Phase 1 Habitat Survey

Monckton Coke Works

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AES-LTD

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Field Investigations and Data

Where field investigations have been carried out these have been restricted to a level of detail required to achieving the stated objectives of the work. Where any data supplied by the client or from other sources have been used it has been assumed that the information is correct. No responsibility can be accepted by AES - Ltd for inaccuracies in the data supplied by any other party.

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1.0 INTRODUCTION

1.1 The following report has been prepared by Applied Ecological Services Ltd for Hargreaves (UK) Services Ltd on behalf of Stuart Ray and provides details of an Ecological Appraisal undertaken at the site of the Monckton Coke Works (Approximate Central OS Grid Ref: SE 372 123).

1.2 The site is located north east of the town of Royston, Barnsley. The B6428 runs immediately adjacent to the eastern most boundary of the site and the western boundary is a railway lane which is in use on a weekly basis. The southern boundary of the site is Monckton Coke Works whilst to the north there is a mix of industrial works, woodland and grassland.

1.3 Proposals include the reinstatement of a train link to an existing line to facilitate coal haulage to the coke works. The proposed work will require the removal of several juvenile trees and an area of grassland within which a pond is situated.

2.0 METHODOLOGY

Desk Study

2.1 In order to compile existing baseline information, relevant ecological information was requested from the following organisations which for the purposes of this report, included:

- Multi Agency Geographic Information for the Countryside (Magic) website;
- Barnsley Biological Records Centre and
- West Yorkshire Ecology

2.2 For sites of International nature conservation importance, such as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), a 10km radius from the site boundary was searched. With regards to statutory sites of national, regional and local importance, such as Sites of Special Scientific Interest (SSSIs) and Local Nature Reserves (LNRs), a 2km radius was searched a 2km radius was also searched for non-statutory designated sites such as Local Wildlife Sites (LWS) and records of protected and notable species.

2.3 Further inspection, using colour 1:25,000 OS base maps (www.ordnancesurvey.co.uk) and aerial photographs from Google Earth (www.maps.google.co.uk), was also undertaken in order to provide additional context and identify any features of potential importance for nature conservation in the wider countryside.

Habitats/Flora

2.4 The site was surveyed 8th May 2013 by Charlotte Mercer an experienced ecologist with AES-LTD using the standard Extended Phase 1 Habitat Survey methodology (JNCC, 2010)[1] as recommended by Natural England to identify specific habitats of ecological interest. A walkover survey of the site had also been completed on 6th March 2013. Whilst the species list should not be regarded as exhaustive, sufficient information was gained during the survey to enable classification and assessment of major habitat types.

Fauna

2.5 During the survey of the site, observations, signs or suitable habitat for any protected / notable species were noted

Survey Limitations

2.6 A full suite of plant species likely to be present on site throughout the year cannot be determined from a single survey visit. However the survey reported here was undertaken at an optimal time of year (May), and so this is not considered to be a constraint on the survey.

[1] JNCC, (2010), Handbook for Phase 1 habitat survey - a technique for environmental audit

3.0 RELEVANT LEGISLATION & POLICY[2]

Legislation

Habitat Regulations

3.1 The Conservation of Habitats and Species Regulations 2010 transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb[3] wild animals listed under Schedule 2) of the Regulations (such as all bat species and great crested newts). It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

Wildlife & Countryside Act

3.2 The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act (CRoW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention, making it an offence to:

- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection; and

- Pick or uproot any wild plant listed under Schedule 8 of the Act. Sites of Special Scientific Interest (SSSI) are designated under this Act.

Policy

National Planning Policy Framework

3.3 The government published the National Planning Policy Framework (NPPF) on 27th March 2012. This sets out new guidance for local authorities, focusing on helping to produce planning policies that are clear and easier to understand. The NPPF is effective immediately; however the local plans are still valid, for the time being, even if they have been produced prior to the NPPF. There is emphasis on the need for economic growth

[2] Please note that this legal information is a summary and intended for general guidance only. The original legal documents should be consulted for definitive information.

