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environmental consultants

Construction Environmental Management Plan (Ecology)

Houghton Main TRRC

for:

Peel Environmental Limited

CRM.066.006.EC.R.001

'Experience and expertise working in union'

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Construction Environmental Management Plan (Ecology)

Project:	Houghton Main TRRC
For:	Peel Environmental Limited
Status:	Revision A
Date:	12th December 2017
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Contents

Tables and Figures

Drawings and Appendices

1 Introduction

1.1 Commission

1.1.1 In August 2017, Enzygo Ltd was commissioned by Peel Environmental Limited to produce a Construction Environmental Management Plan (CEMP) covering Ecology, for land at Houghton Main TRRC, off Houghton Main Colliery Roundabout, Park Spring Road S72 7LG (central grid reference: SE 41693 06444), located within the Barnsley Metropolitan Borough Council planning authority.

1.1.2 The proposed works have been granted planning permission (2015/0137) and will involve the construction of a Timber Resource Recovery Centre (TRRC) with associated buildings including sub-station, weighbridge and parking facilities. Refer to Appendix A for proposed site layout.

1.2 Aims and Objectives

1.2.1 This report seeks to satisfy Condition 23 of Planning Application 2015/0137, granted in June 2015, which stipulates that:

"*Prior to the commencement of development full details of the mitigation measures identified in the Phase 2 Habitat Survey, including a timetable for their implementation, shall be submitted to and approved in writing by the Local Planning Authority. The development shall be implemented in accordance with the approved details*

Reason: To conserve and enhance biodiversity in accordance with the Core Strategy Policy CSP 36".

1.2.2 The aim of the CEMP is to provide documentation in accordance with BS42020:2013: Biodiversity – Code of Practice for Planning and Development (BSI, 2013), and to provide clear information for contractors to follow when undertaking construction works on site, whilst providing details of ecological enhancements which are to be incorporated. The CEMP includes:

- Risk assessment of potentially damaging construction-type activities;
- Identification of 'biodiversity protection zones' and areas where invasive species have been identified;
- Inclusion of or reference to details for implementation of method statements required to achieve specific biodiversity outcomes, and particularly mitigation/enhancement measures;
- Practical measures (both physical measures and sensitive working practices) to avoid or mitigate impacts during construction, and those to enhance the site;
- The location and timing of sensitive works to avoid harm to biodiversity features;
- The times during construction when specialist ecologists need to be present on site to oversee works;
- Responsible persons and lines of communication;
- The role and responsibilities on site of an Ecological Clerk of Works (ECoW) or similarly competent person responsible for managing biodiversity issues on site; and
- Use of protective fences, exclusion barriers and warning signs.

1.2.3 In regard to enhancement, the CEMP will also include the following:

- Purpose and conservation objectives for the proposed works;
- Review of site potential and constraints;
- Detailed design and/or working methods to achieve stated objectives;
- Extent and location/area of proposed works on appropriate scale maps and plans;
- Type and source of materials to be used where appropriate (i.e. native species of local provenance);
- Timetable for implementation demonstrating that works are aligned with the proposed phasing of development;
- Persons responsible for implementing the works;
- Details of initial aftercare and long-term maintenance;
- Details for monitoring and remedial measures; and
- Details for disposal of any wastes arising from works.

1.2.4 This report remains valid for 2 years from the date of publication, or until conditions across the site should substantially alter.

1.3 Background

1.3.1 The site was previously used for open cast mining up to 2001. The land was reclaimed and compacted to provide a platform suitable for industrial development. Since the cessation of works a valid re-use of the site has been sought. A number of planning permissions were approved, prior to the current application, including the erection of 19 industrial units and associated external works (2015/0137, 2011/1443, 2008/1426). The 19 industrial unit consent has ben implemented.

1.3.2 The following ecological reports have been referred to:

- Environment Statement (Enzygo, 2015);
- Phase II Habitat Surveys (Enzygo, 2014); and
- Preliminary Ecological Appraisal (Enzygo, 2014).

