and landscaping associated with the Parkside Link Road development (hereby referred to as the 'amended Proposed Scheme').
- 1.2 The planning submission together with the ES was submitted in March 2018 (the 'March 2018 ES') which referred to the development as the 'Proposed Scheme'. Following submission of the planning application further information and assessment was requested and a further package of planning information was prepared, including the 'Addendum ES' of which this document forms a part. The further assessment, in particular of traffic data, led to some development of the design and for the purposes of the Addendum ES the scheme is referred to as the 'amended Proposed Scheme'.

Scope of the Management Plan

- 1.3 The amended Proposed Scheme falls within both SHMBC and Warrington Borough Council (WBC) administrative boundaries. The Management Plan provides recommendations for all landscaping within the planning application boundary.
- 1.4 SHMBC will be responsible for the long term management of the amended Proposed Scheme, including the areas which fall within the WBC administrative boundary.
- 1.5 Details of anticipated timescales for the implementation of biodiversity protection and mitigation measures prior and during construction are provided in the Ecological Management Plan (PD-RAM-01-00-REP-EN-3001).
- 1.6 Detailed specifications for planting are provided in the Planting Schedule (sheet ref: PD-RAM-02-00-DR-EN-3073).
- 1.7 This Landscape and Habitat Creation Management Plan describes the amended Proposed Scheme in terms of landscape elements and management operations and provides recommendations for the duration of 30 years.
- 1.8 The Plan should be read in conjunction with the Landscape Masterplan (sheet refs: PD-RAM-01-00-DR-EN-3001 to 3012), Ecology Details (sheet refs: PD-RAM-01-00-DR-EN-3074 to 3075) and Ecology Details - Water Vole Mitigation (sheet ref: PD-RAM-01-00-DR-EN-3079). This Plan incorporates information from the Arboricultural Impact Assessment (TEP ref: 6354.06.001) and Ecological Assessments written to support the Environmental Statement accompanying the planning application.

Structure of the Management Plan

- 1.9 Chapter 2.0 provides a summary of the factors influencing management. Chapter 3.0 outlines the long-term aims and objectives for management and Chapter 4.0 sets out how the success of the plan will be monitored, reviewed and updated in perpetuity.
- 1.10 Appendix A provides a table of maintenance operations and costings, and Appendix B summarises relevant legislation.

Site Location

- 1.11 The amended Proposed Scheme is located to the east of the town of Newton-le-Willows in Lancashire (UK grid reference 360670E 394450N) and comprises a new road to link a proposed logistics development comprised of the Parkside Regeneration Development (Phase 1 and Phase 2) and the Parkside Strategic Rail Freight Interchange (SRFI), to the A49 Winwick Road and the M6 motorway. In addition to this, the amended Proposed Scheme will link the A49 Winwick Road and the M6 at Junction 22.
- 1.12 St Oswald's Brook lies to the south of the proposed development although surface water drainage from the scheme will outfall into the brook. The settlement of Hermitage Green is approximately 500m to the south, and Winwick approximately 1km to the south. To the west of the amended Proposed Scheme lies the A49 trunk road and the West Coast Mainline railway line (comprising the section between Winwick Junction and Golborne Junction).
- 1.13 The M6 motorway bisects the centre of the site crossing under Parkside Road.

Planning and Development Context

- 1.14 Planning permission is being sought from SHMBC and WBC for the formation of a new link road between A49 (Winwick Road) and M6 Junction 22 including the re-alignment of Parkside Road and other associated works as part of the amended Proposed Scheme.
- 1.15 The amended Proposed Scheme will comprise the following:
- (i) 1.45km of new single carriageway road extending eastwards from the A49 to the A573 Parkside Road (known as Parkside Link Road West);
 - (ii) 1.3km of new single carriageway road east of the M6 linking the A573 Parkside Road to a new roundabout on the A579 Winwick Lane (comprising 800m Parkside Link Road East, 250m Parkside Road West and 250m Parkside Road South);
 - (iii) 300m of new dual carriageway road extending westwards from the new roundabout to the M6 motorway at Junction 22 (known as Winwick Lane South);
 - (iv) 295m of new single carriageway road extending eastwards from the new roundabout to tie in with the existing A579 Winwick Lane (known as Winwick Lane North); and
 - (v) Reconfiguration of access to the properties on the south side of the A579 Winwick Lane.
- 1.16 This Management Plan has been written to support the full application for the Parkside Link Road development (ref: P/2018/0249/FUL) and to address planning application comments received from SHMBC and Merseyside Environmental Advisory Service (MEAS) dated 29th June 2018.

2. MANAGEMENT CONSIDERATIONS

Responsibility for Management

- 2.1 An appointed contractor will be responsible for the management of the site during the initial 12 month maintenance period.
- 2.2 Following handover the SHMBC grounds maintenance team will be responsible for operational management and maintenance of the landscape within the site boundary and will have the necessary experience and certificates of competence to undertake landscape management operations on site. They will ensure that management complies with the guidelines set out in this plan.

Financial Arrangements for Management

- 2.3 Financial arrangements for site management will be the responsibility of SHMBC after the initial maintenance period (contractor's defects period) ends.
- 2.4 A sum of monies will be given by SHMBC to a third party to manage off-site great crested newt (GCN) habitat.

Management Objectives

- 2.5 The long term management objectives of this plan are:
 - To ensure new planting establishes to create a high quality landscaping scheme to the Phase 1 and Phase 2 developments and link road;
 - To ensure the landscape scheme is successfully maintained;
 - To improve existing habitats and increase biodiversity gain on site as well as meeting landscape and highway needs;
 - To ensure the wildlife area and habitats are maintained as suitable for local wildlife; and
 - To comply with legal obligations and constraints.

Ecological Factors

Designations

- 2.6 Highfield Moss Site of Special Scientific Interest (SSSI) is located approximately 610m north-east of the amended Proposed Scheme boundary.
- 2.7 The amended Proposed Scheme overlaps with Gallows Croft Local Wildlife Site (LWS) at its eastern and western extents.
- 2.8 There are seven other non-statutory LWS and Site of Biological Importance (SBI) within 1km of the amended Proposed Scheme including:
 - Highfield Moss SBI - 610m north-east;
 - Newton Brook 03 LWS - 35m west of the south boundary;
 - Newton Brook 05 LWS - 450m west;
 - Willow Park LWS - 670m north;
 - Newton Lake and Southern Woodland LWS - 880m north;
 - Mesnes Park and Stream LWS - 880m north-west; and
 - Castle Hill LWS - 1km north-east.

Habitats and Species of Principal Importance in England

- 2.9 Section 41 of Natural Environment and Rural Communities (NERC) Act 2006 requires a list of habitats and species of principal importance in England to be drawn up.
- 2.10 Local Biodiversity Action Plans (LBAPs) provide an indication of the relative value given to existing habitats and species. The Cheshire Biodiversity Action Plan has been used when assessing the value of the habitats and species present within the amended Proposed Scheme boundaries.
- 2.11 The following priority species and habitats listed in the LBAP will be sustained within the amended Proposed Scheme:
- Woodlands;
 - Native bluebells;
 - Ponds;
 - Roadside verges;
 - Hedgerows;
 - Arable field margins;
 - Barn owl;
 - Farmland birds;
 - Great crested newt;
 - Water vole;
 - Otter; and
 - Bats.

Ecological Surveys

- 2.12 Below is a list of the ecological surveys carried out by TEP in 2017 and 2018 at the Proposed Scheme:
- Desktop studies;
 - Extended Phase 1 habitat survey;
 - Badger survey;
 - Bat surveys;
 - Water vole and otter survey;
 - Great crested newt surveys;
 - Breeding bird survey;
 - Winter bird surveys;
 - Reptile surveys;
 - Invertebrate surveys;
 - Arboricultural tree surveys; and
 - Invasive species survey.

Watercourses/Waterbodies

- 2.13 St Oswalds Brook is along the southern part of the amended Proposed Scheme and Cockshot Brook is adjacent to the eastern boundary. These watercourses form wildlife corridors providing potential connectivity for several species, including terrestrial and aquatic species.

Flora

Woodland/Trees

- 2.14 There are a number of areas of semi-natural broadleaved woodland and plantation woodland in the western half of the site. A small area of plantation is also associated with Woodhead Farm in the western half of the amended Proposed Scheme.
- 2.15 The woodland and scattered trees provide wildlife corridors and nesting, roosting and foraging habitat for birds, bats and other wildlife.
- 2.16 Consultation with SHMBC and WBC confirmed no Tree Preservation Order's (TPO) are present within the amended Proposed Scheme.
- 2.17 Trees, shrub, woodland and hedgerow planting along the proposed route of the road will be used to mitigate for loss of areas of woodland and scattered trees. The planting mix will include native species. A full species list is provided in the Planting Schedules (sheet ref: PD-RAM-02-00-DR-EN-3073).
- 2.18 A felling licence may be required for subsequent woodland management and improvement works.

Native Bluebells and Ground Flora

- 2.19 Bluebell *Hyacinthoides sp.* are present in isolated clumps associated with Gallows Croft LWS. The general appearance, leaf size and flowers were suggestive of hybrid bluebell *Hyacinthoides non-scripta x hispanica*, although this could not be confirmed due to the early stage of flowering.
- 2.20 Native bluebell are protected under Schedule 8 of the Wildlife and Countryside Act (1981) which restricts picking or digging of bulbs for commercial purposes.
- 2.21 Any areas where bluebell are present, or other important areas of ground flora including woodland orchids that will be affected by works will be dug up in turves and translocated to equivalent habitats on site that will be retained.
- 2.22 Ground that has been disturbed will be re-seeded with a suitable woodland seed mix (Emorsgate Seeds, EW1 – Woodland Mixture) following completion of works.

