

Northern Gateway

Area GMA 1.2 - Ecological Constraints and Opportunities: High-Level Walkover A104444-7

June 2021 Prepared by WYG Environment Planning Transport Limited On behalf of Northern Gateway Development Vehicle LLP.



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- Appendix B: Wildlife Legislation
- Appendix C: Relevant Planning Policy and Legislation
- Appendix D: Survey Calendar



1.0 Introduction

WYG has been commissioned by Northern Gateway Development Vehicle LLP ('NGDV') to undertake a high-level desktop and site reconnaissance constraints and opportunities review of a site known as Area GMA 1.2 ('the site') at the proposed Greater Manchester Northern Gateway development area.

Part of the site is identified as Allocation GM 1.2 in the draft Greater Manchester Strategic Framework (GMSF). If forms part of the strategic cross-boundary 'Northern Gateway' allocation positioned around the intersection of the M60, M62 and M66 motorways.

1.1 Instruction

This desk top assessment and constraints review provides information to support the promotion of the site for allocation in the Greater Manchester Spatial Framework (GMSF) and the assessment work will inform the proposed Masterplan for the site.

This report has assessed the land shown on A104444-5-MAN-N-02 as this area was identified by the NGDV for baseline technical and environmental assessment. However, only part of this wider assessment site is being identified for allocation for development within the GMSF (land to the south east of Simister).

1.2 Objectives

The high-level walkover survey undertaken in June 2020 follows a desktop; site reconnaissance; constraints; and opportunities review undertaken in December 2019 by WYG¹. However, in June 2020 access to the majority of the site was permitted (see Section 2.5 for areas with no access). The overall

¹ Northern Gateway – Ecological Constraints and Opportunities Report; A104444-5. WYG December 2019 A104444-7 www.wyg.com creative minds safe hands



objectives of the report are to collect information on key habitat quality for the following:

- Habitats of Principal Importance (as identified during the high-level constraints and opportunities exercise).
- Water features.
- Woodland; and
- Hedgerows

This will provide insight of the quality of the blue and green infrastructure currently present and will provide an early indication of any ecologically valuable areas. Note this does not replace a Phase 1 habitat survey. Report Conditions are provided in Appendix A.

1.3 Proposed Development

It is understood at this stage that Area GMA 1.2 will be developed for residential purposes as well as a potential primary school and local centre, with associated spine roads, public open space, and soft and hard landscaping.



2.0 Site Setting

2.1 Location and Size

Key details for the two parcels comprising area GMA 1.2 are summarised in the Table 2.1 below.

Table 2.1: Key details for Area GMA 1.2

Site Specifics	Parcel 1	Parcel 2
Address	Land to the south of the	Land south of the M62
	M62 & east of the M60	and west of the M60.
	junction (Simister Island).	
Grid	383939, 405837	382841, 405490
Reference		
Site Area	146 Hectares	22 Hectares

2.2 Site Description

Both parcels of land, together forming the 'site' currently comprise agricultural land with local and main roads crossing through the proposed development area. There are a number of farms and residential properties within the site boundary.

Both parcels have overhead power lines running through them with them; being more notable on the land to the west and south of the M60.

Table 2.2: Site descriptions for site boundaries

Boundary	Description of Parcel 1 (Land to the south of the M62 & east of the M60)	Description of Parcel 2 (Land to the west and south of the M60)
North	M62 carriageway and agricultural land	Simister roundabout and M60 junction 18



East	Heywood Old Road	M60 carriageway with
	(A6045), residential	residential properties and
	properties and	agricultural land beyond
	agricultural land	
South	M60 carriageway and	Heaton Park
	residential properties with	
	agricultural land beyond	
West	M60 carriageway and	High School and
	residential properties with	residential properties.
	agricultural land beyond	

2.3 Desk Study

2.3.1 Previous Surveys

An environmental based site walkover was undertaken on 29th November 2019 and 3rd December 2019. Site observations were typically limited to public bridleways which were heavily overgrown and inaccessible in places. The small tracks leading to some of the properties were indicated to be private roads and heavily pot holed. The ground was undulating and is probably indicative of the underlying geology.

The land to the west and south of the M60 comprises of mainly agricultural land with several items of note including overhead electricity infrastructure with associated pylons, areas of stockpiled materials (including wood) and standing water.

The land from to the south of the M62 & east of the M60 was identified as mainly agricultural land moving from south to north the following items of note were identified; boggy areas, fly tipped waste (particularly in the centre and north west, in the north west the material included an oil drum, oil containers, plastic, metal containers, a potential tank and wood), electricity substations, stockpiles of wood and bunded soil. Possible asbestos containing materials



were identified at one location in the west. In the northern centre of the site a solar farm was identified accompanied with a number of wind turbines,

The topography is undulating with surface water features (typically ponds, streams, standing water and ditches). The site is open to the public with some vehicle access routes and bridleways.

A high-level ecological walkover of land within the red line boundary (A104444-5-MAN-N-02-REV-B) of the site was completed on 20th November 2019 by Jessica Yorke GradCIEEM², WYG Consultant Ecologist. The walkover was also restricted to viewing land within the red line boundary from public rights of way only, using binoculars where appropriate. During the walkover the following observations were made:

- indicative broad habitat types represented on the visible parts of the site (based on the Phase 1 Vegetation and Habitat Survey³ categories).
- potential for habitats to support protected (and notable) species; and
- scope for retention of ecological features and opportunities with any future masterplan.

The walkover survey could only be completed from public rights of way therefore some areas of the site could not be accessed. This assessment was completed using on site observations supplemented by desktop information including aerial and OS mapping. The high-level walkover did not include observations from within a set buffer area around the site unless it was to note a broad habitat feature of possible relevance. No detailed habitat mapping was carried out, however the plans produced provided broad overviews of potential ecological constraints and requirements for potential further surveys.

² Graduate member of the Chartered Institute of Ecology and Environmental Management

³ JNCC, (2010), Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit, JNCC: Peterborough.



2.3.2 Desk Based Study: Previous Reports

A desk study was undertaken for the Ecological Constraints and Opportunities Report in December 2019. The aim was to obtain information on statutory and non-statutory sites of nature conservation interest and relevant records of protected/notable species within the site and a 2 km search buffer. Information was requested from the Greater Manchester Ecological Unit (GMEU) for information on any nature conservation designations and protected or notable species records within 2 km of the site. A search for relevant information was also carried out on MAGIC⁴; DEFRA's interactive, web-based database for statutory designations and information on any European Protected Species Licences (EPSL) applications that have been granted in the local area. A detailed review of aerial and OS mapping was also undertaken.

2.4 Site Walkover

A high-level walkover survey was undertaken by Candice Howe MCIEEM⁵ FISC Level 3⁶, WYG Senior Ecologist on Tuesday 2nd June 2020, Monday 8th June 2020 and Tuesday 9th June 2020. This survey was undertaken as access had been permitted for the majority of the site (see Section 2.5 for areas with no access). The weather conditions were mostly dry and sunny with some cloud cover and temperatures between 12°C and 16°C.