1.4 Site Context

1.4.1 The approximately 3.5Ha site is located south of Grimethorpe, South Yorkshire, and at the far south-eastern point of the former Houghton Colliery. It is comprised of unmanaged poor semi-improved grassland with colonising scattered scrub. Planted hedgerows and hedgerows with trees delineate the site boundaries. The site is further bordered by a dismantled colliery railway to the north and the A4195 (Park Spring Road) to the east.

Figure 1.1: Surveyed Area

Image curtesy of Google Earth Pro 7.1.5.1557, 53°33'15.71"N 1°22'31.60"W Elev.29m. Imagery date 5th June 2016. Image sourced 10th November 2017.

1.5 Nomenclature

1.5.1 The English names of flora and fauna species are given in the main text of this report. Scientific names are used alongside the English name where this first occurs. Vascular plants and Charophytes follow the nomenclature of The Botanical Society for the British Isles database (BSBI, 2007) with all other flora and fauna following the National Biodiversity Network (NBN) Gateway (NBN, 2014).

2 Ecological Features

2.1.1 The following ecological features have been identified on site. This information is taken from each corresponding historical ecological report as detailed within section 1.3. Refer to Drawing CRM.006.006.EC.D.002 for location and extent:

- Green Infrastructure, Deciduous Woodland & Hedgerow Habitat of Principal Importance (HPI) - located immediately off site. National value;
- Marshy Grassland (HPI) & Orchid Species of Principle Importance (SPI) - located on site. Local value;
- Bats– suitable roosting features in trees immediately off-site and low suitability foraging habitat on-site. Local value;
- Great Crested Newt (*Triturus cristatus*)-Potential terrestrial habitat on site (no suitable breeding habitat on-site, but several ponds throughout immediate area/within 500m). Local value;
- Common Reptiles- low populations of Common Lizard (*Lacerta vivipara*) and Grass Snake (*Natrix natrix*) on-site. Local value;
- Birds- General nesting opportunities across the site for a restricted range of common bird species. Within zone of influence value only;
- England SPI/Local BAP & Notable species – Records of Hedgehog (*Erinaceus europaeus*), Common Toad (*Bufo bufo*), Common Frog (*Rana temporaria*), and Smooth Newt (*Lissotriton vulgaris*) on-site/within immediate area; and
- Invasive Flora- Himalayan Balsam (*Impatiens glandulifera*) located immediately off site. Within zone of influence value only.

2.1.2 The following features have not been identified as ecological features requiring avoidance/mitigation measures during construction activities as surveys have indicated that habitats are not suitable and/or not of significant extent, surveyed species are likely absent, and/or no impacts have been identified: European/National Statutory designated sites, Local Wildlife Sites, England HPI/Local BAP Habitats (including Standing Water & Running Water), Ancient Woodland, Important Hedgerows, Veteran & TPO Trees, Conservation Areas, Badger (*Meles meles*), Dormouse (*Muscardinus avellanarius*), Otter (*Lutra lutra*), Water Vole (*Arvicola amphibious*), White-clawed Crayfish (*Austropotamobius pallipes*), Other Protected Mammals, Specially Protected Birds, Other Protected Herpetofauna, Fish/Marine species, Protected Invertebrates, Protected Flora, and Invasive Fauna.

3 Biodiversity Objectives

3.1.1 Biodiversity objectives are detailed within Table 3-1. These have been determined through consideration of the following, with information collated from historical ecological reports as detailed within section 1.3:

- Ecological Features identified on site and within the zone of influence;
- Historical records of protected species/habitats present within the locality;
- National planning policy, including UK Biodiversity Action Plan (BAP) Species of Principal Importance (SPI) and Habitats of Principal Importance (HPI);
- Local planning policy, including Local BAP species and habitats;
- Barnsley Local Development Framework Core Strategy (Barnsley Council, 2011), including consideration of Green/Blue Infrastructure Resource;
- Consultation with third parties/stakeholders including County Ecologist; and
- Other influencing factors such as, Geology, Hydrology, intended operational activities, and existing disturbance activities within the locality.