Hedgerows

- 2.23 Existing hedgerows provide nesting, shelter, dispersal and foraging habitats for bats and birds and are a S41 habitat of principal importance under the NERC Act (2006).

Invasive Non-Native Species (INNS)

- 2.24 An Invasive Species Management Plan (report ref: PD-RAM-01-00-REP-EN-3002) has been written detailing management strategies for Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*), Rhododendron (*Rhododendron ponticum*), and Montbretia (*Crocsmia x crocosmifolia*) identified within the site boundary and will be complied with.

- 2.25 These species are listed on Schedule 9 of the Wildlife and Countryside Act (1981) as amended. Under this legislation it is an offence to plant or otherwise allow them to grow in the wild.

Fauna

Great Crested Newts (*Triturus cristatus*)

- 2.26 A small population of GCN was found within 250m of a known GCN pond by Woodhead Farm, located east of the former Parkside Colliery off the A579 Parkside Road.
- 2.27 GCN are protected under Schedule 5 of the Wildlife and Countryside Act (1981) as amended and the Conservation of Habitats and Species Regulations as amended (2017). Under this legislation it is an offence to intentionally kill, injure or capture GCN. It is also an offence to intentionally or recklessly damage, destroy or obstruct access to places used by GCN for shelter or protection or to disturb them whilst they are occupying these habitats.
- 2.28 A GCN and Common Toad Mitigation Strategy (TEP ref: 7066.013) has been produced to support this application.

Common Toad (*Bufo bufo*)

- 2.29 Common toads were found during reptile surveys in the west of the site.
- 2.30 Common toads are listed as a species of principal importance under Section 41 of the NERC Act (2006) alongside other native amphibian species, common toads are also protected from sale under the Wildlife and Countryside Act (1981).
- 2.31 A GCN and Common Toad Mitigation Strategy (TEP ref: 7066.013) has been produced to support this application.
- 2.32 Three ponds and six amphibian hibernacula will be created in the wildlife area in the east of the site which will benefit amphibians.
- 2.33 Areas of wildflower planting, hedgerow and woodland planting will also be provided to give structural diversity promoting the refuge and foraging potential of the area.
- 2.34 The landscape buffer zones which are being created around the link road will offer habitat areas for foraging and sheltering through the planting of additional areas of woodland, species-rich grassland seeding and SuDS ponds, seeded with a wetland meadow mix.

Breeding Birds

- 2.35 Fifty-seven bird species were recorded within 100m of the site during the Breeding Bird Survey. These include 541 species, Birds of Conservation Concern (BOCC), and confirmed breeding birds.
- 2.36 The trees, hedgerows, scrub and other vegetated areas across the site provide potential for nesting birds. Twenty bird boxes will be placed on suitable retained trees in the wildlife area by Woodhead Farm. The bird boxes will include 1B Schwegler box, 2GR Schwegler nest box and 2H Schwegler robin box.
- 2.37 All UK wild birds are protected while at the nest. Effectively, this means that if removal of habitats (which can include buildings, trees, hedges, scrub and grassland) cannot be timed to avoid the bird breeding season (March to August inclusive), then a survey by a suitably experienced ecologist will be required to ensure no nesting birds will be affected. There is generally no process to gain a

licence to disturb nesting birds; therefore, if active nests are present works will need to avoid the nest area until the young have fledged.

Barn Owl (*Tyto alba*)

- 2.38 Barn owl were noted foraging across the site during bat activity surveys. The planting of trees and hedgerows along the embankments of the road will also discourage barn owl from flying low over the road and subsequently being hit by vehicles.
- 2.39 Barn owls are protected under Schedules 1 and 9 of the Wildlife and Countryside Act (1981) and are S41 priority conservation species. It is illegal to kill, injure or take a wild Barn Owl or to take or destroy its eggs. It is also illegal to check nest sites or to disturb a Barn Owl while it is at or near a breeding site without a licence.

Bats

- 2.40 Activity surveys indicate that low numbers of five species of bat utilise the area within the site, including: common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P. pygmaeus*), noctule (*Nyctalus noctula*), Myotis bat(s) and brown long eared (*Plecotus auritus*).
- 2.41 The existing hedgerows, woodland and scattered trees on site offer some foraging and commuting potential for bats. The planting of trees and hedgerows will also ensure that foraging and commuting habitat for bats is maintained post development.
- 2.42 Six 2F Schwegler bat boxes will also be placed on suitable and retained trees in the west of the site to offer new roosting opportunities. Bat boxes will be installed at a density of three bat boxes to a tree, and orientated south east, south west and north facing. The location of the bat boxes on the trees is set out in the Landscape Masterplan Sheet 1 (sheet ref: PD-RAM-01-00-DR-EN-3001).
- 2.43 Bats and their roosts are also protected under Schedule 5 of the Wildlife and Countryside Act (1981) as amended and the Conservation of Habitats and Species Regulations as amended (2017).

Badger (*Meles meles*)

- 2.44 No setts, latrines or other field signs were found on site during the badger survey (TEP, 2017) however the site has potential to support badger.
- 2.45 Badgers and their setts are safeguarded under the Protection of Badgers Act (1992) to protect against baiting and deliberate harm or injury. Under this legislation it is illegal to interfere, damage or destroy a sett, obstruct access to a sett, or disturb a Badger whilst it is occupying a sett without a licence from Natural England.
- 2.46 If any holes or large scale digging is identified on site, works must cease immediately and a suitably qualified ecologist sought for advice. If badger are confirmed to be using the site a licence may be required from Natural England and mitigation measures would need to be put in place.

Water Vole (*Arvicola amphibious*)

- 2.47 Evidence of water vole was found at St Oswalds Brook on the southern boundary of the site and there is potential for water vole on Cockshot Brook. No works are expected at Cockshot Brook as part of this application.

- 2.48 Water vole are fully protected under Schedule 5 of the Wildlife and Countryside Act (1981) and are S41 priority conservation species. Water vole are protected from killing or injury, including the disturbance of their habitat.
- 2.49 A Water Vole Mitigation Strategy (TEP ref: 7066.015) has been written to prevent any impacts on the water vole population which is present in St Oswald's Brook. This Mitigation Strategy will be implemented in advance of the construction of a surface water outfall (Drawing PD-RAM-01-00-DR-C-0530-P01) and bank habitat enhancement areas (Drawing PD-RAM-01-00-DR-EN-3079).
- 2.50 The following habitats and features will be enhanced or created:
- Wildflower grassland (Germinal Seeds, mix RE1 species-rich meadow) will be created and maintained within the 10m wide buffer strip, adjacent to the northern bank of St Oswalds Brook.
 - Pockets of trees will be removed from the northern bank of the brook, partly to facilitate construction of the outfall, but also to create more open areas with native marginal vegetation, favoured by water voles. The areas to be cleared will be 3m upstream and downstream of the outfall works and 3m up the bankside. The banks in the opened up areas will be re-profiled to provide optimum water vole habitat, as shown in the indicative section on (Drawing PD-RAM-01-00-DR-EN-3079). These open areas will be seeded with a wet meadow mix (Germinal seeds, mix RE3 river floodplain / water meadow) and planted with common reed *Phragmites australis* along the shelf at the toe of the bank. The banks will be kept clear of scrub and maintained with a strim in the autumn.
- 2.51 Management measures for the habitat enhancement habitats are set out in Chapter 3.0.

Hedgehogs (*Erinaceus europaeus*)

- 2.52 Hedgehogs are Section 41 species of principal importance under the Natural Environment and Rural Communities Act (2006). The network of hedgerows and woodland included within the amended Proposed Scheme will offer foraging opportunities for this species.

Invertebrates

- 2.53 A total of 176 species were identified during the Invertebrate Survey. Invertebrate species of importance include: *Acanthiophilus helianthi* a fruit fly that is nationally scarce, *Agelastica alni* alder leaf beetle that is nationally rare, and *Tyria jacobaeae* cinnabar moth (a S41 species).
- 2.54 Soils mounds for invertebrates will be created in the wildlife area that is in the west of the site by Woodhead Farm.

Social Factors

Accessibility

- 2.55 There are a number of public rights of way (PRoW) footpaths to the east of the site on Barrow Lane which is a PRoW linking Parkside Road to Winwick Lane. There is a footpath from Parkside Road following a north easterly direction linking up with footpaths in Lowton Heath.

- 2.56 Management will be carried out in line with obligations on the landowner to ensure the health and safety of all site users.

Health and Safety

- 2.57 SHMBC will retain ultimate responsibility for the health and safety of the site and will review health and safety as part of its regular inspections of the site. The site will be subject to informal inspections and a formal annual inspection. Whenever the site is visited, any deficiencies in safety provision will be noted and acted upon through appropriate risk management procedures.
- 2.58 The amended Proposed Scheme will be managed to comply with all relevant health and safety legislation, approved codes of practice (ACOP's) and Health and Safety Executive (HSE) guidance. The landowner will be responsible for ensuring that risk assessments are undertaken for the amended Proposed Scheme as required under the Management of Health and Safety at Work Regulations 1999, and for monitoring and reviewing the effectiveness of control measures implemented as a result of the risk assessment to ensure their effectiveness.
- 2.59 They will also be responsible for ensuring that accidents and incidents which occur on the site are reported to the relevant enforcing authority as required by the Reporting of Injuries, Disease and Dangerous Occurrences Regulations (RIDDOR) 2013.
- 2.60 The health and safety regime for any work undertaken on the site will follow the guidelines as laid down in the HSE publications, including HSGs 'Managing for Health and Safety' and HSG268 'How to Control Risks at Work'.