The vegetation and broad habitat types within the site were noted during the survey with a focus on key habitat quality for HPI and blue/green infrastructure e.g. water features, woodlands and hedgerows. The site was

⁶ Field Identification Skills Certificate from the Botanical Society of Britain & Ireland A104444-7

⁴ MAGIC www.magic.gov.uk - DEFRA's interactive, web-based database for statutory designations and information on any EPSL applications that have been granted in the local area since 2015

⁵ Full member of the Chartered Institute of Ecology and Environmental Management

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also appraised for its broad suitability to support notable and protected species.

2.5 Limitations

The high-level walkover was undertaken to identify ecological constraints and opportunities to facilitate the future focus of ecology within early masterplan process and therefore the following considerations need to be taken in to account when reading this report:

- An extensive search for protected/notable or invasive plant species was not undertaken.
- An extensive search for protected/notable fauna species (e.g. badger • Meles meles, water vole Arvicola amphibius and white clawed crayfish Austropotamobius pallipes) was not undertaken.
- An extensive ground-based assessment of all trees or buildings/built • structures for roosting bat suitability has not been undertaken.
- Ponds within the site boundary were appraised only in order to inform preliminary masterplans (rather than to inform detailed mitigation strategies) and Habitat Suitability Indices were not undertaken (as majority of the waterbodies were dry during the survey); and
- Bat activity surveys were not undertaken on the basis that the • precautionary principal will be applied, and all valuable features will be retained within the masterplan.

At this stage in the scheme, no detailed habitat mapping has been carried out so identification of specific constraints for each parcel of land has not been completed. However, this report does provide an overview of potential constraints through characterisation of habitats represented throughout the site and potential for these habitats to support protected species.

No species-specific surveys have been carried out at this stage, but the information derived from the assessment are considered adequate to inform



the next stage of this project. More detailed site-specific surveys, including a full extended Phase 1 habitat survey for each area and Phase 2 protected species surveys will be required as plans progress.

The optimal period to undertake an extended Phase 1 habitat survey is between April and September. The high-level walkover survey was completed in June, which is within the optimal survey window, therefore there are no seasonal limitations associated with the walkover survey.

Access was restricted to areas within the client's ownership. The large fishing pond in Parcel 1 and a small equestrian facility were locked with no access permitted (as shown on Figure A104444-7-GMA1.2). Residential and commercial properties/gardens/land outside the client's ownership were not accessed but viewed from a distance where possible. This is not considered to be a significant limitation to the overall conclusions at this stage as the conclusions take into consideration the high-level nature of the scope.

The details of this report will remain valid for a period of 18 months from the date of the survey (i.e. December 2021), after which the validity of this assessment should be reviewed to determine whether further updates are necessary. Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be are any changes to the red line boundary or development proposals which this report was based on.



3.0 Baseline Ecological Conditions

The following section provides a summary of the information derived from previous reports (desk study and initial walkover) to provide an overview of the likely site ecology. This assessment also highlights the potential for ecological constraints to be present on site and the scope for retention and enhancements of features with ecological value.

Note that scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.

3.1 Desk Study: Previous Reports

3.1.1 Designated Sites and Habitats of Principal Importance

All designated sites are defined in local plans under the Town and Country Planning System and the National Planning Policy Framework and are a material consideration when planning applications are being determined. There are no designated Natura 2000 sites within 2 km of the site boundary. The closest European site is the Rochdale Canal Special Area of Conservation (SAC) which lies approximately 4.1 km east of the Area 1.2 site boundary. The site lies within the Impact Risk Zone (IRZ) for the Rochdale Canal SSSI, however this does not present a constraint to development at the site as only planning proposals relating to infrastructure (airports, helipads and other aviation proposals); air pollution; and/or combustion (combustion processes >50MW energy input. Including: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion) are considered likely to impact on the SSSI.

In addition, the following sites are within 20 km of the site:



- Manchester Mere and Mosses SAC is located 15 km south west of the site.
- Peak District Moors (South Pennine Moors Phase 2) Special Protection Area (SPA) is located 16 km east of the site.
- South Pennine Moors SAC is located 16 km east of the site: and
- Rixton Clay Pits SAC is located 20 km south west of the site.

There are two Local Nature Reserves (LNR) within a 2 km radius of the site boundary; Blackley Forest, 0.5 km south, and Alkrington Woods, 1 km east, of the Area 1.2 site boundary.

Blackley Forest LNR comprises semi-natural broadleaved woodland, plantation woodland and grassland. Alkrington Woods LNR comprises woodland, grassland, marsh, standing water and amenity areas.

There are 12 Sites of Biological Interest (SBI) within a 2 km radius of the site boundary. Hazlitt Wood SBI, Heaton Park Reservoir (West) SBI and Heaton Park Reservoir (East) SBI all lie immediately adjacent to the site boundary of Parcel 2. The SBIs and their distance from the site are listed in Table 3.1 below.



Table 3.1: A table to show the 12 SBIs within 2 km of the site. Distanceand direction from the site given.

Site of Biological Importance (SBI)	Approximate Distance and Direction from the site boundary (km)
Hazlitt wood	0.1 south
Heaton Park Reservoir East	0.2 south west
Heaton Park Reservoir West	0.2 west
Streams and Flushes Near Bradley Hall Farm	0.3 east
Boardman Brook	1.1 east
Blackley Forest and Heaton Vale Reservoir	1.1 south
Lakeside Woodland in the Heaton Park	1.3 south
Pilsworth	1.6 north
Alkrington Woods and Rhodes Lodes	1.7 east
Bowker Vale and Reservoir	1.8 south
Philips Park and North Wood	1.8 west
Parr Brook	1.8 north

The desk study identified Habitats of Principal Importance (HPI) within site and within 2 km:



- Deciduous woodland HPI: recorded in a small area on the eastern site boundary of Parcel 1 and as a linear feature along the M60 in the south of the site (Parcel 1).
- Lowland Fen HPI: recorded beyond the southern boundary of Parcel 2.
- Watercourses & ponds are present within Parcel 1; one pond is within Parcel 2.

3.1.2 Previous surveys

Habitats recorded within the red line boundary of the site comprised the following:

- Improved and semi-improved agricultural fields used for grazing.
- Hedgerows and hedge and tree lines.
- Tall ruderal herbs.
- Waterbodies (over 10) and Watercourses.
- Scattered trees.
- Plantation and semi-natural broad-leaved woodland; and
- Buildings and structures.

The site was considered suitable for the following protected/notable species:

- Invertebrates (including white-clawed crayfish).
- Great crested newt (GCN) *Triturus cristatus*.
- Reptiles (slow-worm Anguis fragilis).
- Brown hare *Lepus europaeus*.
- Farmland and wintering birds.
- Bats (both roosting and foraging/commuting suitability).
- Water vole; and



• Hedgehog Erinaceus europaeus.

