

Preliminary Ecological Appraisal (PEA) Survey Report

For:	Mr E. J. Lidster
Site:	West Green Recycling, West Green Way, Barnsley, S71 5SN
Report Date:	26 th March 2024
Report Reference:	SQ-1358

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Natural England Bat Licence: 2015-12213-CLS-CLS



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West Green Recycling
West Green Way
Barnsley
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Client:	Mr E. J. Lidster
Site Name:	West Green Recycling, West Green Way, Barnsley, S71 5SN
Grid Reference:	SE 37844 08956
Report:	Preliminary Ecological Appraisal
Date of survey:	25 th September 2023
Surveyed by:	Joanne Toller BSc (hons), Natasha Estrada MRes, MCIEEM

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3	V2	Amendment	26 th March 2024	Joanne Toller BSc (hons), Estrada Ecology Ltd	Natasha Estrada BSc(hons), MRes, MCIEEM, Estrada Ecology Ltd



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The contents of this report have been produced with due consideration of current best practice guidance, and in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct.

This report should not be submitted as part of a planning application without any accompanying species-specific reports which may have been recommended herein.

Data within this report is valid for a maximum of eighteen months from the date of the survey. After this period, an updated site visit will be required to determine a new ecological baseline.

Summary

The survey site is approximately 1.51 hectares in size and is enclosed along the boundaries by block walls and palisade security fencing.

The site is currently operating within permitted use for the purposes of treating and managing non-hazardous construction and demolition waste, therefore is dominated by hardstanding and bareground with small buildings, aggregate piles, recycling plant machinery and heavy plant machinery are also present. One small compartment of scattered scrub dominated by Japanese Knotweed is present to the northeast.

In the wider landscape, outside the site boundary are compartments of deciduous woodland and arable land to the north, industrial/commercial sites to the west, and the residential area of Cudworth to the east.

Findings

The site provides hostile conditions for bats, badgers, aquatic mammals, reptiles, and amphibians, due to the dominance of hardstanding and hostile activities within the site. No evidence of use of the site by western European hedgehog (*Erinaceus europaeus*) was apparent.

Vegetation is sparse within the site restricted to the very edge of the northeastern boundary. The site is not deemed capable of supporting

important assemblages of invertebrates based on the domination of hardstanding and hostile environments created by the nature of site use.

No buildings or habitats with suitable features in relation to roosting bats were recorded within the site, being defined as negligible. The site itself recorded limited suitability for use by bats for commuting / foraging, due to the absence of suitable habitats.

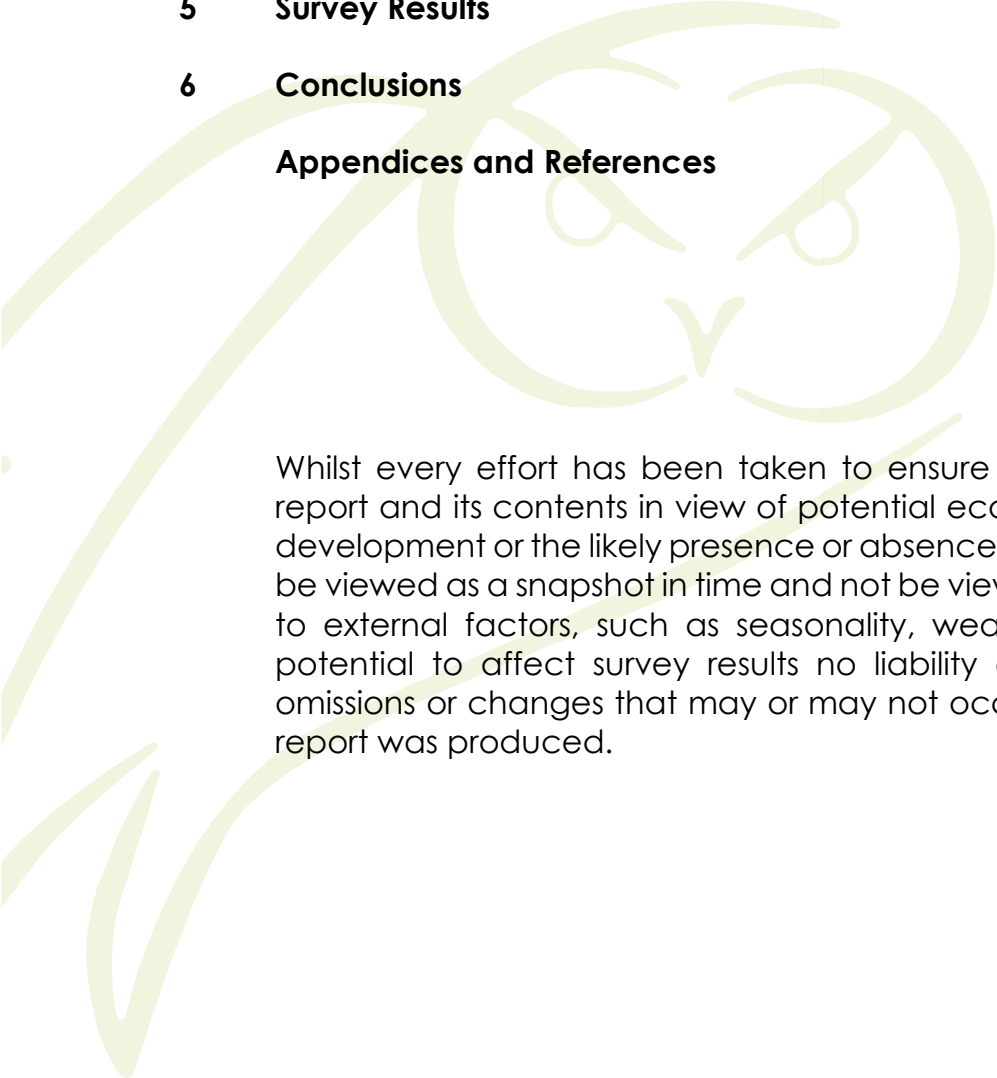
Suitable habitat was present adjacent to the eastern site boundary, where a Site of Special Scientific Interest (SSSI: Dearne Valley Wetlands) is located, providing potential to support foraging grounds or commuting lines for bats. It is therefore recommended that a suitable lighting scheme will be required to limit splay from artificial lighting towards the eastern site boundary.