Legal Factors

- 2.61 Management of the amended Proposed Scheme must be in line with all legislation relating to health and safety and the environment. A review of the relevant legislation affecting site management is at Appendix B.

Biosecurity

- 2.62 Procedures should be put in place to ensure any imported landscaping materials are free from invasive non-native species.
- 2.63 All topsoil imported onto the site should comply with the British Standard Specification for Topsoil (BS 3882:2015).
- 2.64 Any invasive species works carried out by contractors in line with the Invasive Species Management Plan (report ref: PD-RAM-01-00-REP-EN-3002) should be accompanied by a Risk Assessment Method Statement (RAMS) detailing appropriate biosecurity measures to be observed for the duration of the works and outlining the scope of the works undertaken and any ongoing monitoring/works required to ensure that any contaminated material from the site is disposed of lawfully.

3. MANAGEMENT INTENTIONS AND OPERATIONS

Landscape Elements

3.1 The amended Proposed Scheme will comprise the following landscape elements as shown on the Landscape Masterplan (sheet refs: PD-RAM-01-00-DR-EN-3001 to 3012):

- Existing woodland/trees;
- Existing hedgerows;
- Woodland planting;
- Native tree planting;
- Native hedgerow tree planting;
- Native hedgerow;
- Climbing plants;
- Amenity grassland
- Wildflower meadow;
- Species-rich wildflower grassland;
- Tussocky grassland;
- Woodland fringe meadow;
- Wet grassland;
- Reed planting;
- Existing ponds;
- Wildlife ponds;
- SuDS pond/basin;
- Earth mounding;
- Bat boxes;
- Bird boxes;
- Amphibian hibernacula;
- Footpaths/cycleways;
- Gates;
- Wooden bollards;
- 1.2m high timber post and three rail fence;
- 1.2m high timber post and four rail fence with stockproof mesh; and
- 2.5m high noise barrier.

All Areas: Health and Safety

Management Intentions

3.2 The site will be maintained so that is safe for site users. Any remedial actions required to address health and safety issues will be implemented as soon as possible.

Management Operations

3.3 A health and safety inspection will be undertaken annually to identify any health and safety hazards. Any hazards will be made safe as far as is practicable.

3.4 Results from the health and safety inspection, as well as any remedial measures, will be compiled and presented within the annual report which will be used in the review of the management plan as detailed in Chapter 4.0.

All Areas: Cleansing

Management Intentions

- 3.5 Cleansing will be carried out across the amended Proposed Scheme to retain high amenity value. Cleansing refers to the removal of general litter, debris, detritus, broken glass, building rubble, animal fouling, and timber.

Management Operations

- 3.6 Cleansing of the amended Proposed Scheme will be carried out on a monthly basis and all arisings from cleansing operations shall be removed from site and disposed of in an authorised manner.
- 3.7 Fly-tipping and graffiti may occur from time to time and this will be removed as soon as possible in order to discourage reoccurrences.
- 3.8 The ponds and SuDS are to be included as part of this routine cleanse and includes all floating and submerged debris.

Constraints

- 3.9 Care must be taken during cleansing to check for wildlife, which may be hiding in or under items. Any wildlife found will be returned to suitable cover.
- 3.10 When removing material from within or near to the wildlife ponds and SuDS, care must be taken to check for amphibians, which may be hiding in or under items. Any amphibians, except GCN, found will be returned to suitable cover. It is an offence to handle GCN unless under a specific licence from Natural England.
- 3.11 In the event that soft pliable debris is noted within the water during the period April to August inclusive, these items will be left in situ as they may potentially support amphibian eggs. A full cleanse of the ponds after mid-September will be implemented once eggs are hatched and most larvae are developed.

Soft Landscape Element: Existing Woodland and Trees

Management Intentions

- 3.12 Management of existing woodland and trees will be aimed at providing a structurally diverse habitat for local wildlife and to maintain existing screening to the surrounding landscape.

Management Operations

- 3.13 A tree hazard inspection will be undertaken by trained arboriculturists of trees within or adjacent to areas of public access. The inspection will include checking for damage and disease, and to maintain appropriate height clearances for safe pedestrian access. The tree hazard inspection will be undertaken at minimum every 3 years.
- 3.14 Management of existing trees may include thinning and improvement through coppicing and pruning to be undertaken where recommended under the discretion of a suitably qualified arboriculturist following tree inspections. The following specification is applicable to all arboricultural works:

- 3.15 Trees for coppicing will be cut back to 50mm above ground level. Where a number of stems are coppiced on one plant, cut faces are to slope away from the centre. Care will be taken to ensure that thinning operations do not cause damage to desirable plants, or rutting of the ground in wet conditions.
- 3.16 Where trees are removed they will be cut to a level stump length of maximum 150mm for removal with a stump grinder where required. Care will be taken to ensure that thinning/pruning and stump grinding operations do not cause damage to desirable plants, or rutting of the ground in wet conditions.
- 3.17 Wood under 250mm diameter collected from thinning, brashing, or coppicing will, wherever possible, be chipped and used on site for mulching, either by blowing directly back into planting areas (avoiding waterbodies and watercourses) or by storing on site for future use.
- 3.18 Wood greater than 250mm diameter will be logged and used to create deadwood piles to increase biodiversity. This will include standing dead timber and hollow trunks as well as allowing dead wood to remain on the ground. Deadwood provides habitats for fungi, lichen and invertebrates which in turn provide a source of food for amphibians and birds. Amphibians and small mammals also favour dead wood as a place to seek refuge. Standing deadwood is also an important ecological habitat; however consideration of the proximity to the footpaths and other public access areas will be required. Brushwood, if collected elsewhere on site, will also be stacked within these areas as small habitat piles.

Constraints

- 3.19 An Arboriculturalist must be consulted prior to undertaking any major tree works within the amended Proposed Scheme. Any works with the potential to disturb bats will be subject to a bat survey prior to the works being undertaken. Tree works will be carried out outside of the bird nesting season (between March and August). Should any works be required within the bird nesting season an assessment will be undertaken by a suitably qualified ecologist before any works commence.

Soft Landscape Element: Woodland, Native Tree Planting and Native Hedgerow Tree Planting

Management Intentions

- 3.20 New woodland and tree planting will complement existing woodland and trees and will be managed to provide wildlife corridors when established and screening to the development.

Management Operations

- 3.21 Biodegradable mulch mats will be laid to suppress weed growth, these will be checked monthly to ensure their effectiveness as a weed suppressant and any dominant weeds removed by hand pulling.
- 3.22 Where trees are staked, the stakes and ties will be checked monthly and it is anticipated that they will need adjusting at least twice annually. Spiral guards and shelter guards will be fitted to all trees and shrubs. Any broken or damaged stakes will be replaced and ties re-fixed at a slightly lower position, allowing for growth since planting. Broken spiral guards and shelter guards will be replaced.
- 3.23 Remove stakes and guards as necessary, when the tree is suitably established, approximately in Year 5.

- 3.24 Newly planted trees will require re-firming as required during the first five years.
- 3.25 Young trees will require formative pruning to maintain a desirable shape as well as to maintain health and vigour.
- 3.26 Once trees attain a height of 3m, the maintenance of a weed free base and formative pruning can be discontinued. However, crown pruning is desirable.
- 3.27 Any dead or severely damaged trees will be felled and replaced accordingly in the first five years. Deciduous species will be replaced when dormant in early November to late March. Conifers and evergreen species will be replaced in September/October or April/May.
- 3.28 Watering will be carried out as required to ensure establishment of the landscape scheme. Additional watering may be required during periods of prolonged drought. Particular care will be taken during such periods to ensure sufficient watering is carried out to facilitate healthy growth.

Inspections

- 3.29 An assessment of the condition and structure of trees will be carried out annually to determine the requirements for thinning, beating up, hazard tree works, formative pruning and addressing branch/stem breakages.

Soft Landscape Element: Existing Hedgerows and Native Hedgerows

Management Intentions

- 3.30 The existing and proposed native hedgerows will supplement wildlife corridors and will be maintained as suitable foraging, nesting and commuting routes for local wildlife.

Management Operations

Establishment of Proposed Hedgerows

- 3.31 Sheet mulch mats fixed with pegs will be laid to suppress weed growth and will be checked monthly to ensure their effectiveness as a weed suppressant and any dominant weeds removed by hand pulling.
- 3.32 Spiral guards and shelter guards will be fitted to all trees and shrubs and removed as necessary, when the hedgerow is suitably established, approximately in Year 5.
- 3.33 Management operations during the establishment phase (until branches of adjacent plants fully merge together) will comprise of weed control, watering (if required) and formative 'facing up' of the hedgerow to establish dense branch growth. New planting will be re-firmed as required.
- 3.34 Deciduous species will be replaced when dormant in early November to late March. Conifers and evergreen species will be replaced in September/October or April/May.
- 3.35 Watering will be carried out as required to ensure establishment of the landscape scheme. Additional watering may be required during periods of prolonged drought. Particular care will be taken during such periods to ensure sufficient watering is carried out to facilitate healthy growth.