Table 3-1: Biodiversity Objectives

Ecological Feature	Target
Green Infrastructure, Deciduous Woodland & Hedgerow HPI	No degradation of habitats nor fragmentation effects. Maintenance/increase of green infrastructure/connectivity across site.
Marshy Grassland HPI & Orchid SPI	No net loss of habitat. Maintain favourable conservation status. Increase in available habitat opportunities.
Bats	No risk of killing/injury to bats nor loss of roosts. Increase in available roosting opportunities and foraging/commuting habitat for common bat species.
Great Crested Newt	No risk of killing/injury. No net loss of suitable terrestrial habitat. Increase in available habitat opportunities.
Common Reptiles	No risk of killing/injury, maintain favourable conservation status. Increase in available habitat opportunities.
Birds (general nesting)	No disturbance of active nests, and increase in availability of suitable nesting habitat (to be of benefit to a range of common bird species).
England SPI/Local BAP & Notable species	No risk of killing/injury. Increase in available habitat opportunities.
Invasive Flora	No spreading onto site or throughout immediate area. Removal of species throughout area.

4 Relevant Legislation and Policy

4.1 Legislation

4.1.1 Wildlife legislation and policy relevant to the proposed works, based on the findings of the desk study and field surveys are set out below. This legal information is a summary only, and the original legal documents should be consulted for definitive information.

Table 4-1: Legislation Protection Afforded to Sites/Habitats that could Potentially be Affected by the Proposed Works

Designated Site/Habitat	Legal Status
Hedgerows	Hedgerows that meet certain criteria are protected by The Hedgerows Regulations 1997, under which it is an offence to remove or destroy such hedgerows without permission from the Local Planning Authority.

Table 4-2: Legislation Protection Afforded to Species that could Potentially be Affected by the Proposed Works

Species	Legal Status
European Protected	
Bats & Great Crested Newt	These animal species and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species (Amendment) Regulations 2012, which makes it illegal to: • Deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs; • Deliberately disturb such an animal; • Damage or destroy a breeding site or resting place of such an animal. European Protected Species (EPS) licences can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed: • The development is for reasons of overriding public interest; • There is no satisfactory alternative; and • The favourable conservation status of the species concerned will be maintained and/or enhanced. Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a legal duty to 'have regard to the requirements of the EC Habitats Directive in the exercise of their functions'. This means that they must consider the above 3 tests when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations. As a consequence, Planning Applications for such developments must demonstrate that the 3 tests will be passed.
Nationally Protected	
Bats & Great Crested Newt	These animals receive full protection under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any such animal; • Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; and • Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.

Species	Legal Status
Common Lizard, Grass Snake	These animals receive limited protection under The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal to intentionally kill or injure any such animal.
Nesting Birds (general)	All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any wild bird; • Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.
Wild Mammals	The Wild Mammals (Protection) Act 1996 makes it illegal to mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, drown, crush, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.
Invasive Species	
Himalayan Balsam	The Wildlife and Countryside Act 1981 (as amended) contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 of the Act.

4.1.2 Section 40 of the Natural Environment and Rural Communities Act 2006 (the NERC Act) places a legal duty on public bodies, including planning authorities, to 'have regard' to the conservation of biodiversity when carrying out their normal functions, which includes consideration of planning applications.

4.1.3 In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England under the UK Post-2010 Biodiversity Framework. This is known as the list of Habitats and Species of Principal Importance (HPI/SPI), of which there are 56 habitats and 943 species. The HPI/SPI list is used to guide planning authorities in implementing their duty under the NERC Act.

4.2 National Planning Policy

4.2.1 The NPPF set out the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development. This presumption does not apply where development requiring Appropriate Assessment under the Birds or Habitats Directives is being considered, planned or determined.

4.2.2 The NPPF states that:

'When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- proposed development on land within or outside a Site of Special Scientific Interest (SSSI) likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs;

- development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;
- opportunities to incorporate biodiversity in and around developments should be encouraged;
- planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and
- the following wildlife sites should be given the same protection as European sites: potential Special Protection Areas (SPA) and possible Special Areas of Conservation (SAC); listed or proposed Ramsar sites; and sites identified, or required, as compensatory measures for adverse effects on European sites, potential SPAs, possible SACs, and listed or proposed Ramsar sites.'