Schedule 9 species, in the form of Japanese Knotweed (*Fallopia japonica*), was present forming the scattered scrub to the northeast of the site. Further considerations have been made within this report.

No impacts upon breeding birds are predicted, however it is recommended that if the removal of Japanese Knotweed is conducted during the breeding bird season typically between March and September a breeding bird survey is conducted prior to the commencement of removal works.

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Whilst every effort has been taken to ensure the accuracy of this report and its contents in view of potential ecological constraints to development or the likely presence or absence of species it must only be viewed as a snapshot in time and not be viewed as definitive. Due to external factors, such as seasonality, weather etc. having the potential to affect survey results no liability can be assumed for omissions or changes that may or may not occur after the date this report was produced.



1 Introduction and Background to the Site

1.1 Estrada Ecology Ltd was commissioned to conduct a Preliminary Ecological Appraisal (PEA) of West Green Recycling, West Green Way, Barnsley, S71 5SN to inform the development of the site.

1.2 Under current proposals, it is understood that the installation of an aggregate wash plant, store, laying of concrete slab, construction of boundary treatment (retrospective); and cladding to exterior of structure housing filter presses shall occur subject to necessary consents.

1.3 The habitats within the site are dominated by hardstanding, with one compartment of scattered scrub along the northeast boundary of the site.

1.4 Report Objectives

- Present the findings of the ecological survey.
- Assess the potential of existing on-site habitats to support protected or notable species.
- Evaluate any likely ecological impacts on protected and notable species or habitats because of the proposed development.
- Provide recommendations for any further species-specific survey and mitigation measures that may be required; and
- Provide habitat enhancement recommendations in line with the National Planning Policy Framework (NPPF, 2023).

1.5 Location of the Site

1.5.1 The survey site's central OS grid reference is SE 37844 08956.

1.6 Surrounding Area

1.6.1 The wider landscape contains compartments of deciduous woodland and arable land on all elevations. To the east and west outside the site boundaries are industrial, commercial and residential estates.

1.6.2 The site is located approximately 4 km northeast of Barnsley town centre.

Figure 1: The survey site within its wider setting.



Google Earth

2 Protected Species Legislation

- 2.1 Relevant legislation includes the Conservation of Natural Habitats and Species Amendment (EU Exit) Regulations which came into force on 31 December 2020.
- 2.2 The Natural Environment and Rural Communities (NERC) Act came into force on 1 Oct 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England, as required by the Act. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.
- 2.3 The UK Post-2010 Biodiversity Framework was developed in response to the Convention on Biological Diversity's Strategic Plan for Biodiversity 2011 – 2020. Its five strategic goals and twenty biodiversity targets supersede the UK Biodiversity Action Plan.

2.4 Environment and Biodiversity

2.4.1 Under the National Planning Policy Framework (NPPF, 2023), local planning authorities should aim to conserve and enhance the natural environment when determining planning applications. Local planning authorities also have an obligation to seek opportunities to further enhance the conservation status of Species and Habitats of Principle Importance.

2.4.2 Species and Habitats of Principal Importance for the conservation of biodiversity in England (JNCC, 2009) are covered under section 41 of the Natural Environmental and Rural Communities (NERC) Act (2006). Species and habitats listed within Section 41 need to be taken into consideration by a public body when performing any of its functions, such as assessing planning applications.

2.5 Wildlife

2.5.1 European Protected Species, such as bats (all species) and great crested newt, are afforded protection under the Conservation of Habitats and Species Regulations 2017, as well as under the Wildlife and Countryside Act 1981 (as amended) and the Countryside Rights of Way Act 2000. It is an offence to:

- Deliberately or recklessly capture, injure, or kill any wild animal of a European protected species.
- Deliberately or recklessly disturb any such animal.
- Damage or destroy their breeding site or resting place; and
- Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead animal, or any part of, or anything derived from these species.

2.5.2 Disturbance of European Protected Species constitutes any activity which is likely to:

- To impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or, in the case of animals of a hibernating or migratory species, to hibernate or migrate; and
- To significantly affect the local distribution or abundance of the species to which they belong.