Invasive plant species Himalayan balsam *Impatiens glandulifera* was identified within the red line boundary, in an area of tall ruderal vegetation in the north of the site.



3.2 Field Observations: Habitats

Habitats recorded within the red line boundary of the site are listed in Table 3.2 with a description. Results are shown on High Level Constraints Map A104444-7-GMA 1.2.

Habitat	Description
Semi-improved grassland	The majority of the grassland on site comprised of semi-improved grassland which varied in species richness with a mix of both species-poor and species-rich. The majority of this grassland type was intensively grazed by horses and sheep, particularly in the south east of the site. Fields left fallow on a rotational basis had developed a relatively diverse sward of grasses including species such as timothy <i>Phleum pratense</i> , meadow foxtail <i>Alopecurus pratensis</i> , Yorkshire fog <i>Holcus lanatus</i> , sweet vernal <i>Anthoxanthum odoratum</i> , <i>Poa</i> species, meadow buttercup <i>Ranunculus acris</i> and rye <i>Lolium perenne</i> . The land associated with Heaton Farm (south east of site) is not cut until 1 st July as part of the Stewardship programme and therefore a taller, more diverse sward is able to develop (provided it is not grazed). Species-rich habitats such as semi-improved grassland, are considered of good ecological value, providing foraging habitat for a wide range of species and the taller swards are suitable for brown hare 'forms' (resting place) particularly along the edge of woodlands.

Table 3.2: A table showing habitats identified on site and descriptions



Habitat	Description
Improved grassland	Improved grassland was recorded throughout the site, which is used to support livestock. It appears the grassland is managed on a rotational basis for grazing and cutting (for fodder). Improved grassland is generally of low ecological value but provides some foraging habitat for small mammals including brown hare and badger, as well as farmland and wintering birds. The improved grassland is generally a monoculture dominated by perennial ryegrass.
Arable	Arable fields were noted in the north east of Parcel 1 adjacent to Simon Lane and north of Bluebell Lane. The arable fields lacked a field margin and are therefore of low ecological value but provide some foraging habitat for small mammals including brown hare and farmland birds.
Semi-natural broadleaved woodland	Broad-leaved semi-natural woodland, containing less than 10% coniferous species, is present within the site and can be split into two broad types: Deciduous Woodland HPI: This habitat type is mapped on MAGIC ⁷ and there are two areas within Parcel 1; associated with the large fishing lake/pond in the south east of Parcel 1, adjacent to Heywood Old Road (A6045); and the strip of

⁷ Natural England's interactive mapping service provides geographic information about the natural environment from across government. A104444-7 www.wyg.com



woodland alongside the eastern boundary of the
M60.
The lange fighting man dia Dansal 4 was not
The large fishing pond in Parcel 1, was not
accessible as it was outside the client's ownership
but was viewed from the roadside and comprised
largely of willow Salix species, with some elder
Sambucus nigra, ash Fraxinus excelsior, sycamore
Acer pseudoplatanus, horse chestnut Aesculus
hippocastanum and hazel Corylus avellana. The
ground flora/understory was dominated by nettle
Urtica dioica, ground elder Aegopodium
podagraria, Umbellifer species and young willow.
The woodland didn't appear mature but as access
was not permitted the woodland may have been
more mature in other areas.
The strip along the M60 was mature with
sycamore, ash, oak Quercus species and a dense
bramble Rubus fruticosus agg. understorey.
The woodland associated with Hazlitt SBI and
Heaton Park beyond the southern boundary of
Parcel 2 is also mapped as HPI.
Semi-natural woodland (not designated as HPI):
There were small areas of woodland along
Heywood Old Road (A6045) in the north of Parcel
1; and in the south west corner of Parcel 2 (just
north west of Hazlitt Wood SBI). The woodland
along Heywood Old Road (Parcel 1) is small patch
of woodland dominated by sycamore, lime <i>Tilia</i>
cordata, with a hawthorn Crataegus monogyna



Habitat	Description
	 hedge along the roadside. The understory was dominated by dense bramble, cleavers <i>Galium aparine</i> and nettle, providing good habitat for various species. The woodland in Parcel 2 was mature in areas with beech <i>Fagus sylvatica</i> and elder, however the understorey was dominated by the <i>invasive species</i> Himalyan balsam with wood avens <i>Geum urbanum,</i> nettle, bramble and willow species.
Plantation broadleaved woodland	There were small areas of plantation woodland along Simon Lane (south of the M62) in Parcel 1 (dominated by sycamore with dense bramble understorey); and along the east side of the M60 (just north of the HPI woodland, dominated by willow, birch <i>Betula</i> species and field maple <i>Acer</i> <i>campestre</i>) which were both likely planted as screening for the motorway. Plantation woodland is assessed as being of lower ecological value than the native, broadleaved stands.
Dense scrub	Dense scrub is found in sparse patches across the site and is mostly associated with the edges of ponds (e.g. large fishing pond) and woodland patches. There is also a larger area in the northwest of Parcel 1. The dominant species were willow and bramble.
Scattered trees	There are occasional mature and semi-mature broadleaved scattered trees throughout the site,



Habitat	Description
	mainly associated with field boundaries, however some solitary trees were within the semi-improved grassland. Species included oak, sycamore and horse chestnut.
Hedgerows	There is a network of intact and defunct hedgerows throughout the site mainly bordering the arable, improved and semi-improved grassland. The majority of the hedgerows were species-poor, dominated by hawthorn, but detailed assessments will be required to inform proposals. Many of the hedges include mature trees. A large proportion of the hedgerows were well established, containing mature trees (some with suitability for roosting bats) and woody species in some sections such as elder and beech. Therefore, some may qualify as Important under the Hedgerow Regulations 1997 . Many of the hedgerows were hedge and tree lines, along the channels of the watercourse and tributaries located in the south of Parcel 1. These linear features likely contribute to the value of the riparian wildlife corridor along the watercourse and may provide ecological value for a number of species.
Marshy grassland	Two areas of marshy grassland were noted in Parcel 1: one in the northwest of the site and another just north of Simister Lane. Both were



Habitat	Description
	surrounded by improved and semi-improved grassland and were dominated by <i>Juncus</i> species.
Amenity grassland	With the exception of residential gardens, there was only one small area of amenity grassland on site, located in Parcel 2 with Parrenthorn High School.
Tall ruderal	There are small areas of tall ruderal herb throughout the site, associated with field margins, hedgerows, watercourses and waterbodies. Species comprise tall perennial and biennial dicotyledons, such as nettle and willowherb <i>Epilobium</i> species. This habitat is considered species-poor but of some ecological value through provision of commuting and foraging opportunities within the site.
Open water	OS mapping indicates there are approximately 11 ponds within the site including two larger waterbodies (one in the east of Parcel 1; and the other in the south of Parcel 2). However, during the survey, the majority of the smaller waterbodies were either dry or very shallow due to the dry weather conditions around the time of the survey. During the survey another three ponds were