[3] Disturbance, as defined by the Conservation of Habitats and Species Regulations 2010, includes in particular any action which impairs the ability of animals to survive, breed, rear their young, hibernate or migrate (where relevant); or which affects significantly the local distribution or abundance of the species.

through designing planning policies which are in favour of development but this will not be achieved in isolation from social and environmental development. Section 11 sets out the requirements for conserving and enhancing the natural environment. Land previously used for development (brownfield sites) should be favoured as long as they are not considered to be of high environmental value. Of particular note is paragraph 152 of the Plan-Making Section which states, "Local planning authorities should seek opportunities to achieve each of the economic, social and environmental dimensions of sustainable development, and net gains across all three. Significant adverse impacts on any of these dimensions should be avoided and, wherever possible, alternative options which reduce or eliminate such impacts should be pursued. Where adverse impacts are unavoidable, measures to mitigate the impact should be considered. Where adequate mitigation measures are not possible, compensatory measures may be appropriate". The Framework is guidance for local planning authorities on the content of their Local Plans, but is also a material consideration in determining planning applications. The NPPF has replaced much existing planning policy guidance, including Planning Policy Statement 9: Biological and Geological Conservation. However, the government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and their Impact within the Planning System, which accompanied PPS9 remains valid.

Biodiversity Action Plans

3.4 The UK Biodiversity Action Plan (UKBAP) (Anon, 1995) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A list of national priority species and habitats has been produced with all listed species/habitats having specific action plans defining the measures required to ensure their conservation. Regional and local BAPs have also been organised to develop plans for species/habitats of nature conservation importance at regional and local levels.

Local Structure Plans

3.5 County, District and Local Councils have Structure Plans and other policy documents that include targets and policies which aim to maintain and enhance biodiversity. These are used by Planning Authorities to inform planning decisions

Natural Environment and Rural Communities (NERC) Act (2006)

3.6 Public authorities have a duty to conserve biodiversity under the Natural Environment and Rural Communities (NERC) Act, which came into force in 2006. This states that 'any public body or statutory undertaker in England and Wales must have regard to the purpose of conservation of biological diversity in the exercise of their function and that decisions of public bodies work with the grain of nature and not against it' (Part 3, Paragraph 60). The

Act also includes a range of measures to strengthen the protection of wildlife and habitats.

Wildlife Legislation

3.7 In addition to the above, a range of legislation is in place to ensure that habitats and species of conservation importance are protected from harm, either directly or indirectly. A summary of this legislation is given in Table 1.

Table 1: Overview of Key Legislation

Legislation	Relevance
The Conservation of Habitats and Species Regulations 2010	This transposes the EC Habitats Directive 1992 (*Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna)* and the EC Birds Directive 1979 (*Council Directive 79/409/EEC on the protection of wild birds*) into UK law. Annexes I and II of the Habitats Directive list (respectively) habitats and species for which member states are required to establish and monitor SACs. The EC Birds Directive provides a similar network of sites (SPAs) for all rare or vulnerable species listed in Annex I and all regularly occurring migratory species, with particular focus on wetlands of international importance. Together with SACs, SPAs form a network of pan-European protected areas known as 'Natura 2000' sites. The Habitats Regulations also make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4.
The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979)	The Bern Convention aims to ensure conservation and protection of all wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to afford special protection to the most vulnerable or threatened species (including migratory species).
The Wildlife and Countryside Act (WCA) 1981 (as amended)	The WCA is the primary UK mechanism for statutory site designation (Sites of Special Scientific Interest, SSSIs) and the protection of individual species listed under Schedules 1, 2, 5 and 8 of the Act, each subject to varying levels of protection
The Countryside and Rights of Way Act 2000	This legislation strengthens the provision of the 1981 WCA (as amended), both in respect of statutory sites such as SSSIs and protected species. It also places a statutory obligation on Local Authorities and other public bodies to further conservation of biodiversity in the exercise of their functions, thus providing a statutory basis to the Biodiversity Action Plan (BAP) process, which began in 1994. Section 74 of the Act lists the habitat types and species of principal importance in England.
Hedgerow Regulations 1997	The Hedgerow Regulations 1997 are intended to protect important countryside hedges from destruction or damage in England and Wales.
Natural Environment and Rural Communities Act 2006	The 'NERC' Act makes provision in respect of biodiversity, pesticides harmful to wildlife, protection of birds and invasive non-native species. Section 40 of the act also introduced a new duty on public bodies to have regard to the purpose of conserving biodiversity in the exercise of their functions.