2.6 UK Legislation

2.6.1 Breeding birds (all species) are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally kill, injure or take any wild bird and to take, damage or destroy the nest (whilst being built or in use) or eggs. Schedule 1 species are afforded additional protection from disturbance at or near nest sites, including reckless disturbance under the Countryside Rights of Way (CRoW) Act 2000.

2.6.2 Reptiles (common species of adder, grass snake, common lizard, and slow worm) are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally kill, injure and trade these animals.

2.6.3 Amphibians (smooth newt, palmate newt, common frog, and common toad) are protected by the Wildlife and Countryside Act 1981 (as amended). The sale, barter, exchange, transporting for sale and advertising to sell or to buy are an offence.

2.6.4 Badgers are protected by the Protection of Badgers Act 1992 and under the Wildlife and Countryside Act 1981 (as amended). It is an offence: to wilfully, or attempt, to kill, capture, ill-treat or injure any badger; to obstruct, destroy or damage a badger sett or to disturb a badger whilst within its sett; to sell or offer for sale a live badger, or have possession or control of a live badger; and marking a badger or attaching any ring, tag, or other marking device to a badger.

2.6.5 Otters are a European Protected Species (EPS) and are also fully protected under Schedule 5 of the Wildlife and Countryside Act 1981. It is against the law to capture, kill, disturb, or injure otters (on purpose or by not taking enough care); damage or destroy a breeding or resting place (deliberately or by not taking enough care); obstruct access to their resting or sheltering places (deliberately or by not taking enough care); and possess, sell, control or transport live or dead otters, or parts of otters.

2.6.6 Water voles are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 and are a priority conservation species. It is against the law to:

- intentionally capture, kill, or injure water voles.
- Damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care).
- disturb them in a place of shelter or protection (on purpose or by not taking enough care); and
- possess, sell, control or transport live or dead water voles or parts of them (not water voles bred in captivity).

3 Survey Methodology

3.1 Desktop Survey

3.1.1 A biological data records search was requested from Barnsley Biological Records Centre for a 1 km radius from the central grid reference.

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

3.1.3 Furthermore, consultation with MAGIC was undertaken to ascertain any European Protected Species Mitigation Licences granted within a 1 km radius from grid.

3.1.4 Natural England's Geoportal: England- wide data for Great Crested Newts was analysed for any records within a 1 km radius from grid. The dataset contains eDNA pond surveys for district level licensing (England).

3.2 Field Survey

3.2.1 The survey area was investigated on foot to ascertain habitats on site and the potential of those habitats to support ecological diversity. The vegetation types present within the site were assessed by experienced ecologist; Joanne Toller (hons) using methodology based on that

described in the JNCC Handbook for Phase 1 habitat survey (2010, revised 2016) and CIEEM's Guidelines for Ecological Impact Assessment (2018).

3.2.2 Habitats and features with potential to support protected and / or conservation priority faunal species, together with any field signs of such species were recorded on the field map using target notes. A search was undertaken for the following key habitats and/or field signs for protected or conservation priority species highlighted in Table 1.

3.3 Preliminary Roost Assessment

3.3.1 Where present, buildings and trees were subject to a ground level roost assessment and preliminary roost assessment to determine their suitability to support roosting bats. The inspections were carried out in accordance with current best practice guidance (Collins, 2023).

3.3.2 Trees and the quality of on-site habitats were then categorised based on the classification criteria in 'Bat Surveys for Professional Ecologists' (Collins, 2023). Classification criteria is presented below:

- **Negligible:** a structure or tree with features unlikely to be used by roosting bats. Habitats on site unlikely to be used by foraging or commuting bats.
- **Low:** a structure or tree with one or more potential roost sites that may be utilised by opportunistic bats but are not suitable for use on a regular basis or by a large number of bats. Habitat could be used by a small number of foraging or commuting bats.
- **Moderate:** a structure or tree with one or more potential roost sites that may be utilised on a regular basis but unlikely to support a roost of high conservation status. Continuous habitat that provides good connectivity within the wider landscape and offers foraging opportunities.
- **High:** a structure or tree with one or more potential roost sites suitable for use by a larger number of bats on a regular basis and for longer periods of time. Continuous high-quality habitat that is well connected within the wider landscape

and offers high-quality foraging habitat. The site is close to and connected to known roosts.

3.4 Timing

3.4.1 The survey was conducted 25th September 2023.

3.5 Weather Conditions

3.5.1 Weather conditions at the time of the site visit were dry, with no cloud cover, moderate southwest breeze, and temperatures of 17°C.

Table 1: Key habitats and field signs of protected and priority species.