Habitat	Description
	identified (see A104444-7-GMA 1.2) two of which were dry but are likely to fill in wetter conditions.
	The two larger waterbodies (one in Parcel 1 and the other in Parcel 2) and the set of three waterbodies near Nutt Lane (Parcel 1) are utilised as fishing ponds and while this negatively affects their potential to support amphibians such as great crested newt, they do provide a foraging and drinking resource for a wide range of species. The rest of the ponds are mainly located within fields or along boundaries and are surrounded by suitable terrestrial habitat for amphibians and
	reptiles. Habitat Suitability Indices ⁸ will be required of waterbodies to assess suitability for great crested newts.
Watercourses	A small watercourse flows within the south of Parcel 1. Two tributaries join, leading into a single watercourse, flowing north to south, before being culverted under Heywood Old Road (with a stone and concrete culvert). This watercourse is also culverted in some sections through the grassland (with brick and concrete culverts) and it appears there may be a culverted tributary flowing from the large fishing pond in the east of the site. Large

⁸ Oldham R.S., Keeble J., Swan M.J.S. and Jeffcote M., (2000), Evaluating the Suitability of Habitat for the Great Crested Newt (*Triturus cristatus*), Herpetological Journal, 10 (4), 143-155.
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Habitat	Description
	sections of the watercourse are tree lined,
	increasing the ecological value of the watercourse.
	The watercourse was relatively shallow during the
	survey, due to dry weather conditions with a stony
	bed & earth banks. The water quality appeared
	good with no turbidity. In some areas, however
	there was no defined bank and the water ran over
	the grassland creating a boggy/swamp area. In
	other areas there was a section with man-made
	stone banks and drains.
	The site boundary, particularly in Parcel 1
	incorporates many building and structures. There
	are many residential properties along Heywood Old
Buildings/Structures	Road and Simister Lane. There are several farms
	within Parcel 1 including Heaton Farm and
	equestrian facilities on Simon Lane, Simister Lane
	and the private road to Heaton Farm. Commercial
	properties include Brookvale Cattery, Same Yet Inn
	and Brookvale Care Home along Simister Lane.
	These structures provide limited to negligible
	ecological value but may have importance for their
	use by bats and breeding birds.

3.3 Field Observations: Protected/Notable Species

3.3.1 Invertebrates

The desk study identified records for cinnabar moth Tyria jacobaeae, a

Section 41 Species of Principal Importance (SPI) within 2 km of the site but A104444-7 www.wyg.com September 2020 creative minds safe hands



beyond the redline boundary of the site. Predominantly heavily grazed or cut agricultural fields which are likely to have pesticides applied to them are generally sub-optimal for invertebrates. The network of hedgerows, watercourses with associated tree lines, vegetation and ponds have potential to support a range of invertebrates. A large number of the fields in Parcel 1 were managed as part of the Countryside Stewardship programme9 during the time of the survey and therefore the use of insecticides may be limited depending on the tier. Other suitable habitat such as tall ruderals, including the cinnabar larval foodplant ragwort *Senecio jacobaea*, were present in the site. The brook (Parcel 1) had some suitability for white-clawed crayfish, however areas with a rocky substrate were very shallow at the time of survey.

3.3.2 Amphibians including Great Crested Newt

The desk study provided one result of confirmed GCN within the red line boundary associated with farmland in the south of Parcel 1, which was confirmed via anecdotal evidence¹⁰ (see High Level Constraints Plan A104444-7-GMA 1.2 for location). The desk study identified the potential presence of great crested newt (GCN) to the north of the site (within area GMA 1.1). There are two EPSLs granted within a 2 km radius of the site boundary for GCN:

- 2015-8369-EPS-MIT in 2015, 0.2 km north of the site, to damage a resting place: and
- 2017-31812-EPS-MIT in 2017, 1. 5km north of the site, to damage a resting place.

There are 54 records of confirmed GCN presence outside the site boundary but within 2 km. The majority of the records were either associated with Pike Fold Golf Club ponds, Whittle Sand Quarry and Broom Hill Farm all of which

⁹ Conversation with farmer of Heaton Farm on Tuesday 9th June 2020

¹⁰ Conversation with farmer of Heaton Farm on Tuesday 9th June 2020 A104444-7 www.wyg.com



are north of the site beyond the M62. The two larger ponds within the site (southwest of Parcel 2 and southeast of Parcel 1) are utilised as fishing ponds and therefore are likely to be unsuitable as breeding sites for great crested newt.

There was one record of common toad *Bufo bufo*, a SPI, within the red line boundary and an additional 28 records outside the boundary within 2 km of the site.

The network of hedgerows, associated ground flora, woodland pockets, areas of tall ruderals and areas of semi-improved grassland provide optimal terrestrial habitat for GCN and other amphibians. Most of the ponds were dry during the survey due to dry weather but are likely to be suitable during wetter conditions.

3.3.3 Reptiles

The data search returned one record of slow worm outside the red line boundary of the site boundary, approximately 1.1 km south of the site boundary.

The network of hedgerows, pond margins, associated ground flora, areas of tall ruderals, dense scrub and the more diverse areas of semi-improved grassland provide suitable habitat for reptiles.

3.3.4 Bats

The desk study returned one record of a pipistrelle species within the red line boundary, associated with agricultural fields in the north east of Parcel 1. There are two EPSLs granted within a 2 km radius of the red line boundary for bat species:

• 2014-1364-EPS-BDX in 2014, 1.4 km south of the site, for unknown disturbance to a common pipistrelle *Pipistrellus pipistrellus*.



• 2014-1562-EPS-BDX in 2014, 1.5 km south of the site, destruction of a breeding and resting site for common pipistrelle.

A total of 330 records were returned for bats outside the site boundary, with 45 records denoting roosts for common pipistrelle, soprano pipistrelle *Pipistrellus pygmaeus* and an unidentified species. Records were concentrated around Middleton, to the east of the site and Rhodes, to the south of the site boundary.

The site has moderate habitat quality for foraging and commuting bats due to the range of habitats available including [albeit mainly defunct] hedgerow network, sections of hedge and tree lines, small woodland parcels, two large open waterbodies, small brooks and grassland across the site. There is good connectivity to the wider landscape, however it is not considered high value habitat as the watercourse within site is very small (e.g. rather than a river with associated valley) and the majority of the grasslands are either arable, improved or intensively grazed semi-improved grassland which is less valuable to bats than diverse, managed grasslands.

There are various potential roosting opportunities within both Parcel 1 and 2, including many buildings and structures associated with residential properties, farms and equestrian facilities. There is anecdotal evidence¹¹ of a bat roost at Heaton Farm (see A104444-7-GMA 1.2 for location in Parcel 1). A number of trees within the site (particularly Parcel 1) may provide roosting suitability and one of the dilapidated brick culverts associated with the watercourse in Parcel 1 also provided suitability for roosting bats.