General

- 3.36 The first cut to newly planted hedgerows is recommended within years 2 to 3 (dependant on growth), and will consist of 'facing up' either side of the hedge. All hedge cuts must be undertaken using appropriate hand or power tools. Mechanical methods of management, where appropriate, will be used in favour of machinery.
- 3.37 The hedge will be cut in an 'A' shape to maintain a wide base for bird nesting and roosting. The 'A' shape profile of the hedge should be maintained annually by cutting the current season's growth.
- 3.38 If possible only one side will be cut annually creating a 2 yearly cycle. Cutting each side alternatively every 2 years rather than annually will create a bushier hedge for wildlife nesting/refuge and allows for berry production in the alternate years.
- 3.39 Hedgerows can be cut between September to February to avoid bird nesting season. The later hedges are cut the bigger the advantage they provide to foraging wildlife from providing berries and fruits.
- 3.40 Additional hedgerow cutting may be required from a health and safety perspective should there be a good growing season (although this is unlikely within the first few years of establishment of new hedgerows, but this will be monitored).

Constraints

- 3.41 Any hedgerow management will be carried out outside of the bird nesting season (between March and August). Should any works be required within the bird nesting season an assessment will be undertaken by a suitably qualified ecologist before any works commence.

Soft Landscape Element: Climbing Plants

Management Intentions

- 3.42 Climbers are proposed to soften the noise barrier and will be maintained to provide screening.

Management Operations

- 3.43 To ensure maximum coverage, the climbers may require ties to train the stems across the screen. Ties will be checked annually to ensure they are not damaging the stems.
- 3.44 Light pruning of the stems using appropriate horticultural techniques will encourage growth and help maximise coverage of the screen.
- 3.45 Any failed climbers will be removed and replaced in September/ October or April/ May.
- 3.46 Light pruning to suit individual species will be carried out in late winter/ early spring.
- 3.47 Watering will be carried out as required to ensure establishment of the landscape scheme. Additional watering may be required during periods of prolonged drought. Particular care will be taken during such periods to ensure sufficient watering is carried out to facilitate healthy growth.

Soft Landscape Element: Amenity Grassland

Management Intentions

- 3.48 Open areas of grassland will be managed as required to maintain a tidy appearance.

Management Operations

- 3.49 During the first five years some areas of amenity grassland may require cultivating and re-seeding.
- 3.50 Grass cutting will be undertaken fortnightly (16 cuts a year), during the growing season. The grass will be kept to a length of 35-50 mm.
- 3.51 Weed control will include removal of dominant weeds such as docks, thistles, nettles, ragwort and willowherb by hand pulling where feasible.

Soft Landscape Element: Wildflower Meadow

Management Intentions

- 3.52 Wildflower meadow is proposed to the verges of the link road to increase ecological diversity and valuable wildlife habitats.
- 3.53 The timing and frequency of grass cuts will be determined by management procedures required to maximise conservation benefits of desirable flora species and maintaining grassland habitats.

Management Operations

- 3.54 In the first growing season the grass will be cut every 6-8 weeks to 150mm with arisings raked off. During the first five years some areas of grassland may require cultivating and re-seeding.
- 3.55 Routine management will include cutting the wildflower sward annually to a height of 150mm (approx.) in late September once seed heads have dropped. In order to avoid disturbance to amphibian terrestrial habitat it is recommended that wildflower grassland areas are cut in sections (e.g. one third of the grassland area) on a weekly rotation to ensure areas of uncut vegetation are retained as refuge for amphibians and small mammals. Arisings should be left in situ for 24 hours to allow flower seed to disperse and then raked off.
- 3.56 The cutting of all grass areas is to be carried out with particular care, using 'strimmers' fitted with guards so as to protect obstacles from damage. The necessary health and safety precautions must be undertaken when cutting grass on steep slopes (e.g. steep banks on the grass swale). All cuttings must be removed from these areas in order to prevent nutrient enrichment and retain the desired species composition, but can be stacked within suitable woodland areas to provide additional habitat. Arisings will be lightly raked off, with great care being taken to avoid disturbance to amphibians or damaging refugia hidden in the grass and removed from site.
- 3.57 Grass cutting will be avoided between mid-March and August to prevent risk of disturbance to nesting birds. Should any works be required within the bird nesting season an assessment will be undertaken by a suitably qualified ecologist before any works commence.
- 3.58 Weed control will include removal of dominant weeds such as docks, thistles, nettles, ragwort and willowherb by hand pulling where feasible.

Constraints

- 3.59 Fertiliser is not to be applied to any of the meadow areas in order to conserve the development of a diverse sward. The species mix may need review after the first complete flowering season to ensure no one species is becoming dominant.

Soft Landscape Element: Wet Grassland and Reed Planting

Management Intentions

- 3.60 Wildflower grassland will be created and maintained within the 10m wide buffer strip, adjacent to the northern bank of St Oswalds Brook as part of the Water Vole Mitigation Strategy (TEP ref: 7066.015).
- 3.61 Following works to the northern banks of St Oswalds Brook the open areas will be seeded with a wet meadow mix and planted with common reed *Phragmites australis* along the shelf at the toe of the bank as part of the Water Vole Mitigation Strategy (TEP ref: 7066.015). The banks will be kept clear of scrub and maintained by strimming in the autumn.
- 3.62 Wet grassland is proposed to SuDS to facilitate the prevention of runoff and silt entering St Oswalds Brook and Cockshot Brook and will also be maintained to provide habitat for amphibians and invertebrates.
- 3.63 The principal management requirement of these areas is to ensure ruderal species and succession of shrub and tree saplings are not permitted to compromise the integrity of the grassland composition or habitat value.

Management Operations

Wet Grassland

- 3.64 In the first growing season the grass will be cut every 6-8 weeks to 150mm with arisings raked off. During the first five years some areas of grassland may require cultivating and re-seeding.
- 3.65 Routine management will include cutting the grass to a height of 150mm. In order to avoid disturbance to terrestrial habitat it is recommended that areas are cut in sections (e.g. one third of the grassland area) on a weekly rotation to ensure areas of uncut vegetation are retained as refuge for amphibians and small mammals.
- 3.66 The cutting of all grass areas is to be carried out using manual methods with particular care, using 'trimmers' fitted with guards so as to protect obstacles from damage. The necessary health and safety precautions must be undertaken when cutting grass on steep slopes (e.g. steep banks on the grass swale). All cuttings must be removed from these areas in order to prevent nutrient enrichment and retain the desired species composition, but can be stacked within suitable woodland areas to provide additional habitat. Arisings will be lightly raked off, with great care being taken to avoid disturbance to amphibians or damaging refugia hidden in the grass.
- 3.67 Weed control will include removal of dominant weeds such as docks, thistles, nettles, ragwort and willowherb by hand pulling where feasible.
- 3.68 The management of reed beds and marginal vegetation should ensure that these areas retain their aesthetic function within the landscape, whilst also enhancing species diversity and valuable wildlife habitats. Maintenance of marginal vegetation will therefore include cutting back dominant species (particularly Reed, Bulrush and Reed Sweet Grass) to prevent them from encroaching upon areas of open water and regular removal of dead vegetation and litter, which leads to reed beds drying out and loss of habitat through natural succession.
- 3.69 Vegetation will be strimmed back (to 150mm). Vegetation will be removed annually to retain between 60% and 30% of open water. Approximately 25-30% of wetland vegetation will be removed each year with arisings removed from the Site.

- 3.70 It is important that cutting does not take place over the entire area, and should therefore be cut in alternate sections on annual rotation leaving uncut areas as refuge for wildlife.

Constraints

- 3.71 In the event dominant or harmful species are identified, a treatment plan will be drawn up; spot treatment or pulling by hand will be the preferred method.
- 3.72 Grass cutting will be avoided between mid-March and August to prevent risk of disturbance to nesting birds. Should any works be required within the bird nesting season an assessment will be undertaken by a suitably qualified ecologist before any works commence.

Soft Landscape Element: Species-rich Wildflower Grassland

Management Intentions

- 3.73 The management of the grassland within the wildlife area will vary to increase habitat and will include areas cut annually and managed as species-rich grassland. Other grassland closer to the native woodland planting will be cut every 2 to 3 years to allow some scrub establishment at the margins.

Management Operations

- 3.74 In the first growing season the grass will be cut every 6-8 weeks to 150mm with arisings raked off.
- 3.75 The grassland will then be cut once a year (or every 2-3 years if in proximity to woodland planting) in late September to a height of 150mm with the arisings raked off and removed to prevent nutrient enrichment.
- 3.76 During the first five years some areas of grassland may require cultivating and re-seeding.
- 3.77 Grass cuts will be undertaken with flail cutters/mowers set to retain vegetation at a height of 150mm in order to prevent any risk to amphibians that may be present within the grasslands. The cuts must not be carried out by cutting the outer perimeter of the grassland areas and working in towards the centre, as this will trap young chicks, leaving them no opportunity for escape. Instead, grass cuts will work from one side of the area to the other, or from the centre of the grassland, out to the perimeters. Grass cuts will ensure the retention of a 3m buffer of uncut grass alongside hedgerows and woodlands with understorey vegetation.
- 3.78 Weed control will include removal of dominant weeds such as docks, thistles, nettles, ragwort and willowherb by hand pulling where feasible.

Constraints

- 3.79 Grass cutting will be avoided between mid-March and August to prevent risk of disturbance to nesting birds. Should any works be required within the bird nesting season an assessment will be undertaken by a suitably qualified ecologist before any works commence.
- 3.80 Grassland areas will not be fertilised in order to conserve the sward diversity.