Taxon	Indicative habitats	Field signs
Bats	Roosts – Trees, buildings, bridges caves etc. Foraging areas – e.g., parkland, water bodies and streams, wetlands, woodland edge, hedgerow Commuting routes – linear features (e.g., hedgerows).	In or on potential roost sites: Droppings stuck to walls; urine spotting in roof spaces; oil from fur staining around roost entrances; feeding remains (e.g., moth wings).
Great crested newt	Ponds within 500m of suitable habitat within the site boundary. Suitable (terrestrial) habitat includes rough grassland, scrub and woodland, log and rubble piles and other debris, animal burrows.	Eggs, Individuals of all life stages. Egg rolled plants.
Reptiles	Rough grassland, log and rubble piles, compost heaps.	Sloughed skins; eggs, individuals.
Birds	Trees, scrub, hedgerow, field margins, grassland.	Nests; droppings below nest sites (especially in buildings of trees); tree holes.
Badger	Found in most rural and many urban habitats.	Excavations and tracks: sett entrances, latrines, hairs, well-worn paths; prints; snuffle holes.
Water vole	Water bodies / water courses.	Burrow entrances; prints; latrine areas; faeces; feeding stations.
BAP invertebrates	Each butterfly species has its own habitat requirements determined by the food plant of the caterpillar, the nectar source for the adult butterfly and the conditions needed for the caterpillar to survive and then pupate successfully.	Eggs, larva, Pupa, adult butterfly. Habitat type and presence of food plants.

3.6 Personnel

3.6.1 The survey was undertaken by experienced assistant ecologist Joanne Toller BSc (hons), with over six years of ecological surveying experience including phase one habitat surveys and Biodiversity Net Gain assessments.

4 Ecological Constraints

- 4.1 It should be noted that this ecological appraisal provides baseline ecological data at the time of survey only and does not include flora or fauna which may be present at different times of the year.
- 4.2 An absence of species records from within a search radius does not provide confirmation that a species is absent from within the search area.
- 4.3 All areas of the site were accessible for survey.

5 Survey Results

5.1 Desktop Survey Results

- 5.1.1 A total of over eight-thousand biological records were returned from Barnsley Biological Records Centre for a 1 km radius from grid. The list of protected and notable species data records is available upon request. In summary, the following records were returned:

- Twenty-five amphibian records were returned for the site radius, including common frog (*Rana temporaria*), smooth newt (*Lissotriton vulgaris*), common toad (*Bufo bufo*), and palmate newt (*Lissotriton helveticus*), dated between 1978 and 2022.
- Eleven reptile records were returned for red-eared terrapin (*Trachemys scripta subsp. elegans*), and grass snake (*Natrix helvetica*) dated between 1999 and 2022.
- Eurasian badger (*Meles meles*) records were considered within the findings of this report.
- No Eurasian otter (*Lutra lutra*) records were returned for the search radius.
- Thirteen records were returned for hedgehog (*Erinaceus europaeus*) for the site radius, dated between 1983 and 2022.
- Thirty-four records were returned for water vole (*Arvicola amphibius*), dated between 1982 and 2015.
- Seventeen bat records were returned for the site radius, including common pipistrelle (*Pipistrellus pipistrellus*), daubenton's bat (*Myotis daubentonii*), noctule bat (*Nyctalus noctule*) and unidentified bat species. Records returned were dated between 1979 and 2022 the majority recorded at Carlton Marsh, a Local Wildlife Site.



- The remaining records comprise of further terrestrial mammal records, invertebrate records, bird records, bony fish records and flowering plant records.
- A full list of biological records is available upon request.

5.1.2 Consultation with MAGIC returned one European Protected Species Mitigation Licence granted within a 1 km radius from grid.

Table 2: European Protected Species Mitigation License granted within a 1 km radius from grid.

Date	Licence Reference	Species	Purpose	Distance from site
2010	EPSM2009-532	Common pipistrelle	Destruction of a resting place	880 meters northeast

5.1.3 No records for Great crested newt presence were recorded within a 1km radius from grid via consultation with Natural England's eDNA pond surveys for District Level Licensing (England).

5.1.4 The site lies just within an amber risk zone for great crested newt. Amber zones contain main population centres for great crested newt and comprise important connecting habitat that aids natural dispersal (Natural England 2023).

5.2 Habitat Description

5.2.1 Overview

5.2.1.1 The Phase 1 habitat mapping description is, predominantly:

- A2.2 Scattered Scrub
- J2.5 Wall
- J3.6 Buildings
- J4 Hardstanding

5.2.1.2 A list of all species recorded on the site during the survey can be found in Appendix Two.

5.2.2 Scattered Scrub

- 5.2.2.1 In one small compartment at the northeast of the site, vegetation was growing between the palisade fencing and the hardstanding substrate. The vegetation mostly comprised of native species including bramble (*Rubus fruticosus* agg.) and common nettle (*Urtica dioica*). However, Japanese knotweed was also recorded within the vegetation that appears to have encroached from outside the site boundary through the fence line.

Figure 2: Scattered scrub



5.2.3 Wall

- 5.2.3.1 Site is enclosed with newly built concrete walls reducing potential for wildlife corridors and inter dispersal between the site and adjacent habitat by terrestrial species. Sections of metal fencing north of site could allow access, however due to the hostile environment via the sites work practices and the absence of ecologically functional habitats, this is deemed unlikely.

Figure 3: Example of wall and fencing on site.