3.3.5 Badger

The desk study returned 17 records of badger, all outside the red line boundary of the site, but within 2 km of the site. These confidential records included sett locations and field signs. Snuffle holes and well-marked

¹¹ Conversation with farmer of Heaton Farm on Tuesday 9th June 2020 A104444-7 www.wyg.com



mammal paths were noted during the walkover in 2019 crossing field boundaries within the red line boundary, in the north of the site.

Badger setts were identified on the site in 2020, these are likely to be used as outlier or subsidiary setts. The areas of woodland, hedgerows and hedge and tree lines provide suitable areas for badgers to create their setts, but no detailed badger survey has been carried out. The surrounding fields provide foraging opportunities.

3.3.6 Otter

The desk study found one record of otter *Lutra lutra*, 1.9 km south of the red line boundary of the site and associated with the River Irk.

Although the watercourse running through the south of Parcel 1 is very shallow it does connect to suitable foraging habitat: large fishing pond in the east of the site (connect by sluice and overflow) and a series of three fishing ponds to the west. It is possible that this watercourse connects to the River Irk via the culvert (450m south of the site), which otters could easily commute through. Therefore, it is possible that the watercourse is used as a corridor and/or commuting route to the fishponds.

3.3.7 Water vole

The desk study returned two records of water vole, outside the red line boundary of the site. The first is 1.1 km south west in Heaton Park and the second is 1.8 km south of the site boundary associated with the River Irk.

Sections of the watercourse within the south of Parcel 1 were considered to provide suitable habitat to support water vole, particular in the deeper sections with vegetated earth banks.

3.3.8 Birds

The desk study MAGIC search identified the site as supporting *Arable Farmland and Grassland Bird Assemblages* - species listed are grey



partridge *Perdix perdix*, lapwing *Vanellus vanellus*, snipe *Gallinago gallinago*, yellow wagtail *Motacilla flava* and tree sparrow *Passer montanus*. The desk study records returned included Species of Principal Importance (SPI) within the red line boundary of the site including peregrine falcon *Falco peregrinus*, bullfinch *Pyrrhula pyrrhula*, house sparrow *Passer domesticus*, lapwing, lesser redpoll *Acanthis cabaret*, linnet *Linaria cannabina*, reed bunting *Emberiza schoeniclus*, skylark *Alauda arvensis*, song thrush *Turdus philomelos*, spotted flycatcher *Muscicapa striata* and tree sparrow. The majority of the records are associated with the site boundary to the west of the M60 adjacent to Simister Lane.

There are 65 records of barn owl *Tyto alba* outside the site boundary, with the majority associated with farmland north of the site, beyond the M62.

The remaining records totalling 32 species, of which 23 species are SPI, are outside the red line boundary. The majority are associated with either Heaton Park reservoir immediately adjacent to Parcel 2 or Whitefield located north west of the site boundary, beyond the M60/M62.

Habitats within the red line boundary of the site were largely agricultural fields and hedgerows, which may support both breeding and wintering farmland birds. Heaton Park, including Heaton Park Reservoir East SBI, Heaton Park Reservoir West SBI and Hazlitt Woods SBI lies immediately to the south of Parcel 2 and contain a reservoir and a number of waterbodies known to support water birds throughout both summer and winter. Due to the close proximity of this SBI, it is considered likely that birds from the park and reservoir may also utilise land within the site.

During the 2019 walkover a large flock of wintering starling *Sturnus vulgaris* (S41 species) was seen moving between fields within the site boundary to forage, approximately 30 birds were present. Additional opportunities for ground nesting species may exist within the less intensively managed field/areas within fields, the tall ruderal habitats and scrub habitats on site.

The woodland areas and tree lines are likely to support a range of breeding

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bird species. There are also many farmhouses and barns which provide scope for nesting birds under eaves and in roof spaces or derelict structures. There is potential for barn owl to make use of farm buildings and mature trees and in 2020 there was anecdotal evidence¹² of barn owl breeding in a field shelter/barn located off the private road to Heaton Farm in Parcel 1 (however this was not accessible). Incidental birds recorded during the survey were jay *Cyanocitta cristata*, oystercatcher *Haematopus ostralegus*, chaffinch *Fringilla coelebs*, mistle thrush, *Turdus viscivorus*, approximately 12 nests of sand martin *Riparia riparia* with at least one active nest (Parcel 1), robin *Erithacus rubecula*, goldfinch *Carduelis carduelis*, mallard *Anas platyrhynchos*, long-tailed tit *Aegithalos caudatus*, pair of buzzards *Buteo buteo* in the north of site, pigeons *Columba livia domestica*, swallow *Hirundo rustica* (nesting in properties along Simister Lane, Parcel 1) and dunnock.

3.3.9 Brown Hare

The desk study identified one record of hare within the red line boundary of site, associated with an agricultural field in the north of Parcel 1. There were an additional three records associated with farms north of the site, beyond the M62.

There is suitable habitat for brown hare in the large open agricultural fields including those under cereal crops which provide good foraging opportunities. A brown hare was recorded within the red line boundary in a poor semiimproved field in the north of Parcel 1 during the 2019 walkover survey and there was anecdotal evidence¹³ of brown hare in the south of Parcel 1 associated with Heaton Farm in 2020.

3.3.10 European Hedgehog

The desk study provided no records of hedgehog within the redline boundary of the site. There are however eight records outside the site boundary

¹² Conversation with farmer of Heaton Farm on Tuesday 9th June 2020

¹³ Conversation with farmer of Heaton Farm on Tuesday 9th June 2020 A104444-7 www.wyg.com



associated with Middleton to the east of the site and other towns in the surrounding area.

There is suitable habitat for hedgehog in the form of hedgerows, tall ruderal vegetation, woodland, scattered trees and gardens.

3.3.11 Invasive Non-Native plant species

The desk study did not return any records for invasive non-native plants.

Himalayan balsam was identified within the red line boundary, in an area of tall ruderal vegetation in the north of Parcel 1 on the site boundary in 2019. During the 2020 survey, Himalayan balsam was noted along the brook (Parcel 1) and in the understorey of woodlands (Parcel 2). Japanese knotweed *Reynoutria japonica* was also identified on site in the north west of Parcel 1 and around the brook. *Rhododendron ponticum* was identified in the west of Parcel 1 bordering marshy grassland. There is potential for these and other invasive non-native plant species to occur more extensively throughout the site.



4.0 Constraints and Opportunities

The following constraints and opportunities are based on relevant planning policy and legislation including the National Planning Policy Framework, Greater Manchester Local Biodiversity Action Plan, the relevant documents for Bury's Local Plan and wildlife legislation. The Unitary Development Plan 1997 will be replaced by Bury Local Plan; however, the Local Plan has not yet been adopted, hence previously adopted policies have been used in this report, with reference also made to the Bury Local Plan Policy Directions 2018 document. Refer to Appendix B and C for relevant extracts from these documents.