Soft Landscape Element: Tussocky Grassland

Management Intentions

- 3.81 The wildlife area provides the opportunity to create species-rich grassland, which would provide habitat for invertebrates and create a diverse sward of grasses and wildflowers. This area has the opportunity to be managed by a low intensity grazing regime.
- 3.82 Grassland provides valuable terrestrial habitat for GCN, nectar sources for invertebrates and foraging habitats for badgers.
- 3.83 It would be intended that cattle or sheep be introduced to the area, however if this changes the below operations will need to be reviewed.

Management Operations

- 3.84 A grazing regime would aim to maintain low grazing pressure and rotational grazing, to enable these pastures to remain productive without intervention such as applying artificial fertiliser which would result in a loss of nature conservation interest.
- 3.85 Low stocking rates would encourage a greater variety of plants and allow more plants to flower and set seed while producing a taller sward of benefit to insects and breeding birds. Stocking rates would be kept low; approximately 1 animal per hectare which would maintain invertebrate fauna interest whilst at the same time controlling invasive species. Cattle may be the most suitable animal to graze this area as they "prefer to eat longer grass, using their tongue to pull material into the mouth." Their large mouths mean that they cannot graze as selectively as sheep. Consequently, unpalatable, competitive weeds are often eaten with a mouthful of grass.
- 3.86 The animal hooves would create bare ground. This is valuable to invertebrates as well as allowing plant species to germinate. Grazing provides a cheap and sustainable way of managing the site. Grazing however does require more on-going management than mechanised means, due to animal husbandry requirements. It also raises further considerations in regards to the incidence of dogs and livestock on the site which would need to be carefully monitored and controlled. Opportunities to encourage a local farmer to graze the site but would be responsible for the welfare of the animals would provide the best option.
- 3.87 Resting the pasture from grazing for a period in the spring would be undertaken to allow plants to flower and seed.

Constraints

- 3.88 Cattle are prone to ragwort poisoning and this species will be removed from the area by hand pulling wherever identified.

Soft Landscape Element: Woodland Fringe Meadow

Management Intentions

- 3.89 Woodland fringe meadow will be seeded to ground that has been disturbed following bluebell and woodland ground flora translocation works.
- 3.90 The timing and frequency of grass cuts will be determined by management procedures required to maximise conservation benefits of desirable flora species and maintaining grassland habitats.

Management Operations

- 3.91 In the first growing season the grass will be cut every 6-8 weeks to 150mm with arisings raked off. During the first five years some areas of grassland may require cultivating and re-seeding.
- 3.92 Routine management will include cutting the wildflower sward annually to a height of 150mm (approx.) in late September once seed heads have dropped. In order to avoid disturbance to amphibian terrestrial habitat it is recommended that wildflower grassland areas are cut in sections (e.g. one third of the grassland area) on a weekly rotation to ensure areas of uncut vegetation are retained as refuge for amphibians and small mammals. Arisings should be left in situ for 24 hours to allow flower seed to disperse and then raked off.
- 3.93 The cutting of all grass areas is to be carried out with particular care, using 'strimmers' fitted with guards so as to protect obstacles from damage. The necessary health and safety precautions must be undertaken when cutting grass on steep slopes (e.g. steep banks on the grass swale). All cuttings must be removed from these areas in order to prevent nutrient enrichment and retain the desired species composition, but can be stacked within suitable woodland areas to provide additional habitat. Arisings will be lightly raked off, with great care being taken to avoid disturbance to amphibians or damaging refugia hidden in the grass and removed from site.
- 3.94 Grass cutting will be avoided between mid-March and August to prevent risk of disturbance to nesting birds. Should any works be required within the bird nesting season an assessment will be undertaken by a suitably qualified ecologist before any works commence.
- 3.95 Weed control will include removal of dominant weeds such as docks, thistles, nettles, ragwort and willowherb by hand pulling where feasible.

Constraints

- 3.96 Fertiliser is not to be applied to any of the meadow areas in order to conserve the development of a diverse sward. The species mix may need review after the first complete flowering season to ensure no one species is becoming dominant.

Soft Landscape Element: Existing Ponds and Wildlife Ponds

Management Intentions

- 3.97 Throughout the waterbodies the maintenance of open water and provision of dense stands of emergents, tall herbs and wet grasslands are important to support a diverse and healthy population of small mammals, amphibians, insects and waterfowl. Management should focus primarily on maximising the nature conservation potential of component features.
- 3.98 Ponds should be managed to retain at least 30-60% of the surface area as open water through the cutting back of marginal and emergent vegetation.
- 3.99 Waterbodies will also be managed to avoid health and safety issues.
- 3.100 Vegetation will be regularly managed to ensure the top and bottom of the bank and the water level of the waterbody is clearly visible.

Management Operations

- 3.101 To ensure a diversity of aquatic flora species, macrophytes (e.g. reeds) will be cut back or pulled out if they are starting to become particularly dominant, to allow space for other species to grow and avoid the pond silting up.

- 3.102 Marginal and emergent vegetation control will be implemented during the autumn. Cutting or pulling will be implemented by hand. Arisings will be placed onto protective membrane around the pond edge for 48 hours. The arisings will then be removed to a designated compost heap within the open space and the membrane will be removed from site.
- 3.103 Should water levels within the deepest area of the pond fall below half a metre in two consecutive years, de-silting will be required. These works will be undertaken within the period November to January inclusive. Desilting will be undertaken by a long armed excavator and entry and access to the pond will be limited to one point or section of bank. Ground protection will be utilised to reduce damage to marginal habitats. De-silting will be restricted to the central section of the pond with marginal vegetation retained. The top third of a metre of silt will be temporarily placed around the margins of the excavated pond, onto protective membrane, to allow the invertebrate assemblage to repopulate the pond. After a period of 48hrs, the silt and the protective membrane will be removed from site.
- 3.104 Pond will be regularly inspected. Ponds will be kept free from litter and debris which may have a detrimental effect on biodiversity and affect public health and safety.
- 3.105 No fertilisers or pesticides will be used within the wet grassland or within such proximity to that drift will affect the wet grassland or pond.
- 3.106 The new wildlife ponds will be visually inspected on a monthly basis and any debris or rubbish will be removed. However, in the event that soft pliable debris is noted within the water during the period April to August inclusive, these items will be left in situ as they may potentially support amphibian eggs. A full cleanse after mid-September will be implemented once eggs are hatched and most larvae are developed. Water quality will be visually monitored during these inspections for any signs of pollutants (e.g. scum, excessive algal growth and discolouration) and dominant species. Remedial actions will be implemented accordingly. The advice of an ecologist will be sought if required, if remedial actions may significantly affect the ecology of the pond.
- 3.107 In the event significant works are required to either pond more than one year after their completion (such as draining to fix levels or desilting), a licensed newt ecologist will be appointed to carry out an amphibian survey prior to the works.
- 3.108 In the event monitoring identifies the presence of fish as a concern to the viability of the pond (specifically its suitability for maintaining the GCN population), fish removal will be implemented in accordance with current best practice. At the time writing, guidance set out by Amphibian and Reptile Conservation is the most relevant (Fish Control Methods for Great Crested Newt Conservation, September 2010). The first option for fish removal will include draining down ponds in winter and leaving them to dry to remove fish. This may be combined with trapping or electrofishing, during the dormant period during late autumn or early spring. It should be noted that the Environment Agency no longer issue consents for Rotenone application for this type of activity.

Constraints

- 3.109 In the event dominant or harmful species are identified, a treatment plan will be drawn up, with hand pulling as the preferred method.

Inspection

- 3.110 An annual inspection of waterbodies will be undertaken to assess bank stability, presence of fish, water quality, coverage of aquatic/marginal vegetation, drainage and depths.

Soft Landscape Element: SuDS Pond/Basin

Management Intentions

- 3.111 SuDS are water basins designed to temporarily fill during times of high rainfall or flooding and will be seeded with a wet wildflower meadow grass mix and maintained to provide habitat for amphibians and other invertebrates.

Management Operations

- 3.112 25-30% of wetland vegetation will be removed annually with arisings removed from the site. Any scrub which develops on the bankside will be removed annually with arisings removed from the site.
- 3.113 Within the first five years of management it is unlikely that there will need to be any SuDS silt clearance works. Silt removal will only be carried out in limited areas at any one time of about 25-30% of the ponds areas every five years.
- 3.114 Any material that is removed from the SuDS will be left on the bank for approximately a week, to allow for any invertebrates or amphibians which may be in the silt to crawl back to their habitat before the material is disposed of or used sustainably elsewhere on site.

Constraints

- 3.115 In the event dominant or harmful species are identified, a treatment plan will be drawn up, with hand pulling as the preferred method.

Inspection

- 3.116 A monthly inspection will be undertaken of the control structure to and from the SuDS.
- 3.117 An annual inspection of the SuDS will be undertaken to assess bank stability, water quality, coverage of aquatic/marginal vegetation, drainage and depths.

Ecological Feature: Earth Mounding

Management Intentions

- 3.118 Ongoing management of the soil mounds within the wildlife and attenuation areas will be required to ensure they are kept bare to be viable habitat for invertebrates.

Management Operations

- 3.119 In the first year the mound will be cut 2 - 3 times depending on vegetation growth.
- 3.120 To maintain bare ground on the southern slopes the mounds will be scarified using hand tools on an annual basis in the autumn between September and November.

Ecological Feature: Bat Boxes

Management Intentions

- 3.121 Bat boxes will be installed to existing trees to maintain bat populations in the locality and will be maintained in a viable condition to provide roost habitat throughout the year.