5.2.4 Buildings

5.2.4.1 Three buildings were present within the site. The site office/reception, substation and store.

5.2.4.2 The site office and reception comprise two metal containers stacked on top of one another with stairs leading to the upper section. The site boundary is located behind the office, bordered with both brick wall and metal fencing. Some gaps are present where the two containers meet, and a space is present underneath the containers where it is housed upon cinderblocks. However, these features were assessed to be negligible for bat roost suitability due to the intensity of direct artificial light splay on the building along with an absence of suitable features.

Figure 4: Site office and reception



- 5.2.4.3 The store is a single storey structure with brick walls, felt roof and a double door with vents on the western aspect of the building. These appear to be newly erected structures resulting in a good structural condition and sealed throughout. No potential roost features were noted therefore, the structures have been classified as containing negligible bat roost suitability.

Figure 5: Store



- 5.2.4.4 All three buildings were deemed to provide negligible suitability to support bats for roosting or as a place of shelter.

5.2.5 Hardstanding

- 5.2.5.1 The site was dominated by hardstanding throughout from the road entrance to the main site.
- 5.2.5.2 Whilst piles of what appear to be recently stored aggregates were recorded on site, the majority of these appeared to be temporarily in situ. At the time of survey, rubble and aggregates were recorded to be deposited and removed continually throughout the time on site. Given the temporary nature of storage and the high level of vehicular movements within this area, it is deemed unlikely that the temporary aggregate piles would support hibernacula for common amphibians and mammals.

Figure 6: Road entrance.



- 5.2.5.3 The main site is fully utilised by industrial equipment and machines, creating a hostile environment with regular vehicular movements.

Figure 7: Main site hardstanding.

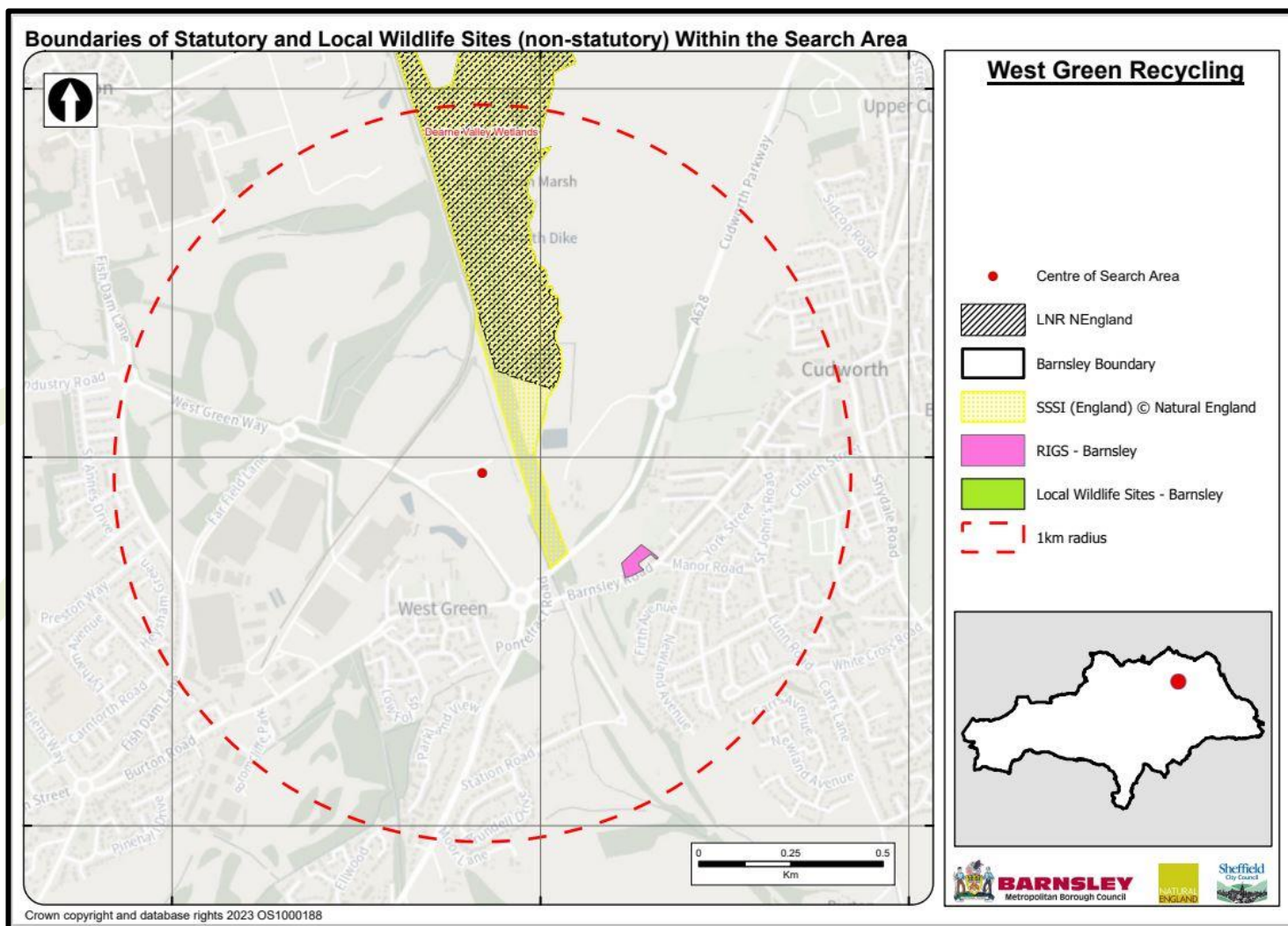


- 5.2.5.4 The areas of hardstanding were deemed to provide no intrinsic ecological value in their current condition.