The Greater Manchester Spatial Framework (GMSF), although not yet adopted, sets out the plan for development within the Greater Manchester Area over the next two decades, and relevant sections of the Draft published in January 2019 will be referenced.

4.1 Constraints

4.1.1 Biodiversity Net Gain

Although not mandatory at present, the government are likely to use the forthcoming Environment Bill to mandate Biodiversity Net Gain in England. When in force it is likely that at least a 10% net gain will be required from developments.

A revised NPPF was issued on 19th February 2019 (Ministry of Housing Communities and Local Government, 2019¹⁴) and currently supplements government Circular 06/2005, Biodiversity and Geological Conservation:

¹⁴ Ministry of Housing Communities and Local Government, (2019), National Planning Policy Framework, [online] Available at <u>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf</u>



Statutory Obligations and their Impact within the Planning System (Office of the Deputy Prime Minister, 2005¹⁵).

Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. Paragraph 170 of the NPPF also states that:

'Planning policies and decisions should contribute to and enhance the natural environment by:

d) minimising impacts on and providing **net gains for biodiversity**, including by establishing coherent ecological networks that are more resilient to current and future pressures

Paragraph 174 then goes on to confirm that:

When determining planning applications, local planning authorities should apply the following principles:

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable **net gains for biodiversity.**

The GMSF states:

"Development at this site will be required to *minimise impacts on and provide net gains for biodiversity within the site.*"

Due to the location of the site within an area of green space, development of the area will likely result in a net loss of biodiversity, this will require addressing through detailed mitigation and enhancements and/or commuted

¹⁵ ODPM, (2005), Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System, [online] Available at https://accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.com/ice.accets.publiching.co

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sums which could be used to provide biodiversity gains in local nature conservation sites.

A Biodiversity Net Gain (BNG) assessment /Biodiversity Offsetting calculation will likely be required for the site at planning stage as it is considered that an application for development will be submitted at a time when biodiversity net gain will be required.

It is considered likely that a site wide Biodiversity Mitigation and Enhancement plan will be required to promote and manage Biodiversity Net Gain at the detailed design stage (Policy GM Allocation 1.2: 12). Section 8.51 of the GMSF (revised 2019) refers to Biodiversity Net Gain using the existing DEFRA metric¹⁶ supported by best practice guidance ¹⁷, however these will be superseded by a more locally specific Greater Manchester biodiversity metric which will be adopted as supplementary guidance to the GMSF.

4.1.2 Designated Sites

The European designated sites within 20 km of the site are the Rochdale Canal SAC approximately 4.1 km east, Manchester Mosses SAC approximately 15 km south west, the South Pennine Moors SAC approximately 16 km east, Peak District Moors (South Pennine Moors Phase 2) SPA approximately 16km east and the Rixton Clay Pits SAC approximately 20km south west. It is anticipated that development of the site will not result in the direct loss or degradation of the qualifying features of these designated sites. Potential indirect effects of the development, primarily changes in hydrology or water quality and increased public pressure (as publicly accessible), will need to be considered further. It is recommended that a Stage 1 HRA (Assessment of Likely Significant Effects) is undertaken to

¹⁶ Defra and Natural England (March 2012) Biodiversity Offsetting Pilots – Technical Paper: the metric for the biodiversity offsetting pilot in England

¹⁷ Chartered Institute of Ecology and Environmental Management et al (2016) Biodiversity Net Gain: Good practice principles for development A104444-7
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inform a detailed planning application and assess whether there will be any likely significant impacts on the qualifying features of the designations.

There were no nationally designated sites within the 2 km search area. The closest is the Rochdale Canal SSSI 4.1 km east of the site. The site lies in the Impact Risk Zone of the Rochdale Canal SSSI, however only planning proposals relating to infrastructure (airports, helipads and other aviation proposals); air pollution; and/or combustion (combustion processes >50MW energy input. Including: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion) are considered likely to impact on the SSSI. Therefore, discussion with the LPA is not required for the proposed development as it falls outside the scope for likely impact.

There are two LNRs and 12 SBIs within 2km of the site; three of these SBI's are located adjacent to the site boundary. Although there will be no direct loss of habitat at these sites, there is the potential for indirect impacts due to air pollution, water pollution and increased visitor pressure. This will need to be further investigated and it is recommended that consultation with the LPA is undertaken.

4.1.3 Habitats

In line with:

- The Unitary Development Plan policy *EN6/4 Wildlife Links and corridors*.
- "The Council will seek to consolidate and, where appropriate, strengthen wildlife links and corridors, and will not permit development which would adversely affect identified areas."
- The Unitary Development Plan policy *EN8 Woodland and trees*; and



- "The Council will support the retention of trees, woods, copses and hedgerows and encourage natural regeneration and new and replacement tree planting throughout the Borough."
- The Bury Local Plan Policy Directions *policy NE1 Green Infrastructure* which state:
- "It is proposed that the Local Plan should include a policy that seeks to protect and enhance multi-functional green infrastructure and support proposals to improve the connectivity and quality of the network where these accord with other Local Plan policies and proposals."

Indicative locations of key habitat constraints can be seen on the updated GMA 1.2 High Level Constraints Plan (A104444-7-GMA 1.2). Habitat constraints which may require further surveys have been identified, which include:

- Hedgerow Assessments under the Hedgerow Regulations 1997 to identify Important Hedgerows; and
- Habitat Suitability Indices of waterbodies to assess suitability for great crested newts.

Please note a detailed extended Phase 1 habitat survey will be required to accurately identify and value the habitats on site.

4.1.4 Protected and Notable Species

A number of potential further species surveys have been identified, highlighted on the GMA 1.1 Future Ecology Survey Plan (Figure A104444-5-MAN-N-303) and listed below:

- Great crested newt eDNA surveys.
- Great crested newt presence/absence surveys.
- Great crested newt population estimates.
- Reptiles.

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- Bat roost surveys of trees and buildings/structures.
- Bat activity surveys.
- Badger survey.
- Breeding bird surveys.
- Wintering bird surveys.
- Barn owl survey.
- Water vole and otter survey.
- Invasive species survey.
- Invertebrate survey (including white-clawed crayfish); and
- Surveys for SPI species (brown hare, common toad, hedgehog).

4.2 **Opportunities**

Based upon the results of the desk-based study and the high-level walkover the following opportunities have been identified.

4.2.1 Biodiversity Net Gain

Policy GM Allocation 1.2: 12 states that development at this site will be required to: "*Minimise impacts on and provide net gains for biodiversity* assets within the site." Opportunities for **Biodiversity Net Gain** comprise using the lowest ecological /poorest quality land for the development and avoiding/retaining the habitat of relatively higher ecological value where possible.