Management Operations

- 3.122 Bat boxes will be of types that are generally maintenance free. However, bat boxes will be inspected visually once a year from the ground to ensure they remain in viable condition.
- 3.123 Where any box is found to be misplaced, it will be re-sited or resituated as appropriate. Where any box is found to be damaged, it will be replaced a similar model prior to the next March.
- 3.124 Bat boxes will be inspected annually from the ground to ensure their correct placement and viable condition. The bat boxes will be inspected every two years by a licensed bat ecologist. This will be done in situ without adjustment to position or orientation of the box by removal of the inspection panels. In the event that the box is occupied by wasp or hornets, the box will either be relocated to a safe place away from regularly accessed public places or be removed from site, as desired, and a replacement box will be installed.

Ecological Feature: Bird Boxes

Management Intentions

- 3.125 Bird nest boxes will be maintained in a viable condition to provide nest and roost habitat throughout the year.

Management Operations

- 3.126 Bird nest boxes will be inspected annually to ensure they remain in viable condition. Where any box is found to be damaged, it will be replaced by a similar model prior to the next March.
- 3.127 Bird boxes will be inspected in November and cleaned of any residual nest material and debris. This will be done in situ without adjustment to position or orientation of the box by removal of the inspection panels. In the event the nest box is occupied (by bird, bat or other animal), the box will be closed without cleaning and cleaning will be delayed until the following year. In the event that a bat is occupying the nest box, the advice of a licensed bat ecologist will be sought. In the event that the box is occupied by wasp or hornets, the box will be removed to a safe place away from regularly accessed public places and a replacement box will be installed.

Ecological Feature: Amphibian Hibernacula

Management Intentions

- 3.128 Amphibian hibernacula are to be maintained in a viable condition so as to function to provide shelter and winter refuge to amphibians.
- 3.129 Amphibian hibernacula are to be set on high ground away from potential flooding.

Management Operations

- 3.130 Amphibian hibernacula will be inspected monthly to ensure they are in a viable condition.
- 3.131 Access points into the features will be maintained free of blockages (debris and silt, for example).
- 3.132 Grass or shrub atop the features and within 0.5m of the features will be left uncut to avoid disturbance to the feature.

- 3.133 In the event the condition of the feature deteriorates to a point that maintenance cannot ensure its viability, a new feature will be recreated nearby in line with the original design specifications on the Ecology details Sheet 1 (sheet ref: PD-RAM-01-00-DR-EN-3074).
- 3.134 The existing feature will be maintained in situ in its existing condition; if this is not desirable, an ecologist (to ensure competency) will be appointed by the Contractor to supervise the dismantling of the non-functioning feature.
- 3.135 Dead wood arising from tree or hedgerow maintenance (where this cannot be left in situ) will be stacked in piles within the species-rich wildflower grassland or shrub surrounding or atop the amphibian hibernacula to supplement their function.

Hard Landscape Element: Gates

Management Intentions

- 3.136 Maintenance access gates will be installed and maintained to retain their functionality.

Management Operations

- 3.137 Gates will be inspected during monthly site inspections to ensure they are functioning correctly and that the gate is not closing too quickly/slowly. Any repairs required to ensure the gates functions safely must implemented immediately.
- 3.138 Gates will be re-painted or re-stained/treated as required to retain their aesthetic qualities and will be replaced as required depending on their condition.

Hard Landscape Element: Fencing, Noise Barriers and Wooden Bollards

Management Intentions

- 3.139 Fencing, barriers and wooden bollards will be maintained for their functionality. Routine inspections will ensure that any damaged fencing, barriers and wooden bollards are repaired or replaced as quickly as possible to prevent a risk to health and safety.

Management Operations

- 3.140 Fencing, barriers and wooden bollards will be inspected during the monthly site inspection and any repairs required will be carried out promptly.
- 3.141 The fencing, barriers and wooden bollards will be replaced as required depending on its condition.

4. MONITORING AND REVIEW

Monitoring

- 4.1 This chapter describes how the amended Proposed Scheme will be monitored and reviewed in perpetuity.
- 4.2 Simple monitoring reports against key measures will be produced by SHMBC on a quarterly basis, together with financial information.
- 4.3 The key measures for each element will enable the schemes success to be measured and managed appropriately to meet the long term management objectives. These key measures are:

Table 1: Key measures for landscape elements monitoring

Feature Type	Key Measure
All Areas	
Landscape Scheme Establishment	Is the scheme establishing well and attractive to the public and wildlife overall?
Cleansing	Is the site in a clean and tidy condition?
Public Access	Is public access to the site maintained?
Health and Safety	Are there any health and safety hazards / deficiencies which require rectification?
Legal Obligations and Constraints	Does the scheme comply with the relevant environmental and health and safety legislation (as set out in Appendix B of this Plan)?
Retained Features	
Woodland and Trees	Carry out an inspection to note any deficiencies. Concerns about risks to public health and safety and tree health, should be reported and specialist input sought as necessary. Review arboriculture assessment for recommendations on thinning and tree works.
Hedgerows	Carry out an inspection to note any gaps and re-plant with suitable native species.
Ponds	Carry out an inspection to note any scrub encroachment within 5m of the ponds, which should be removed. Carry out an inspection to note any planting failures and re-plant with suitable native species. Review assessments following hydrologist inspections and carry out recommended works.
Proposed Features	

Feature Type	Key Measure
Woodland Planting, Native Tree Planting, and Native Hedgerow Tree Planting	<p>Stakes and ties to be inspected and newly planted trees re-firmed and kept weed free.</p> <p>Any dead or dying trees should be replaced as specified in the original planting plan.</p> <p>Review arboriculture assessment for recommendations on thinning and tree works.</p>
Native Hedgerows	<p>Inspection of the general establishment of the hedges until the branches of adjacent plants fully merge together to establish dense branch growth.</p> <p>Any dead or dying plants should be replaced as specified in the original planting plan.</p> <p>Inspect planting and prune as required, or prune straight away if presents a hazard.</p>
Climbing Plants	<p>Any dead or dying plants should be replaced as specified in the original planting plan.</p> <p>Check condition of ties and adjust as required.</p> <p>Inspect planting and prune as required to maintain aesthetic appearance allowing the plants to fully merge together, avoiding large gaps in planting due to over pruning.</p>
Amenity Grassland	<p>Inspection of the grass to ensure a well maintained weed free appearance. Re-seed as required.</p>
Wildflower Meadow	<p>Inspection of the grass to ensure botanical diversity, weeds kept to a minimum, and no scrub encroachment. Re-seed as required.</p>
Wet Grassland	<p>As above.</p>
Reed Planting	<p>Inspection ensure any tree or shrub saplings are removed.</p> <p>Carry out an inspection to note extent of encroachment on to St Oswalds Brook and remove to ensure 30-60% open water.</p>
Species-rich Wildflower Grassland	<p>Inspection of the grass to ensure botanical diversity, weeds kept to a minimum, and no scrub encroachment. Re-seed as required.</p>
Tussocky Grassland	<p>If taken forward monitor that the grazing regime is still fit for purpose and amend as necessary to maximise biodiversity potential across the grassland.</p>
Woodland Fringe Meadow	<p>Inspection of the grass to ensure botanical diversity, weeds kept to a minimum, and no scrub encroachment. Re-seed as required.</p>
Wildlife Ponds	<p>Inspection to the banks and ensure any tree or shrub saplings within 5m of the pond are removed.</p> <p>Carry out inspection of control structure and carry out minor repairs as required.</p> <p>Review assessments following hydrologist inspections and carry out recommended works.</p>

Feature Type	Key Measure
SuDS Pond/Basin	Inspection to the banks and ensure any tree or shrub saplings within 5m are removed. Carry out inspection of control structure and carry out minor repairs as required. Review assessments following hydrologist inspections and carry out recommended works.
Earth Mounding	Carry out inspection to ensure they are kept bare providing viable habitat for invertebrates.
Bat Boxes	Ensure bat boxes are in situ and report any missing or damaged boxes to an ecologist.
Bird Boxes	As above.
Amphibian Hibernacula	Carry out inspection to check condition and remove blockages from access points.
Gates	Carry out an inspection to note any damage and carry out repairs/ replacement.
Fencing, Noise Barriers and Wooden Bollards	Carry out an inspection to note any damage and carry out repairs/ replacement.

4.4 An annual report will be produced by SHMBC, summarising the management of the amended Proposed Scheme over the last year and the measures achieved.

- An annual site meeting and review;
- Quarterly (initially) formal site inspections; and
- Ad hoc unannounced inspections: to be made as frequently as possible to review condition of entrances, the boundaries of the amended Proposed Scheme etc.

4.5 With respect to monitoring habitat creation, an annual habitat walkover survey by a suitably qualified ecologist will be carried out in Years 1 to 5 to ensure that habitats created are still viable for their intended purpose and to inform future management policies.

Review

4.6 The Management Plan will be reviewed on an annual basis by SHMBC or a consultant appointed by SHMBC to ensure that the plan is meeting the original management aims and objectives and responding to the developing needs of the amended Proposed Scheme.

4.7 Following the end of the initial five year period of this management programme, the Management Plan will be re-assessed and updated by a suitably qualified landscape/ecology professional. This can be facilitated by undertaking site surveys as detailed above. These will identify the need for additional operations and inform future management decisions in relation to continual improvement of biodiversity and the amenity value of the landscape as a whole.