5.3 Designated Sites

- 5.3.1 Consultation with MAGIC map returned two Statutory Designated Sites within a 1 km radius of grid. Carlton Marsh, a Local Nature Reserve (LNR) is located 215 meters northeast of the site. Dearne Valley Wetlands a Site of Special Scientific Interest (SSSI) is present adjacent to the eastern boundary of the site.
- 5.3.2 One historic Statutory Designated Site was also returned within a 1 km radius from grid. Class 2 Listed Building (England) freestanding chimney at Bleachcroft Farm (*Reference: 1192180*), located 150 meters east of the site.
- 5.3.3 Two non-statutory designated sites are present within a 1 km radius from grid as shown in Figure 8. A Local Wildlife Site containing a Regionally Important Geological Site (RIGS) is located three hundred and eighty meters southeast of the site.

Figure 8: Map of Non-Statutory Designated Sites within 1 km of grid.



5.4 Priority Habitats

5.4.1 One priority habitat; Open Mosaic Habitat on Previously Developed Land (OMH) is recorded within the site boundary via consultation with Magic Map.

5.4.2 Priority habitats present within the 1km search radius but outside the site boundary includes:

- Open Mosaic Habitat on Previously Developed Land (OMH) is recorded within the site boundary and encompasses a larger compartment to the northwest of the site.
- Deciduous Woodland, the closest compartment being outside the eastern site boundary.
- Priority Habitat Inventory (non-priority) – Good Quality Semi-Improved Grassland - the closest compartment being 880 meters northeast.

5.4.3 The site is currently operating within permitted use for the purposes of treating and managing non-hazardous construction and demolition waste, therefore is dominated by hardstanding and bareground with small buildings, aggregate piles, recycling plant machinery and heavy plant machinery are also present. One small compartment of scattered scrub dominated by Japanese Knotweed is present to the northeast.

5.4.4 The site was assessed as to whether it qualifies under the habitat description as Open Mosaic Habitat on Previously Developed Land as outlined in Rising et al., (2010).

5.4.5 Based on field sign evidence the land within the site boundary does not meet the criteria for open mosaic habitat as highlighted in (Table 3)

Table 3: Qualifying criteria for identifying open mosaic habitat (Rising et al 2010).

Criterion	Description	Applicable to the site
1	The site is at least 0.25ha in size. This minimum size may be part of a much larger site containing other habitats or developed land.	Yes

2	Known history of disturbance at the site or evidence that soil has been removed or severely modified by previous use(s) of the site. Extraneous materials/ substrates such as industrial spoil may have been added.	No, not historical industrial use. Site in current usage and disturbance is ongoing and site currently in use for industrial waste purposes.
3	The site contains some vegetation. This will comprise early successional communities consisting mainly of stress tolerant species (e.g., indicative of low nutrient status or draught). Early successional communities are composed of a) annuals or b) mosses/ liverworts or c) Lichens or d) ruderals or e) inundation species or f) open grassland or h) heathland.	No
4	The site contains unvegetated, loose bare substrate and pools may be present.	Yes
5	The site shows spatial variation, forming a mosaic of one or more of the early successional communities plus bare substrate, within 0.25ha.	No

5.4.6 No species listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) were recorded within the application boundary.

5.4.7 One schedule 9 non-native/invasive species was recorded within the site boundary. Japanese Knotweed was recorded to the northeast of the site. Further recommendations have been made within this report.

5.5 Protected Species

5.5.1 Badger

5.5.1.1 No Eurasian badger records were returned for the site within 500 metres.

5.5.1.2 Habitats within the entirety of the site provide hostile conditions for badger to utilise, due to the dominance of hardstanding, buildings and high levels of regular disturbance. Furthermore, no field sign evidence was recorded during the survey.

5.5.1.3 No further surveys are recommended at this juncture.

5.5.2 Bats

5.5.2.1 The buildings on site were assessed externally for their potential to support bats within roosting features located around the building. No features were recorded on the building elevations, and all buildings were deemed negligible for bat roosting (2015-12213-CLS-CLS). No field sign evidence was found.

5.5.2.2 The habitats within the central areas of the site were deemed to be hostile for bats. The habitats outside the site boundaries were deemed to provide suitable foraging and commuting grounds for bats, due to the SSSI (Dearne Valley Wetlands) located adjacent to the site's eastern boundary. A tunnel located outside the site boundary and unconnected, recorded suitability to be utilised by bats for roosting or as a place of shelter. Under current proposals, no encroachment on this area is predicted and it is understood a new wall is to be created in this area, the distance of which is unlikely to impact the tunnel via encroachment or direct impacts.