3.8 Due to its location the site has the potential to support or provide habitat for a number of those species protected by the various pieces of legislation summarised in Table 1. A summary of the key legislation is given in Table 2.

Table 2: Key Legislation for protected species

Species	Key legal protection
Bats (all species)	All European species of bat are listed on Annex IV of the EC Habitats Directive as being in need of "strict protection". This is implemented in Britain under The Conservation of Habitats and Species Regulations 2010. All British bats are included on Schedule 5 of the WCA (1981) and the whole of Section 9 of The Act applies to European bat species. In summary, the above legislation collectively prohibits the following: • Deliberately or recklessly capturing, injuring, taking or killing of a bat; • Deliberately or recklessly harassing a bat; • Intentionally or recklessly disturbing of a bat in its place of rest (roost), or which is used for protection or rearing young; • Deliberately or recklessly damaging, destroying or obstructing access to any resting place or breeding area used by bats; • Deliberately or recklessly disturbing a bat in any way which is likely to significantly affect the local populations of the species, either through affecting their distribution or abundance, or affect any individuals ability to survive, reproduce or rear young; • Possession or advertisement/sale/exchange of a bat (dead or alive) or any part of a bat. In England, licences are issued by Natural England for any actions that may compromise the protection of a European protected species, including bats, under the Habitats Regulations 2010. This includes all developments, regardless of whether or not they require planning permission. Bats are also protected by the Wild Mammals (Protection) Act 1996 and selected species are listed on the UK Biodiversity Action Plan (BAP) and the Hull Biodiversity Action Plan (LBAP)
Great crested newt	Great crested newts are protected under European and British law, having the same level of protection as bats (see above). Licenses are issued by Natural England for any actions that may compromise the protection of this species, under the Habitat Regulations 2010. This includes all developments, regardless of whether or not they require planning permission. The species is also listed on the UK and Local BAPs.
Otter	Otter are again protected under European and British law and receive the same level of protection as bats (see above.) The species is listed under Annex II and IV of the Habitats Directive, which is implemented in Britain under The Conservation of Habitats and Species Regulations 2010. Otter are also protected under Schedules 5 and 6 of the WCA 1981, The Wild Mammals (Protection) Act 1996 and are listed as a priority species in Appendix II of the Bern Convention. The species is also listed on the UK and Local BAPs.

Table 2: Continued

Species	Key legal protection
Water Vole	Water vole is protected under Schedule 5 of the WCA 1981 (as amended). This makes it an offence to: • Intentionally kill, injure of take water voles; • Possess or control the species; • Damage or destroy any place used by water vole for shelter or protection; • Disturb water vole while they occupy such places of shelter; • Sell, possess or transport water vole for the purpose of sale; and • Advertise the buying or selling of water vole. The species is also protected under the Wild Mammals (Protection) Act 1996 and listed on the UK and Local BAPs.
Birds	The majority of bird species, with the exception of some species listed on Schedule 2, are protected under the WCA 1981 (as amended). This makes it an offence to intentionally or recklessly: • Kill, injure or take any wild bird; • Take, damage or destroy any nest which is in use or being built; and • Take, damage or destroy the eggs of any such bird. Additional protection against disturbance whilst at the nest is also afforded to any bird species, whether an adult bird or their dependant young, which is listed on Schedule 1 of the Act. Certain species are also listed as being of priority conservation importance on the UK and Local BAPs
Badger	Badger are protected under the Protection of Badgers Act 1992, which makes it an offence to: • Knowingly kill, capture, injure or disturb any individual; • Intentionally damage or destroy a badger sett, or any part thereof; • Obstruct access to an area which is used for breeding, resting or shelter; and • Disturb a badger while it is using any place used for breeding, resting or shelter. The species is also protected by the Wild Mammals (Protection) Act 1996.