APPENDIX A: LANDSCAPE MAINTENANCE SCHEDULE AND COSTINGS

Parkside Link Road
Landscape Management Costs for 30 Years
Version: 2.0
Date: 07.03.2019
Total site application boundary - 37.78 ha

Key
P - Permanent
T - Temporary
C - Cyclical or Capital Replacement

Measures based on Landscape Masterplan (sheet refs: PD-RAM-01-00-DR-EN-3001 to 3012) and Planting Schedules (PD-RAM-01-00-DR-EN-3073) and assumptions where indicated.

Activity	Temp/Perm/Cycl	Measure	Unit	Years applicable	Freq. for P (X. no. per annum)	Freq. for C (every X no. years)	Unit Rate	Year 1	Year 2	Year 3	Year 4	Year 5	Total T Costs for 1-5	Total P Costs per annum (Years 0-5)	Total P Costs per annum (Years 5 - 30)	Total C Costs for 30 years	Notes
INSPECTIONS, SURVEYS AND CLEANSING																	
Inspections and Surveys																	
Undertake a formal inspection to review hazards identified by original Site Risk Assessment	P	1	item	All years	1		425							£425.00	£425.00		
Monthly site inspections. Including inspection of footpaths and removing overhanging vegetation, leaf litter and trip hazards, control structures to and from SuDS features.	P	1	item	All years	12		175.00							£2,100.00	£2,100.00		
Annual habitat walkover survey by suitably qualified ecologist.	T	1	item	Years 1 to 5			425.00	£425.00	£425.00	£425.00	£425.00	£425.00	£2,125.00				
Tree Hazard and Condition Survey to be carried out to mature trees by suitably qualified arboriculturalists every 3 years.	C	1	item	Every 3 years		3	425									£4,250.00	
Ad-hoc works as recommended by the Tree Hazard and Condition Survey.	C	1	item	All years		3	700									£7,000.00	Includes nominal value for tree replacement.
Annual inspection of drainage features by a suitably qualified drainage consultant.	P	1	item	All years	1		425							£425.00	£425.00		
Silt removal as necessary in November to 1/3 of waterbody to maintain areas of open water.	C	1	item	As required		5	1100.00									£6,600.00	Allows for de-silting works every 5 years to one waterbody.
Site Cleansing																	
Monthly cleanse- including litter and debris from soft and hard landscaping, waterbodies and watercourses, and site furniture.	P	298,085	m²	All years	12		0.0014							£5,007.83	£5,007.83		
Removal of fly-tipping where necessary, as required.	P	1	item	All years	1		150.00							£150.00	£150.00		
Graffiti removal by steam cleaning where necessary, as required.	P	1	item	As required	1		250.00							£250.00	£250.00		Nominal sum for Graffiti removal
Tree, Shrub and Climbing Planting																	
		32,867	nr														
Check stakes, ties, fencing, guards, canes and mulch mats monthly, adjusting twice annually. Refirm planting as required (nominal value included).	T	32,867	nr	Years 1 to 5													Included in <i>Monthly Site Inspections</i> .
Replacing any damaged or missing stakes, ties, fencing, guards, canes and mulch mats (nominal value included)- assume 10%.	T	3,287	nr	Years 1 to 5			1.00	£3,286.70	£3,286.70	£3,286.70	£3,286.70	£3,286.70	£16,433.50				
Remove stakes, ties, fencing, guards and canes.	T	32,867	nr	Year 5			0.71					£23,335.57	£23,335.57				
Weed control - measure allows for 5% of area.	P	1,643	m²	All years	1		0.10	£164.34	£164.34	£164.34	£164.34	£164.34	£821.68				
Watering																	
Watering of new planting (average 4 times a year) to ensure establishment.	T	5,166	m²	Years 1 to 3			0.05	£258.30	£258.30	£258.30			£774.90				Does not include woodland planting. Trees will acclimatise to site conditions
SOFT LANDSCAPE ELEMENTS																	
		10,525	m²														
Existing Woodland/Trees																	
Ad-hoc works as recommended by the Tree Hazard and Condition Survey.	P	1	item	All years													Included in <i>Inspections and Surveys</i> .
		50,728	m²	12,589	nr												
Replacement of areas of failed tree planting as required to maintain visual amenity- measure allows for 5%.	T	629	nr	Years 1 to 5			0.18	£113.30	£113.30	£113.30	£113.30	£113.30	£566.51				
Formative pruning to maintain health and vigour - measure allows for 5%.	P	629	nr	Years 5+	1		5.35								£3,367.56		
Ad-hoc works as recommended by the Tree Hazard and Condition Survey.	C	1	item	Every 5 Years													Included in <i>Inspections and Surveys</i> .
Native Tree Planting and Native Hedgerow Tree Planting																	
		302	nr														
Replacement of areas of failed tree planting as required to maintain visual amenity- measure allows for 5% of area.	T	15	nr	Years 1 to 5			17.18	£259.42	£259.42	£259.42	£259.42	£259.42	£1,297.09				
Formative pruning to maintain health and vigour - measure allows for 10%.	P	30	nr	Years 5+	1		5.35								£161.57		
Ad-hoc works as recommended by the Tree Hazard and Condition Survey.	C	1	item	Every 5 Years													Included in <i>Inspections and Surveys</i> .
Existing Hedgerows																	
		144.3	lin m														
Cut one side and top.	P	144	lin m	All years	1		0.0035							£0.51	£0.51		
Native Hedgerow Planting																	
		4,690	lin m	19,656	nr												
Replacement of areas of failed shrub planting as required to maintain visual amenity- measure allows for 5% of area.	T	983	nr	Years 1 to 5			0.18	£176.90	£176.90	£176.90	£176.90	£176.90	£884.52				
Face up to one side of hedges.	P	4,690	lin m	Years 5+	1		0.0035								£16.42		
Climbing Plants																	
		476	lin m	320	nr												
Replacement of areas of failed planting as required to maintain visual amenity- measure allows for 5%.	T	16	nr	Years 1 to 5			18.27	£292.32	£292.32	£292.32	£292.32	£292.32	£1,461.60				
Lightly prune. Time of year for pruning to be determined by the species.	P	476	lin m	All years	1		0.336							£159.94	£159.94		
Amenity Grassland																	
		17,652	m²														
Cultivate and re-seed- measure allows for 2.5% of area.	T	441	m²	Years 1 to 5			1.00	£441.30	£441.30	£441.30	£441.30	£441.30	£2,206.50				
Cut (35mm) fortnightly during the growing season and remove arisings from the site.	P	17,652	m²	All years	18		0.014							£4,448.30	£4,448.30		
Weed control - measure allows for 5% of area.	P	883	m²	All years	1		0.10							£88.26	£88.26		
Wildflower Meadow																	
		134,047	m²														
Cut (150mm) 3 times in first year and remove arisings from the site.	T	134,047	m²	Year 1			0.0032	£422.25					£422.25				
Cultivate and re-seed as required- measure allows for 2.5% of area.	T	3,351	m²	Years 1 to 5			2.00	£6,702.35	£6,702.35	£6,702.35	£6,702.35	£6,702.35	£33,511.75				
Cut (150mm) once a year and remove the arisings from the Site. Cut in 1/3 sections on a weekly rotation.	P	134,047	m²	Years 2+	1		0.0011							£140.75	£140.75		
Weed control - measure allows for 5% of area.	P	6,702	m²	All years	1		0.10							£670.24	£670.24		
Wet Grassland																	
		18,860	m²														
Cut (150mm) 3 times in first year and remove arisings from the site.	T	18,860	m²	Year 1			0.0378	£712.91					£712.91				
Cultivate and re-seed as required- measure allows for 2.5% of area.	T	472	m²	Years 1 to 5			2.00	£943.00	£943.00	£943.00	£943.00	£943.00	£4,715.00				
Cut (150mm) once a year and remove the arisings from the Site.	P	18,860	m²	Years 2+	1		0.0011							£19.80	£19.80		

Source
Assumed day rate for consultant to inspect + £50 expenses
LT Maintenance rates for 2015 - 4 weekly inspections - rate per annum divided by 12 months
Assumed day rate for consultant to inspect + £50 expenses
Assumed day rate for consultant to inspect + £50 expenses
Assumed day rate for contractor (@£200pp/per day) + £300 (@£100 per tree replacement)
Assumed day rate for consultant to inspect + £50 expenses
Assumed two day rate contractor (@£200pp/per day) + £300 machine hire
LT Maintenance rates for 2015 - monthly cleanse
Assumed day rate for contractor (@£200pp/per day) + £50 expenses
Homes England contracts database.
SPON's 2018 - adjusting existing tree ties
Nominal rate
SPON's 2018 - taking up single/double tree ties; removing and disposing
Nominal rate
Nominal rate.
SPON's 2018 - whip planting
LT Maintenance rates for 2015 - trees - crown pruning per established specimen tree in public area
SPON's 2018 - Trees; planting labours only; root balled trees including backfilling; 12-14cm girth
LT Maintenance rates for 2015 - trees - crown pruning per established specimen tree in public area
LT Maintenance rates for 2015 - hedge flay
SPON's 2018 - whip planting
LT Maintenance rates for 2015 - hedge flay
SPON's 2018 - shrub planting; 3L containerised plants in cultivated ground (cultivating not included); 500mm centres; 4.5 plants/m²
LT Maintenance rates for 2015 - Shrubs amenity ornamental - assume herbaceous
Nominal rate
LT Maintenance rates for 2015 - grass municipal verge - assume obstacles, slopes, awkward access etc.
Nominal rate
LT Maintenance rates for 2015 - grass meadow 3 cut per annum
Nominal rate
LT Maintenance rates for 2015 - grass meadow 1 cut per annum
Nominal rate
LT Maintenance rates for 2015 - grass meadow 3 cut per annum
Nominal rate
LT Maintenance rates for 2015 - grass meadow 1 cut per annum