5.5.2.3 No further surveys are recommended at this juncture.

5.5.3 Amphibians

5.5.3.1 Twenty-five amphibian records were returned from the records search within a 1 km radius.

5.5.3.2 No waterbodies were recorded within the site boundary, and none were recorded to feed directly into the site. The site provides negligible aquatic habitat for amphibians.

5.5.3.3 The site is a hostile environment and lacks any suitable environment for amphibians and no further surveys are recommended.

5.5.4 Reptiles

5.5.4.1 Eleven reptile records were returned for the search radius.

5.5.4.2 The site offers negligible terrestrial habitat for supporting reptile populations, due to the dominance of hardstanding and hostile activities on site.

5.5.4.3 With due consideration to the scheme design, impacts on reptiles are deemed highly unlikely and no further surveys are recommended.

5.5.5 Breeding Birds

- 5.5.5.1 No suitable habitat is present within the site to support breeding birds. The buildings within the site have no potential access.
- 5.5.5.2 No historical nesting or breeding activity was recorded during the site visit upon the buildings or within the overhanging branches of trees from outside the boundary. Furthermore, no field sign evidence of discarded eggs, nesting materials or bird splashings were recorded. The scattered scrub compartment was also surveyed and lacked substance and structure to support breeding birds.
- 5.5.5.3 It is deemed that breeding birds will not be impacted by the scheme design. No further survey is need at this juncture. However, if the Japanese Knotweed is to be removed recommendations for precautionary measures should be adhered to in respect of breeding birds.

5.5.6 European Hedgehog

- 5.5.6.1 No evidence of European hedgehog (*Erinaceus europaeus*) was recorded during the site visit. The site is hostile to this species due to the dominance of hard standing and no natural corridors.
- 5.5.6.2 It is unlikely that the species will be adversely impacted by the proposed development. No further survey is recommended at this juncture.

5.5.7 Riparian mammals

- 5.5.7.1 No suitable habitats are present within the site boundary to support riparian mammal species.
- 5.5.7.2 The habitats outside the site boundaries include a watercourse within the SSSI (Dearne Valley Wetlands) located adjacent to the site's eastern boundary. The eastern boundary is formed from blockwork structures and security fencing for the majority creating a ground level barrier preventing mammals from entering the site at this intersection. Under current proposals it is understood a new wall is to be created in this area replacing the fencing, no encroachment on the SSSI habitats including woodland and watercourse is predicted. No direct or indirect impacts are predicted in respect of riparian mammals, no further survey effort is recommended.

5.5.8 Other Species

- 5.5.8.1 The site does not support suitable habitat for any other protected or significant fauna, such as: barn owl (*Tyto alba*), brown hare (*Lepus europaeus*), dormouse (*Muscardinus avellanarius*), or white-clawed crayfish (*Austropotamobius pallipes*).

6 Conclusions

6.1 Designated Sites

- 6.1.1 Two Statutory Designated Sites were recorded within a 1 km radius from grid, with one being an SSSI (Dearne Valley Wetlands) found adjacent to the east boundary of the site.
- 6.1.2 Two Historic Statutory Designated Sites were recorded within a 1km radius from grid.
- 6.1.3 Two non-statutory designated sites were present within 1 km of grid.
- 6.1.4 No direct impacts are predicted via encroachment. Possible indirect impacts to the SSSI which lines the outer east boundary of the site are predicted from site works. This SSSI has potential and suitability for bat foraging and feeding ground. Further recommendations have been made in this report.
- 6.1.5 Further indirect impacts have been considered within this report including the woodland and watercourse habitats to the east. The majority of the works to install the wash plant located towards the western boundary are complete. The blockwork walls are to be installed along the eastern and southern boundaries reducing any indirect impacts from pollution and debris entering the SSSI to the east.
- 6.1.6 During operating use the wash plant is a self-contained processing plant that recycles the waste and water within a closed system. The site is designed to drain surface water towards its centre and is collected to prevent it entering the sites adjacent without being treated. Therefore, it is deemed that no indirect impacts will occur on the adjacent habitats including the watercourse.



6.2 Habitats and Vegetation

- 6.2.1 One priority habitat; Open Mosaic Habitat on Previously Developed Land (OMH) is recorded within the site boundary via consultation with Magic Map. Assessment of the habitats within the redline site boundary indicate that OMH is not present within the site.
- 6.2.2 No trees which feature on the Ancient Tree Inventory were recorded on site.
- 6.2.3 No protected or notable flora was recorded during the survey period.
- 6.2.4 One Schedule 9 non-native, invasive species of the Wildlife and Countryside Act 1981 (as amended), was recorded during the survey.

6.3 Recommendations for Further Survey/mitigation

6.3.1 Bats

- 6.3.1.1 Adjacent to the east boundary of the site, an SSSI (Dearne Valley Wetlands) is located, providing potential to support foraging or commuting bats.
- 6.3.1.2 It is therefore recommended that a suitable light scheme is implemented to mitigate any potential disturbance along the boundary line from light splay within and around the eastern boundary of the site.