4.0 RESULTS AND DISCUSSION

Desk Study

Designated Sites

International & National Designated Sites

4.1 There are no sites of International Nature Conservation within 10km of the study area.

4.2 There are no Nationally Designated Sites within 2km of the study area

Locally Designated Sites

4.3 One Site of Scientific Interest (SSI) is located within 2km of the survey area and is summarised below in Table 3.

3.4 Three Wakefield Nature Area's (WNA) are located within 2km of the survey area and are summarised below in Table 4.

Table 3: Site of Scientific Interest (SSI) located within 2km of the survey Site

Site Name	Feature of Interest	Area (km)	Distance from Survey Area
Barnsley Canal	Wetland, grass snake	5	65m to the west of survey area

Table 4: Wakefield Nature Area (WNA) located within 2km of survey site

Site Name & Ref.	Feature of Interest	Distance from Survey Area
Ellis Laithe, Cold Hiendley	Grassland, scrub, woodland features, yellow meadow ant, dingy skipper, hare	Located immediately north and east of survey site
Barnsley Canal Royston	No information available	
Barnsley Canal, Cold Hiendley	Wetland, grass snake	1.8km north of survey area

4.5 No statutory or non-statutory designated sites fall within the site boundary. Following a preliminary review of the development proposals it would appear that it is unlikely that there would be any negative effects on adjacent WNA areas provided the requirements for any mitigation is assessed and implemented.

Species

4.6 Files for species records are vast so are not included within this report. However they are available by request.

Amphibians

4.7 44 records of four species of amphibian (great crested newt *Triturus cristatus,* common toad *Bufo bufo*, common frog *Rana temporaria* and smooth newt *Triturus vulgaris*) were provided. Nine of these records were for Great crested newt. Records were provided from 1990 to 2012 and were from the adjacent Rabbit Ings area to the east of the site and from the Cold Hiendly area approximately 750m to the south of the study area. It is understood that a translocation program has recently (2011) taken place under licence on the Rabbit Ings area, data has been requested.

Birds

4.8 A total of 35,378 bird records comprising 142 species were supplied, covering the years 1988-2012. The vast majority of these records were for a very well-watched location known as Carlton Marsh a Local Nature Reserve (SE 379 009). Carlton Marsh is located just out with the 2Km search area to the south of the study area. Records here indicate the presence of a range of schedule 1 raptors including merlin, *Falco columbaris,* hobby*, Falco subbuteo* and peregrine*, Falco peregrinus* along with waders and wildfowl notably bittern *Botaurus stellaris*, little ringed plover *Charadrius dubius* green sandpiper *Tringa ochropus* and also kingfisher *Alcedo atthis* There were also records for barn owl *Tyto alba.*

Mammals

4.9 A total of 28 records of at least four species of bat (pipistrelle *Pipistrellus sp.*, Daubenton's bat *Myotis daubentonii,* noctule *Nyctalus noctule* and brown long eared *Plecotus auritus*) covering the years 1988-2010 were provided for the search area. Most of these records were at private addresses located in nearby built up areas and in a farm streading to the south of the site at Ellis Laithe.

4.10 Only one record of badger *Meles meles* (2007) was provided, for the rabbit ings area, it is not clear if this record is for an individual animal or a sett.

4.11 There were 49 records of water vole *Arvicola terrestris* within 2 km of the site boundary, most originating from the Rabbit Ings area to the east of the study area and from the Barnsley Canal to the west. Most of the records were recent sightings from 2011/12 but records were provided from 1986.