4.2.3 Under the NPPF, the Planning Authority has a responsibility to promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan.

4.2.4 Also under the NPPF the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

4.3 Local Planning Policy

4.3.1 The following policies of the adopted Barnsley Local Development Framework Core Strategy (Barnsley Council, 2011) are applicable:

1. CSP 33 Green Infrastructure:

We will protect, maintain, enhance and create an integrated network of connected and multi-functional Green Infrastructure assets that:

i. provides attractive environments where people want to live, work, learn, play, visit and invest;
ii. meets the environmental, social and economic needs of communities across the borough and the wider City Regions;
iii. enhances the quality of life for present and future residents and visitors;
iv. helps to meet the challenge of climate change;
v. enhances biodiversity and landscape character;
vi. improves opportunities for recreation and tourism;
vii. respects local distinctiveness and historical and cultural heritage; and
viii. maximises potential economic and social benefits.

At a strategic level Barnsley's Green Infrastructure network includes the following corridors which are shown on the Green Infrastructure Diagram 5 [available on page 137 of the Barnsley Local Development Framework Core Strategy (Barnsley Council, 2011)]:

i. River Dearne Valley Corridor;

ii. River Dove Valley Corridor;

iii. River Don Valley Corridor;

iv. Dearne Valley Green Heart Corridor; and

v. Historic Landscape Corridor.

The network of Green Infrastructure will be secured by protecting open space, creating new open spaces as part of new development, and by using developer contributions to create and improve Green Infrastructure.

We will produce a Green Infrastructure Strategy for Barnsley which will be informed by the Leeds City Region and South Yorkshire Green Infrastructure Strategies.

2. CSP 36 Biodiversity and Geodiversity:

Development will be expected to conserve and enhance the biodiversity and geological features of the borough by:

i. protecting and improving habitats, species, sites of ecological value and sites of geological value with particular regard to designated wildlife and geological sites of international, national and local significance, ancient woodland and species and habitats of principal importance identified in Section 74 of the Countryside and Rights of Way Act 2000 and in the Barnsley Biodiversity Action Plan;

ii. maximising biodiversity and geodiversity opportunities in and around new developments; and

iii. conserving and enhancing the form, local character and distinctiveness of the river corridors of the Dearne and Dove as natural floodplains and important strategic wildlife corridors.

Development which may harm a biodiversity or geological feature will not be permitted unless effective mitigation and/or compensatory measures can be ensured.

3. CSP 37 Landscape Character

Development will be expected to retain and enhance the character and distinctiveness of the individual Landscape Character Area in which it is located (as set out in the Landscape Character Assessment of Barnsley Borough 2002).

5 Impacts

5.1.1 Potentially damaging construction-type activities are listed below. These have been identified from: the proposed site layout as detailed within Appendix A; proposed construction practices; and current guidance on activities/operations likely to result in impacts to ecological features (CIEEM, 2016):

- Movement of machinery and vehicles;
- Site clearance;
- Strimming of vegetation;
- Tree felling/surgery works;
- Digging/excavation or infilling;
- Pollution/silt runoff;
- Dust/air pollution;
- Noise;
- Lighting;
- Use of cranes;
- Dumping, spreading, discharge or storage of materials;
- Construction of roads, hardstanding or buildings;
- Laying of pipes and cables;
- Erection of permanent or temporary structures;
- Engineering works including drilling;

5.1.2 Taking into consideration the expected zone of influence of each of these activities, potential direct or indirect impacts resulting from the proposed construction activities have then been identified. This includes (but is not limited to): short-term impacts: disturbance; and long-term impacts: modification, loss, and fragmentation/ isolation. Aspects of ecological structure and function considered when predicting impacts includes: available resources; environmental processes; ecological processes; human influences; historical context; ecological relationships; ecological role or function; ecosystem properties; and other environmental influences (CIEEM, 2016).