The relatively good quality habitat within the site comprises the watercourse corridors, broadleaved woodland, hedgerows, and species-rich grassland. These habitats can be retained and enhanced. Areas of relatively low ecological value which are not developed can also be enhanced to improve value.



It is anticipated that it will be possible to achieve a Biodiversity Net Gain across the site through retention of high value habitat and developing a network of connected green corridors and ponds throughout the site. This would also improve connectivity with the wider area, as well as *"Make provision for new, upgraded and publicly accessible green infrastructure throughout the site*" in line with *Policy GM Allocation 1.2: 8*.

4.2.2 Habitats / Protected and Notable Species

The following opportunities regarding habitat have been identified (which will also feed into biodiversity net gain, above):

- Enhance areas of grassland to create native wildflower meadows.
- Linear parcels of rough grassland (particularly in Parcel 1) with appropriate management incorporated to provide hunting habitat for bird species such as barn owl.
- Hedgerows to be enhanced by gap filling gappy hedges, increasing the number of woody species present and leaving 5m buffer strips and sowing with native seed producing plants, creating wildlife corridors across the site.
- Tree lines along watercourse in the south of Parcel 1 and broadleaved woodland around pond in the east of the site to be enhanced by planting suitable native shrub and tree species to create a riparian woodland corridor across the site, in line with Unitary Development Plan *Policy EN8/2 Woodland and Tree Planting* and *Policy GM Allocation 1.2: 8.*
- Woodland planting and enhancement along the motorway edges to create greater screening and promote wildlife corridors, as referenced in the Unitary Development Plan *Policy EN6/4 Wildlife Links and Corridors* and *Policy GM Allocation 1.2: 11.39*.
- Ponds on site to be enhanced and new ponds created.



- Green corridors created to link ponds, creating a network of habitats across the site in line with *Policy GM Allocation 1.2: 8* and *11.37*.
- Bird boxes of varying specification for different species to be incorporated into buildings and landscaping.
- Bat boxes of varying specification for different species to be incorporated into buildings and landscaping.
- Adding hibernacula within terrestrial habitat for GCN and reptiles.

Three key site-specific opportunities have been identified which could promote and enhance biodiversity, maintain wildlife corridors within the site and ensure connectivity with the wider landscape in line with *Policy GM Allocation 1.2: 8* and *11.37*. They involve:

- Enhancing the woodland edge of Heaton Park (southern boundary of Parcel 2) and extending the habitat into the site to create connectivity with the pond located in the south of Parcel 2. The pond would be enhanced, and a rough grassland margin created around it. The hedgerow within that area would also be enhanced (as described above) to create better connectivity across the site.
- A wetland habitat to be created in either the northwest corner or west of Parcel 1 to include areas or marshy grassland and additional waterbodies.
- Enhancing the existing watercourse and riparian habitat within Parcel 1. Linear area of rough grassland to be created along both sides of riparian corridor. The woodland area on the eastern border of Parcel 1 to be enhanced to create connectivity to the riparian corridor.

4.3 Next Steps to Assess Constraints and Opportunities

4.3.1 Requirements for Future Planning Application

Requirements for the future planning application will involve:



- Undertaking an extended Phase 1 Habitat survey to determine which other further surveys are necessary, as listed below.
- A biodiversity net gain calculation, informed by agreement with LPA, of biodiversity metric to use at an early stage to allow initial cost analysis.
- A Stage 1 HRA (Assessment of Likely Significant Effects) to screen significant impacts on the qualifying features of the designated site.
- Consultation with the LPA regarding potential indirect impacts on LNRs and SBIs.

It is considered likely that the following further surveys may be required:

- Hedgerow survey.
- Habitat Suitability Indices of ponds for great crested newts.
- Great crested newt eDNA surveys.
- Great crested newt presence/absence surveys.
- Great crested newt populations estimate.
- Reptiles.
- Bat roost surveys of trees and buildings/structures.
- Bat activity surveys.
- Badger survey.
- Breeding bird surveys.
- Wintering bird surveys.
- Barn owl survey.
- Water vole and otter survey.
- Invasive species survey.
- Invertebrate survey (including white-clawed crayfish); and
- Surveys for SPI species (brown hare, common toad, hedgehog).



The above surveys should be undertaken at the times shown in the Survey Calendar in Appendix D.

4.3.2 Next Steps - Opportunities

The results of the further surveys will be used to identify and develop opportunities within the site, which can be used to inform the masterplan design.

4.4 Conclusions

Based upon the assessment work to date there are no major ecological constraints which preclude the proposed development. This report identifies high-level constraints and appropriate measures required in order to avoid or mitigate for such constraints. Such measures along with recommendations for appropriate enhancements would be incorporated into the design of the scheme at the detailed planning stage.