6.3.2 Schedule 9 Invasive Non-Native Species

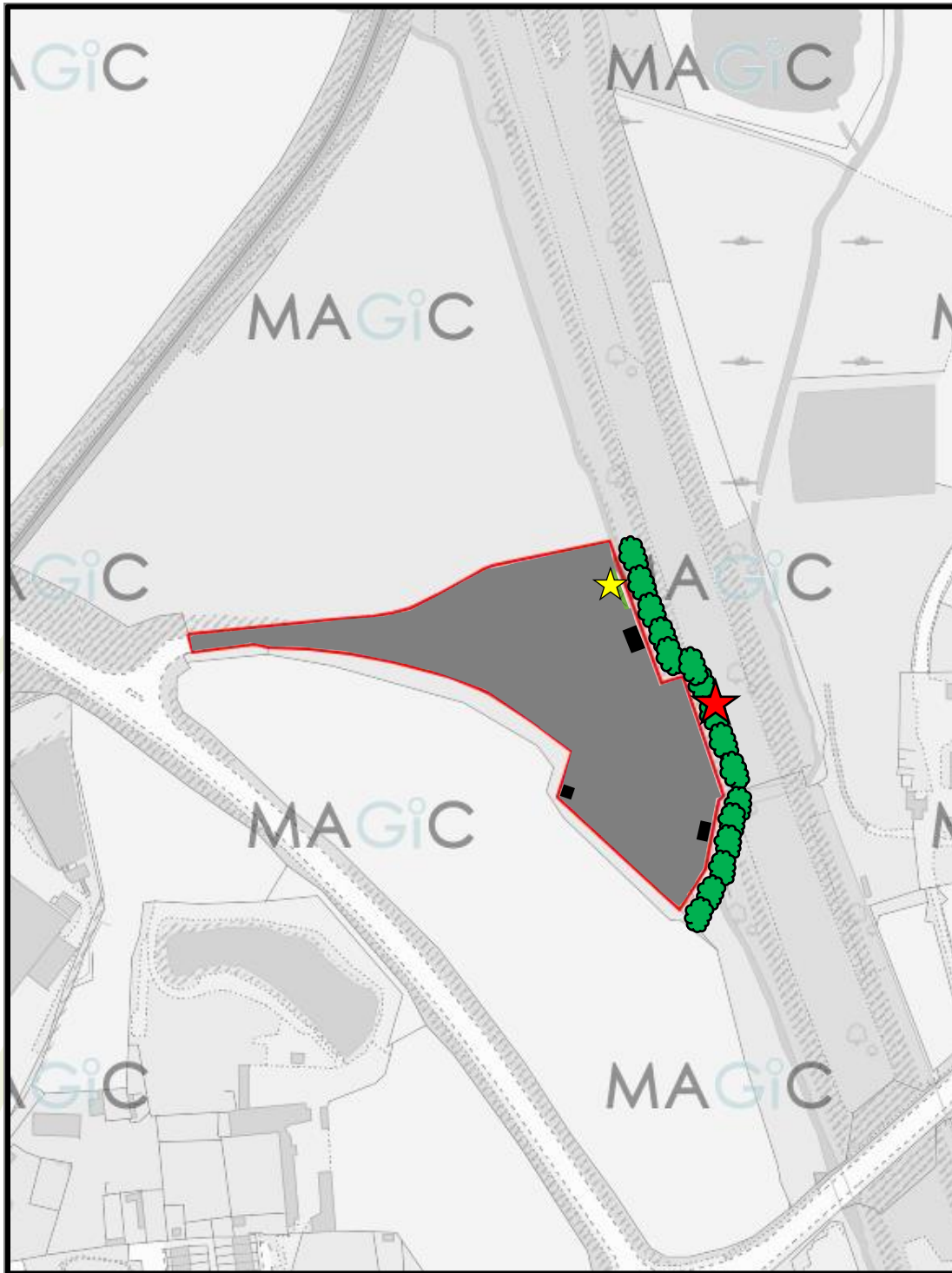
- 6.3.2.1 Japanese knotweed was present to the northeast of the site, with evidence of the species spreading from outside of the boundary into the site.
- 6.3.2.2 Japanese knotweed is a highly invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). It is also extremely easily spread, with or without human interaction.
- 6.3.2.3 It is strongly recommended that an invasive species specialist is consulted in relation to the removal of the plants, as simple vegetation removal practices could potentially lead the spread of the species, resulting in a breach of biosecurity.

6.3.3 Breeding Birds

- 6.3.3.1 The small compartment of scattered scrub dominated Japanese Knotweed is currently sparse and lacks structure to support breeding birds. However, if removal is scheduled within the breeding bird season typically between March and September then a pre-works survey would be required to confirm the absence of breeding birds.










Appendix One: Phase One Habitat Map



MAGiC Map

West Green Recycling
West Green Way
Barnsley
S71 5SN

KEY	
	Site Boundary
	Building
	Hardstanding
	Scattered scrub
	Woodland
	Target note – Japanese Knotweed (<i>Fallopia japonica</i>)
	Target note – Potential bat corridor along outside of eastern site boundary, mitigation measures required for foraging bats so there is no light splay along treeline



Appendix Two: Species List.

Vernacular	Taxon
Flora	
Bramble	<i>Rubus fruticosus</i> agg.
Common nettle	<i>Urtica dioica</i>
Japanese Knotweed	<i>Fallopia japonica</i>



References

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