Table 5-1: Potential Impacts to Ecological Features

Ecological Feature	Potential Impact
Green Infrastructure, Deciduous Woodland & Hedgerow HPI	Yes- a) potential works within root zones during construction activities/site clearance (no loss of habitats). Minor adverse, temporary, reversible impact.
Marshy Grassland HPI & Orchid SPI	Yes- a) loss of habitat during site clearance/construction activities. Minor adverse, permanent, reversible impact.
Bats	Yes – a) loss of low suitability habitat during site clearance/construction activities. Minor adverse, permanent, reversible impact; b) potential indirect disturbance of any retained roosts and off-site commuting/ foraging habitat, from lighting during construction or operation of site. Minor adverse, temporary, reversible impact.

Ecological Feature	Potential Impact
Great Crested Newt	Yes – a) limited risk of killing/injury during site clearance, and b) loss of approx. 3.5Ha of suitable terrestrial habitat, IF GCN present. Minor adverse, temporary, reversible impact.
Common Reptiles	Yes – a) risk of killing/injury during site clearance works. Significant adverse, temporary, irreversible impact; b) loss of approx. 3.5Ha of suitable habitat during site clearance works. Minor adverse, permanent, reversible impact.
Birds (general nesting)	Yes – a) potential disturbance of active nesting birds during site clearance. Minor adverse, temporary, irreversible impact. b) loss of suitable nesting habitat during site clearance. Minor adverse, permanent, reversible impact.
England SPI/Local BAP & Notable species	Yes – a) risk of killing/injury during site clearance, and b) loss of suitable habitat. Minor adverse, temporary, reversible impact.
Invasive Flora	Yes – a) risk of spreading during site clearance. Minor adverse, temporary, reversible impact.

6 Mitigation

6.1 Mitigation

6.1.1 For each potential impact identified, all mitigation options provided follow the established mitigation hierarchy as set out in BS42020:2013 (BSI, 2013). This seeks as a preference to avoid impacts, then to mitigate unavoidable impacts, and as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures. All recommended mitigation measures follow current best practice guidance as identified by CIEEM (CIEEM, 2014), and is proportionate to the level of impact identified and to the nature and scale of the proposed works. A clear and valid justification of methods has been provided where necessary. Where applicable, mitigation measures should make reference to the Construction (Design and Management) Regulations 2015 (CITB, 2016).

Green Infrastructure, Deciduous Woodland & Hedgerow HPI

6.1.2 Avoidance: Protection fencing (i.e. Heras panels) will be set out in accordance with BS5837:2012 along the base of hedgerows and off-site woodland which delineate the site boundaries to protect these from accidental damage during construction activities. Refer to Appendix A – Proposed Site Layout for location of existing hedgerows and woodland.

6.1.3 Mitigation: None proposed.

6.1.4 Compensation: None proposed.

Marshy Grassland HPI & Orchid SPI

6.1.5 Avoidance: None proposed.

6.1.6 Mitigation: Plugs/turfs of marshy grassland, in particular those areas with Orchid species, will be collected and relocated to a receptor area in the north of the site. Refer to Phase 2 Ecology Report (Enzygo, 2014) for full details of relocation procedure.

6.1.7 Compensation: None proposed.

Bats

6.1.8 Avoidance: As above, off-site trees will be protected with fencing (i.e. Heras panels) in accordance with BS5837:2012 to protect any roosts within from disturbance. Additionally, there will be no night lighting or night working during the construction phase, to avoid indirect impacts to surrounding habitats and species (i.e. bats) that may utilise these features.

6.1.9 Mitigation: None proposed.

6.1.10 Compensation: None proposed.

Great Crested Newt

6.1.11 Avoidance: Reasonable Avoidance Measures (RAMS) will be used to avoid potential impacts to GCN. This will include contractors sensitively proceeding with site clearance in accordance with this CEMP and under the supervision of a suitably qualified Ecological Clerk of Works (ECoW). The duration and frequency of attendance will be dependent upon the programme of works for site clearance, but the ECoW will need to attend until all habitats are made unsuitable for GCN. The translocation exercise as stipulated below for Common Reptiles, will also help to identify the presence of any GCN. In the unlikely event that any GCN are encountered, works will immediately cease, and Natural England will be consulted on the best method to proceed/need for a Licence.