Reptiles

4.12 Five records of grass snake *Natrix natrix*, were provided for the 2km search area. The records covered the period 2000 to 2012. Three of the records were from the Rabbit Ings area to the east, one from the Barnsley Canal (Royston) and one from Carlton Marsh (LWS) > 2km south of the survey area.

4.13 Two records of Terrapin (Red-eared Terrapin *Chrysemys scripta* and European Pond Terrapin *Emys orbicularis*) have also been provided; both are from the Barnsley Canal (Royston) and are from 2011 and 2012 respectively.

Other Species

4.14 One record of Dingy Skipper *Erynnis tages*, was provided from 2008 from the Rabbit Ings area to the east of the survey area.

Field Results and Discussion - Habitats/Flora

General Site Description

4.15 The site is a linear route which runs in an east to northwest direction. The survey area existed as three distinct areas. The first area is grassland, with scrub and a pond, the proposed rail link would then pass through Monckton Cokeworks itself and then onto the third area which had been a rail siding until the 1980's, it currently exists as an area of ballast material bordered either side with regenerated juvenile trees and scrub.

4.16 Surrounding habitats include Monckton Coke works to the south, a railway line to the west which is in use on a weekly basis and further to the west Barnsley Canal. To the east there is Rabbit Ings Country Park – habitats here include woodland, grassland, wetland areas and ponds along with sports pitches, footpaths and cycle routes. To the north there is Ellis Laithe (WNA) an area of grassland and scrub. Rabbit Ings and Ellis Laithe were not surveyed.

4.17 The locations of the habitats described in the following sections can be found on **Figure 1**: Phase I Habitat Plan. Target notes (TN) are provided in **Appendix A**.

Dense Scrub

4.18 Several areas of dense scrub were recorded within the site boundary. Scrub bordered the grassland field in the east of the site and a large swathe ran through the middle of this field also. Species recorded here included gorse *Ulex europaeus,* goat willow *Salix caprea*, silver birch *Betula pendula,* beech *Fagus sylvatica,* hawthorn *crataegus monogyna,* and bramble *Rubus fruticosus,* occasional dog rose *Rosa canina* was also recorded. In the northeast corner of the field, introduced / garden escapes were recorded including buddleia *Buddleia davidii* and broom *Cytisus scoparius.* (TN 3).

4.19 Dense continuous scrub also boarded the ballast area (TN 12). Species recorded here were mainly regenerated silver birch with approximate DBH (diameter at breast height 1.3m) of 2.5-4 inches. Goat willow, beech, hawthorn and dog rose were also recorded.





Photograph 1 & 2 above show the existing ballast area, bordered by regenerated birch scrub where the rail link was removed in the 1980s

'Unimproved' grassland

4.20 Made or restored ground comprising a variety of different spoil materials. Plant species across this grassland indicates a 'neutral grassland type'. There was no evidence to suggest the grassland is managed and therefore it has been classified as unimproved. The ecological value of this area as a grassland is diminished due to the encroachment of scrub which constituted approximately 65% of the area. Species recorded included birds foot trefoil *Lotus corniculatus,* yarrow *Achillea millefolium,* ox-eye daisy *Leucanthemum*

vulgare, field forget me not *Myosotis arvensis,* ribwort plantain *Plantago lanceolata,* rosebay willowherb *Chamerion angustifolium,* creeping buttercup *Rannunculus repens,* white dead nettle *Lamium album,* coltsfoot *Tussilago farfara,* stinging nettle *Urtica dioca,* black knapweed *Centaurea nigra,* field scabious *Knautia arvensis,* broadleaved doc *Rumex obtusifolius,* creeping thistle *Cirsium arvense*, common vetch *Vicia sativa,* crested dogstail *Triturus cristatus,* common sorrel *Rumex acetosa,* daisy *Bellis perennis,* cocksfoot *Dactylis glomerata,* Yorkshire fog *Holcus lanatus,* wild strawberry *Fragaria vesca,* compact rush *Juncus conglomeratus,* hard rush *Juncus inflexus,* glaucous sedge *Carex flacca,* hairy sedge *Carex hirta,* hogweed *Heracleum sphondylinum,* dandelion *Taraxacum officinale* red dead nettle *Lamium purpureum*, and selfheal *Prunella vulgaris.*