Weed control - measure allows for 5% of area.	P	943	m²	All years	1		0.10							£94.30	£94.30		
Species-rich Wildflower Grassland		37,897	m²														
Cut (150mm) every 6-8 weeks during the growing season and remove arising from site.	T	37,897	m²	Year 1			0.13125	£4,973.98						£4,973.98			
Cultivate and re-seed as required- measure allows for 2.5% of area.	T	947	m²	Years 1 to 5			2.00	£1,894.85	£1,894.85	£1,894.85	£1,894.85	£1,894.85	£9,474.25				
Cut (150mm) once a year and remove arising from site.	P	37,897	m²	Years 2+	1		0.0126							£477.50	£477.50		
Cut (150mm) every 2 or 3 years in areas close to native woodland planting and remove arising from site.	C	37,897	m²	Years 2+		2	0.0063									£477.50	
Weed control - measure allows for 5% of area.	P	1,895	m²	All years	1		0.10							£189.49	£189.49		
Tussocky Grassland		21,260	m²														
Carry out approved grazing regime.	P	21,260	m²	All years													No costs allowed for.
Woodland Fringe Meadow		237	m²														
Cut (150mm) 3 times in first year and remove arisings from the site.	T	237	m²	Year 1			0.0032	£0.75						£0.75			
Cultivate and re-seed as required- measure allows for 2.5% of area.	T	6	m²	Years 1 to 5			2.00	£11.85	£11.85	£11.85	£11.85	£11.85	£59.25				
Cut (150mm) once a year and remove the arisings from the Site. Cut in 1/3 sections on a weekly rotation.	P	237	m²	Years 2+	1		0.0011							£0.25	£0.25		
Weed control - measure allows for 5% of area.	P	12	m²	All years	1		0.10							£1.19	£1.19		
AQUATIC LANDSCAPE ELEMENTS																	
Reed Planting (Assumed 10% of Wetland Meadow around Existing Ponds and Wildlife Ponds)		35.5	lin m														
1x yearly strim (150mm) with arisings removed from the Site. Strim sections on annual rotation.	P	35.5	lin m	All years	1		0.336							£11.93	£11.93		
Remove 25-30% of vegetation. Remove arisings from the Site.	P	35.5	lin m	All years	1		0.07							£2.49	£2.49		
1x yearly cut to tree and shrub saplings encroaching into reedbeds and stump treat.	P	1	item	As required	1												Included in above.
Existing Ponds and Wildlife Ponds		1,343	m²														
1x yearly strim (150mm) to 1/3 of bankside vegetation with arisings removed from site. Strim sections on annual rotation.	P	1,343	m²	All years	1		0.336							£451.25	£451.25		
Removal of marginal/emergent vegetation in autumn to maintain 30-60% of open water.	P	355	lin m	All years	1		0.07							£24.85	£24.85		
Reduction of macrophytes where becoming too dominant.	P	1	item	As required	1												Included in above.
Removal of any fish.	P	1	item	As required	1												Included in Site Cleansing.
Inspect the pond annually to assess bank stability, water quality, coverage of aquatic/marginal vegetation, drainage and depths.	P	1	item	All years	1												Included in Inspections and Surveys.
SuDS Pond/Basin		5,536	m²														
Cut grass to 150mm monthly and remove arisings from site.	P	5,536	m²	All years	12												Included in Wet Grassland.
1x yearly cut to tree and shrub saplings encroaching the swale/filter strips and stump treat.	P	5,536	m²	All years	1												Included in Wet Grassland.
Inspect the features annually to assess bank stability, water quality, coverage of aquatic/marginal vegetation and drainage.	P	1	item	All years	1												Included in Inspections and Surveys.
Remove silt from the base of SuDS.	C	1	item	Every 5 years		1											Included in Inspections and Surveys.
ECOLOGICAL FEATURES																	
Earth Mounding		2647	m²														
Cut 2-3 times in first year.	T	2647	m²	Year 1			0.0252	£66.70						£66.70			
Annual scarification to southern slopes by hand (assume 50%).	P	1324	m²	Years 2+	1		0.0572							£75.70	£75.70		
Bat Boxes		6	nr														
Annual visual inspection from the ground to check condition.	P	1	item	All years	1		425							£425.00	£425.00		
Internal inspection of bat boxes every two years by a licensed ecologist.	P	1	item	Every 2 years		2	212.5									£3,187.50	
Replacement, as required, before March.	P	1	nr	As required	1		31.99							£31.99	£31.99		Product cost only.
Bird Boxes		20	nr														
Annual inspection to check condition.	P	1	item	All years	1												To be carried out at same time as Bat Box Inspections.
Removal of nesting debris by hand and disposal.	P	1	item	All years	1												Included in Annual Inspection above.
Replacement, as required, before March.	P	1	nr	As required	1		26.95							£26.95	£26.95		Product cost only.
Amphibian Hibernacula		6	nr														
Annual inspection to check condition and clear any blockages from access points.	P	1	item	All years	1												To be carried out at same time as Bat Box Inspections.
Repairs and/or replacement as required under supervision of a licenced ecologist.	P	1	item	As required	1		312.50							£312.50	£312.50		
HARD LANDSCAPING ELEMENTS																	
Wooden Bollards		3	nr														
Repairs as required.	P	1	item	As required	1		415.25							£415.25	£415.25		
Gates		22	nr														
Re-painting or re-staining/treating gates.	P	1	item	As required	1		78.75							£78.75	£78.75		
Fencing and Barriers		7,482	lin m														
Repairs to fencing and barriers - measure allows for 5% of length.	P	374.10	lin m	As required	1		12.60							£4,713.66	£4,713.66		
ANNUAL TOTAL:								£21,146.22	£14,969.63	£14,969.63	£14,711.33	£38,046.90	£103,843.70	£21,218.66	£24,764.20	£21,515.00	

Temporary Costs			
Total Temporary Costs for first 5 Years		£103,843.70	
Permanent and Cyclical Costs			
Total Permanent Costs Per Annum (Years 0-5)		£21,218.66	
Total Permanent Costs Per Annum (Years 5-30)			£24,764.20
Average Cyclical/Capital Replacement Costs Per Annum			£21,515.00

Nominal rate
LT Maintenance rates for 2015 - grass amenity - 18 cuts, arisings dispersed
Nominal rate
LT Maintenance rates for 2015 - grass meadow 1 cut per annum
LT Maintenance rates - grass meadow 1 cut - baled and removed
Nominal rate
LT Maintenance rates for 2015 - grass meadow 3 cut per annum
Nominal rate
LT Maintenance rates for 2015 - grass meadow 1 cut per annum
Nominal rate
LT Maintenance rates for 2015 - grass municipal verge - assume obstacles, slopes, awkward access etc.
LT Maintenance rates for 2015 - vegetation clearance - pond edge vegetation clearing
LT Maintenance rates for 2015 - grass municipal verge - assume obstacles, slopes, awkward access etc.
LT Maintenance rates for 2015 - vegetation clearance - pond edge vegetation clearing
LT Maintenance rates for 2015 - grass meadow 2 cut, baled and removed
LT Maintenance rates for 2015 - strimming once per year
Assumed day rate for consultant to inspect + £50 expenses
Assumed day rate for consultant to inspect + £50 expenses
https://www.nhbs.com/2f-schwegler-bat-box-general-purpose
Assumed day rate for consultant to inspect + £50 expenses
https://www.nhbs.com/1b-schwegler-nest-box
Assumed day rate for contractor (@£200pp/per day) + Assumed day rate for consultant to inspect
SPON's 2018 - timber bollards; 250mm dia. X 1500mm long; Woodscape Ltd
LT Maintenance rates for 2015 - timber vehicle gate repair per annum
LT Maintenance rates for 2015 - fencing post and three rail annual maintenance price to repair per lin m

APPENDIX B: SUMMARY OF RELEVANT LEGISLATION

Summary of Relevant Legislation

The following legal obligations, among others must be considered in carrying out any management operations:

Legislation	Obligations
Health and Safety Legislation	
The Health and Safety at Work Act 1974	All operations carried out on the Site must only be undertaken by trained personnel, using methods and equipment approved by the Health and Safety Executive (HSE).
Occupiers Liability Act 1984	<p>Management organisation must ensure that every reasonable care is taken to remove any risks to both legitimate visitors and to any trespassers. In compliance it will be necessary:</p> <p>To make sure that all footpaths and any other structures are safe;</p> <p>To remove any hazardous objects; and</p> <p>To conduct an annual safety audit in order to identify any further hazards.</p>
Environmental Legislation	
Conservation of Habitats and Species Regulations (as amended) (2017)	The Habitat Regulations assign a greater level of protection to a variety of native species of animals and plants listed, which are known as European Protected Species (EPS).
Wildlife and Countryside Act 1981	There is an obligation to comply with legislation for UK species protected (including amphibians, reptiles and bats) under this Act.
Environmental Protection Act 1990	There is an obligation to keep the Site free from litter and refuse.
Countryside and Rights of Way Act 2000	Imposes a new right of access on foot to registered common land and other areas of 'open countryside' which under certain circumstances allows access without being confined to footpaths.