6.1.12 Mitigation: None proposed.

6.1.13 Compensation: The loss of suitable terrestrial habitat will be compensated through the creation of a common reptile receptor site as detailed below.

Common Reptiles

6.1.14 Avoidance: To avoid the risk of killing/injury to common reptiles, exclusion fencing will be installed around the site boundary and a translocation exercise undertaken. Any common reptiles encountered will be relocated to habitats immediately off-site and to a receptor area in the north of the site. Refer to Phase 2 Ecology Report (Enzygo, 2014) for full details of reptile translocation.

6.1.15 Mitigation: None proposed.

6.1.16 Compensation: As above, a reptile receptor is to be created to the north of the site. Refer to Appendix A Proposed Site Layout for location and design.

Birds (general nesting)

6.1.17 Avoidance: To avoid the disturbance of active nesting birds, any suitable scrub/habitats will be cleared from September to February, outside of the bird nesting season. As timing constraints associated with other protected species (i.e. common reptiles) will also need to be taken into consideration, it may be necessary to clear suitable bird nesting habitat between March and August. In this instance, a suitably qualified ECoW will survey habitat immediately prior to its removal. The duration and frequency of attendance will be dependent upon the programme of works for site clearance, but the ECoW will need to attend until all habitats are made unsuitable for nesting birds. If an active nest is present, at least a 5-metre radius buffer area (or wider as appropriate and dependent upon the species identified) will be set out, or the vegetation retained until any young have fledged. To prevent contractors accidentally straying into the buffer area, these will be clearly marked out i.e. with high visibility fencing.

6.1.18 Mitigation: None proposed.

6.1.19 Compensation: To compensate for the limited loss of suitable bird nesting habitat, additional native trees and planting will be incorporated into the proposed landscaping and across the site which will provide cover (and foraging sources) for a range of common bird species. Refer to Appendix A proposed landscape plan.

England SPI/Local BAP & Notable species

6.1.20 Avoidance: As above, to avoid impacts to these species, the site will be sensitively cleared under the supervision of a suitably qualified ECoW. Any common amphibians or small mammals will be allowed to move away on their own accord, or moved by hand by the ECoW to off-site habitats out of harms way.

6.1.21 Mitigation: None proposed.

6.1.22 Compensation: New landscaping will provide additional opportunities for England SPI/Local BAP & Notable species.

Invasive Flora

6.1.23 Avoidance: Site clearance will proceed under the supervision of a suitably qualified ECoW whom will check for the presence of invasive flora. Where stands of invasive flora are identified, an invasive weed contractor will be employed to advise the client on the best method which will avoid the spread of/to treat stands of Himalayan Balsam in accordance with current guidance

6.1.24 Mitigation: None proposed.

6.1.25 Compensation: None proposed.

6.1.26 If at any time, evidence of a previously unidentified protected species is encountered (i.e. Badger sett), then works must immediately cease and an ecologist consulted on the best method to proceed. Where relevant, Natural England may also need to be consulted on the requirement for a licence.

6.2 Enhancement

6.2.1 Opportunities for biodiversity enhancement (above and beyond those required to mitigate for any identified impacts) have been determined through consideration of: Ecological Features identified on site and within the zone of influence; Historical records of protected species/habitats present within the locality; National and Local planning policy including UK BAP SPI/HPI and Local BAP species/habitats; Local Development Plan including consideration of Green/Blue Infrastructure Resource; Consultation with third parties/stakeholders where applicable; and Other influencing factors such a Geology/Hydrology, intended operational activities, and existing disturbance activities within the locality. Where necessary, proposed enhancements should refer to the Construction (Design and Management) Regulations 2015 (CITB, 2016):

- Refer to Appendix A proposed landscape plan for details of new tree, shrub and hedgerow planting which will help improve green infrastructure, supplement existing boundary features and maintain connectivity across the site;
- Ponds and wetland habitat will also be created to the north of the site which will provide additional habitats suitable for use by GCN and common amphibians; and
- The reptile receptor site will contain 6x informal hibernacula (i.e. brash and vegetation mounds) which will provide additional hibernation opportunities for common reptiles, GCN, and common amphibian species. These will also provide opportunities for small mammals and invertebrate species.