Tall Herb (Ruderal)

4.21 Patches of tall ruderal herb, poor in diversity where present. Common nettle *Urtica dioica* and creeping thistle dominated. Other species present included great willowherb *Epilobium sirsutum*, rosebay willowherb, spear thistle *Cirsium vulgare*, broad-leaved dock and false-oat grass A*rrhenanthemum elatius*.

Standing Water

4.22 One pond was located within the survey site, it occured within the grassland area and is ephemeral, it was dominated by lesser reedmace (*Typha angustifolia*), sphagnum species were also recorded along with the occasional goat willow, however there were small pockets of open water to an approximate depth of 30cm. Habitat Suitability Index (HSI) scoring of the pond gave 'excellent' pond suitability for great crested newt. See Table 5 below.

Table 5: HSI calculation results

Pond ref	1
SI1 - Location	1
SI2 - Pond area	0.95
SI3 - Pond drying	0.5
SI4 - Water quality	0.67
SI4 - Shade	1
SI6 - Fowl	1
SI7 - Fish	1
SI8 - Ponds	0.8
SI9 - Terrestrial habitat	1
SI10 - Macrophytes	0.9
HSI	**0.86**



Photograph 3: Pond 1

Built Areas

4.23 TN 8 is part of the active coal stocking area for Monckton Coke Works.

Bare Ground

4.24 Bare ground on site consisted of the ballast area (TN8) that had previously been a rail siding until the late 1980's. See photographs 2 and 3 above.

Great Crested Newt (GCN)

4.25 A pond is situated within the site boundary. The pond is surrounded by rough grassland which would be termed as 'good quality' terrestrial habitat which would offer good opportunity for foraging and shelter. A walkover survey undertaken on the 9th April 2013 of a 500m area from development along with a study from a search on a 1 in 25,000 plan revealed there are a total of seven ponds within a 500m radius of proposed development. There are also three lagoons associated with Monckton Coke Works and Barnsley Canal. It is known that GCN are located within the local vicinity, a GCN translocation programme was recently completed within the adjacent Rabbit Ings area for which the data has been requested. A GCN Survey is currently being undertaken.

Bats

4.26 There are no mature trees within the immediate vicinity of the site. All of the trees / scrub are at a juvenile stage and offer limited potential for roosting bats. The buildings within the coke works are all modern in structure and also only offer limited roosting potential for bats. The trees / scrub / hedge bordering the grassland, the pond, the ballast area, and the adjacent railway line next to Barnsley Canal may be of some value for foraging bats.

It is recommended that a risk assessment for roosting / foraging bats is undertaken of the scrub and juvenile trees that would be loped / removed as part of the proposed development and an evening activity survey (transect and point counts) to assess number and species of bats along the route of the proposed rail link.

Reptiles

4.27 The field of 'unimproved' grassland containing the pond and scrubby areas and scrubby areas along the old rail link offer potential value for use by reptiles. The areas of ballast also offer potential basking areas.

4.28 Although no reptiles or signs of reptiles were recorded during the survey, results of the data search show that grass snake have been recorded recently within the locality. A reptile survey within the grassland area and along the proposed route of the rail link is recommended prior to commencement of the development.

Badger

4.29 A steep scrubby / tree lined embankment is situated to the east of the ballast area; the west of the ballast area also offered good habitat potential for the presence of badger. However surveys undertaken on both the 9th April and the 8th of May 2013 did not find any evidence or characteristic signs of badger or their setts within the site or immediately surrounding the site. Due to their potential presence within the wider area, highly

mobile nature of the species and readiness of which they can establish setts it is recommended that precautionary measures be undertaken prior to commencements of works to ensure that badgers are not harmed (thus maintaining legal compliance).