7 Scope of Works and Schedule

7.1 Scope of Works

7.1.1 The scope of works will involve site clearance to facilitate construction activities, with the retention and enhancement of habitats to the north of the site and along the north-western and south-western site boundaries. Existing access routes will be utilised, and there will be no additional land take for the use of site compounds or storage areas etc.

7.1.2 Refer to Appendix A – Proposed Site Layout, for the proposed working footprint and location of receptor areas. This also shows the location and extent of off-site ecological features and mitigation prescriptions.

7.2 Works Schedule

7.2.1 The mitigation and enhancement will be undertaken in accordance with the proposed programme of works. The programme takes into account: seasonal constraints; the expected timetable of works (i.e. when site clearance needs to be undertaken, and when construction works are due to commence); and any other timing considerations.

Table 7-1: Works Schedule

Recommendation	2018											
	J	F	M	A	M	J	J	A	S	O	N	D
Installation of tree/hedgerow/GI protection fencing												
Installation of reptile exclusion fencing												
Creation of receptor area (including pond enhancements & hibernacula etc)												
Reptile translocation (and common amphibians etc)												
Relocation of marshy grassland/ Orchid plugs & turfs (suitable donors identified/tagged during growing season)												
Sensitive site clearance under supervision of ECoW (following completion of reptile translocation & grassland plug relocation). Duration/frequency until all habitats made unsuitable.												
Treatment of invasive flora as necessary												
New tree/shrub planting and seeding (as works progress)												

8 Mechanisms to Secure Delivery

8.1 General

8.1.1 Prior to the commencement of any works on site, including the setting up of site compounds and access onto the site, the Principal Contractor (and any personnel appointed by the Principal Contractor) will receive a formal briefing by the main ecologist or their appointed representative. This briefing will detail all relevant protected species issues as set out within this CEMP. A copy of this document must be read and understood by all contractors conducting the works.

8.1.2 The Principal Contractor will then be responsible for relaying any necessary information to contractors on site, either employed by them directly or third parties. Advice should be sought from Enzygo's Director of Ecology in the event of complex issues arising or in cases where there is any doubt as to the action to be taken. Deviation from this CEMP will only be undertaken upon written agreement with Enzygo (and following approval from the Local Planning Authority as necessary).

8.2 Contact Details

8.2.1 Details of each party are as follows:

- Main Ecologist/point of contact – Derek Allan, Director of Ecology c/o Enzygo Ltd: 01454 269237 or 07398 663744 derek.allan@enzygo.com;
- Ecological Clerk of Works (ECoW) - TBC;
- Principal Contractor/point of contact – TBC, and
- Site Manager – TBC.

8.2.2 The Principal Contractor for these works is to be confirmed, who will be responsible for ensuring that all works are undertaken in accordance with the Construction (Design and Management) Regulations 2015 (CITB, 2016).

8.2.3 The site is currently owned by the client, and they are responsible for arranging site access and contractors accordingly.

8.3 Role of Client/Third Party Contractors

8.3.1 The client or a third party employed to undertake specific services, will be responsible for implementing all of the aforementioned avoidance/mitigation/ enhancement measures. These will proceed under ecological supervision where relevant.

8.4 Role of Ecological Clerk of Works

8.4.1 A suitably qualified and experienced ecologist, licensed/accredited where necessary, will be provided and act as an ECoW. The role of the ECoW is in accordance with BS42020:2013 (BSI, 2013) and will satisfy the following requirement:

'An ecological clerk of works should be able to demonstrate a level of experience and competence commensurate with the complexity of the role needed on site to deal with the wide range of ecological issues likely to be encountered and to adapt to new and unforeseen challenges raised by development activities'.

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Appendix A – Proposed Site Layout, Landscaping Masterplan (including Green Corridor & Ponds close up) (GSDA, 2017)

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