- The site and an area of 30m around the site will be reassessed for the possible presence of badger setts immediately prior to commencement of construction.
- Prior to construction a method statement will be produced to safeguard any local badger populations.

4.30 It is thought that the disused Barnsley canal may offer potential for the presence of water vole. However the canal is situated approximately 65m to the west of the development, the development would not impact upon the canal itself and there are a lack of other features that could support water vole within the site. This species does not require further consideration.

4.31 The 'unimproved' grassland and area of ballast bordered by scrub with grassland understory may provide potential value to dinger skipper. The main food plant - birds foot trefoil was recorded in abundance, particularly within the grassland field and it is recommended that a survey to search for adults and their eggs is undertaken prior to the commencement of development.

Nesting Birds

4.32 The scrubby areas and hedge within the semi-improved grassland field and scrub / juvenile trees alongside the ballast area may offer potential habitat for nesting birds. However no nests (old or new) were observed in at the time of survey. In order to reduce the potential of damaging nests, eggs or young, tree felling and ground level vegetation clearance will commence outside of the bird breeding season (i.e. outside of March to August inclusive). If it is not possible to avoid the bird breeding season entirely, a search should first be made for nesting birds by a qualified ecologist, and any active nests (if found) protected until the young have successfully fledged. Where no nests or any other bird matters are identified, a post survey period of two days will stand within which time clearance of that section may proceed. A further survey would be required if the vegetation surveyed was not removed within this time.

5.0 SUMMARY

5.1 The majority of the red line site boundary comprises land within the existing Coke Works and the ballast area which has been a rail siding previously in the 1980's, these habitats are limited ecologically consisting of a disturbed environment and area of hard-standing, however the ballast area is bordered either side by regenerated scrub (mainly silver birch) which will need to be lopped / removed as part of the development. The botanical ecological value of the habitat 'unimproved' grassland is diminished due to the encroachment of scrub which constituted approximately 65% of the area, however due to the translocation of a GCN population in the adjacent Rabbit Ings Country Park, this area, which includes a pond may be of value to GCN and a dedicated survey is currently being undertaken. No characteristic signs of badgers or their activities were recorded during surveys, however a checking survey prior to construction and production of a method statement has been recommended. There may be a low risk to breeding birds, however where possible tree felling and ground level vegetation clearance will take place outside the bird breeding period (March until August). Further surveys have been recommended to determine the use of the site by bats, reptiles and dingy skipper.

APPENDIX 1: TARGET NOTES

1. Grassland area on made or restored ground, appears to be unmanaged at present with large areas of scrub, some of which has been planted. See main text for species.
2. Ephemeral pond. Dominated by Typha with small pockets of open water to an approximate depth of 30cm.
3. Area comprising 'introduced' species including buddleia, broom, Lupin *Lupines spp,* and aquilegia *Aquilegia spp.*
4. An area of goat willow.
5. Dense scrub along brick wall bordering road species recorded included bramble and occasional hawthorn
6. Brick wall
7. Underpass under the road (Lund Hill Lane), which connects into the Rabbit Ings area.
8. Active coal stocking area, Monckton Coke Works.
9. Stacked tyres
10. Soil / rubble mound with tall ruderal vegetation.
11. Multi stemmed (5 stems) birch
12. 3-4m width of ballast bordered by birch scrub with occasional goat willow, hawthorn and rose recorded.

KEY

- Planning Application Boundary
- Other land under the control of the applicant
- Dense continuous scrub
- Unimproved grassland
- Tall ruderal vegetation
- Bare ground
- Built area
- Standing water
- Individual tree
- Target note

Rev	Description	Date	By	Chkd

Client: Hargreaves Services plc

Project: MONCKTON COKEWORKS PROPOSED RAIL SIDING

Plan Title: Phase 1 Habitat Plan

AES-LTD
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