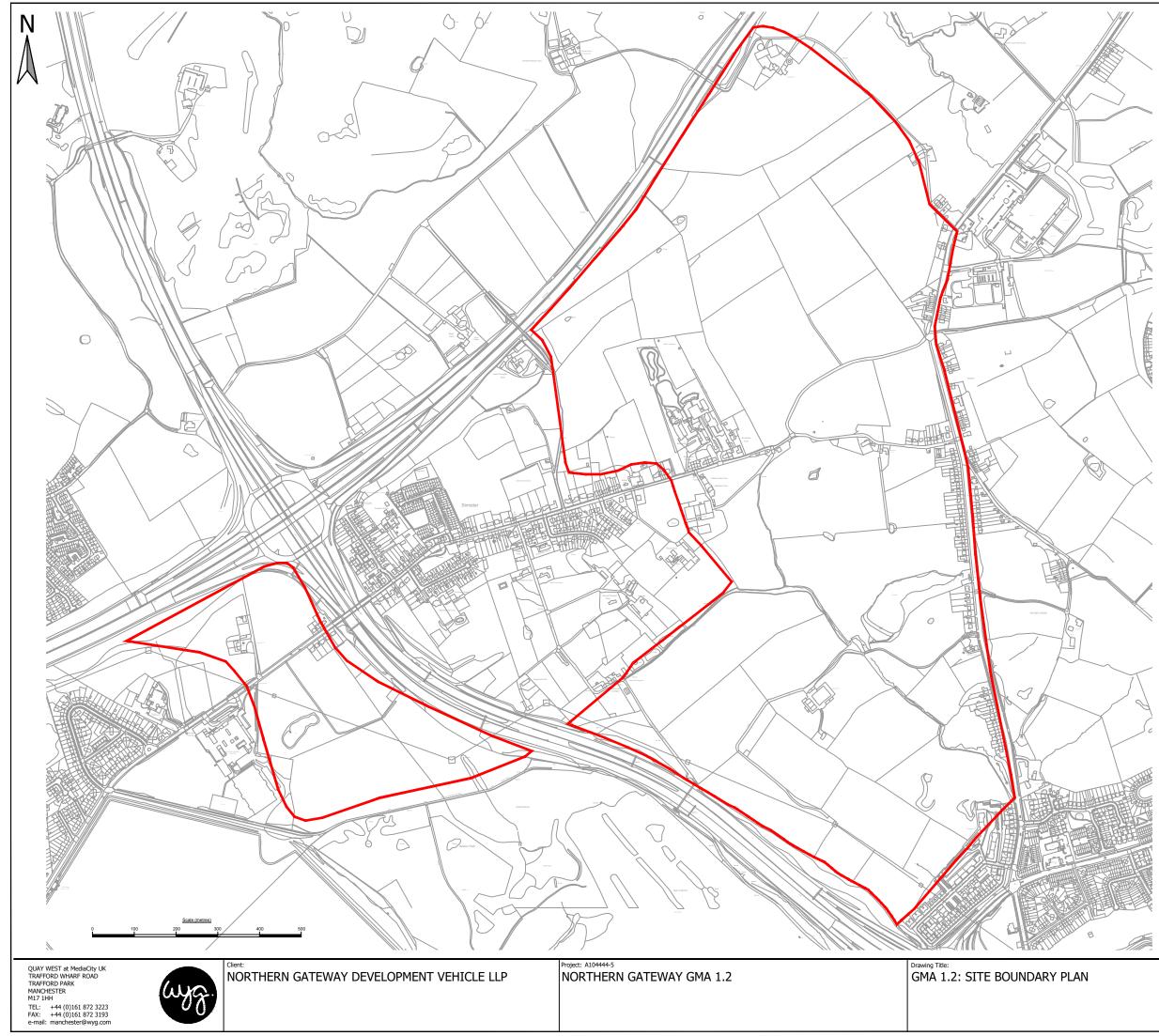


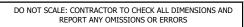
Drawings

A104444-5-MAN-N-02-REV-B GMA 1.2 Site Location Plan

A104444-7-GMA 1.2 High-Level Constraints Plan

A104444-5-MAN-N-304 GMA 1.2 Future Ecology Survey Plan







GMA 1.2 - SITE BOUNDARY

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Rev A

Notes Initial map production

Legend	
	Site boundary
	HPI - Deciduous woodland
	HPI - Lowland fens
	HPI - Wood Pasture and Parkland
	Broadleaved woodland
	Houses/buildings - some with bat roost suitability
	Waterbody
	Waterbody - dry
	Waterbody - mainly dry
	No access
	Hedgerow/hedgerow with trees
	Watercourse
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High Level Constraints Plan

Northern Gateway, Site GM1.2 Northern Gateway Development Vehicle LLP					
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Potential constraints, and possible features and habitats for future survey, have been identified through a combination of a high-level walkover using public rights of way and a desk based study including a review of aerial mapping. Restricted public access has meant that aerial mapping has been relied on proportionately more at this stage. Detailed extended Phase 1 Habitat survey of full site required to confirm future surveys.

HEATON PARK



Notes Initial map production Otter survey added

Legend

Legen	iu ii			
	Site boundary	/		
	Site of Biolog	ical Importan	ce (SBI)	
////	HPI wood pas site	sture + parkla	and borderin	g
	HPI broadlead bordering site	ved woodland e	on site/	
////	HPI lowland f	en		
	Waterbody/po survey for Gro			١
	Tree lined rip surveys for ba			le
	Woodland - 1 badgers	further survey	for bats and	d
	Farm house/f roost potentia	arm buildings al + barn owl		
	Houses – furt	her surveys f	or bats	
—	Hedgerows/tr for Important	ree lines — fur : Hedgerow St		
—	Watercourse water vole an white-clawed	d invertebrate		
	Possible mature for bats and l	ıre trees – fur oarn owl	ther surveys	5
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			0	wg.
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Contains Ordnance S Open Government E Other Credits: World	Survey Data © Crown copyright and datab lata reproduced contains public sector info Imagery (Clarity): Source: Esri, DigitalGl	ase right 2019 © Natural England © I	Vorthern Ireland Environment Ageno nment Licence v3.0 IES/Airbus DS, USDA, USGS, AeroGR	y. ID, IGN, and the GIS User



Appendices



Appendix A. Report Conditions

This Report has been prepared using reasonable skill and care for the sole benefit of [Northern Gateway Development Vehicle LLP] ("the Client") for the proposed uses stated in the report by WYG Environment Planning Transport Limited] ("WYG"). WYG exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder's permission.

No liability is accepted, or warranty given for; unconfirmed data, third party documents and information supplied to WYG or for the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report. WYG does not purport to provide specialist legal, tax or accounting advice.

The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary, and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The "shelf life" of the Report will be determined by a number of factors including its original purpose, the Client's instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.



The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYG accept no liability for issues with performance arising from such factors.



Appendix B. Wildlife Legislation

Bern Convention

The Convention on the Conservation of European Wildlife and Natural Habitats (the *Bern Convention*) was adopted in Bern, Switzerland in 1979, and was ratified in 1982. Its aims are to protect wild plants and animals and their habitats listed in Appendices 1 and 2 of the Convention and regulate the exploitation of species listed in Appendix 3. The regulation imposes legal obligations on participating countries to protect over 500 plant species and more than 1000 animals.

To meet its obligations imposed by the Convention, the European Community adopted the *EC Birds Directive* (1979) and the *EC Habitats Directive* (1992 – see below). Since the Lisbon Treaty, in force since 1st December 2009, European legislation has been adopted by the European Union.

Bonn Convention

The Convention on the Conservation of Migratory Species of Wild Animals or 'Bonn Convention' was adopted in Bonn, Germany in 1979 and came into force in 1985. Participating states agree to work together to preserve migratory species and their habitats by providing strict protection to species listed in Appendix I of the Convention. It also establishes agreements for the conservation and management of migratory species listed in Appendix II.

In the UK, the requirements of the convention are implemented via the Wildlife & Countryside Act 1981 (as amended), Wildlife (Northern Ireland) Order 1985 (as amended), Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 and the Countryside and Rights of Way Act 2000 (CRoW).

Habitats Directive



The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Fora, or the 'Habitats Directive', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes. In the UK, the Habitats Directive is transposed into national law via the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales, and via the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland.

Birds Directive

The EC Directive on the Conservation of Wild Birds (791409/EEC) or 'Birds Directive' was introduced to achieve favourable conservation status of all wild bird species across their distribution range. In this context, the most important provision is the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex 1 of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance.

Conservation of Habitats and Species Regulations 2017 (as amended)

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by the European Commission, are then designated as Special Protection Areas (SPAs) within six years. Public bodies must also help preserve, maintain and re-establish habitats for wild birds.

The 2018 amendments mainly related to the impact of the *People Over Wind* decision and some implications arising for neighbourhood plan development and a range of other planning tools including Local Development Orders and Permission in Principle – see here for full details:

https://www.legislation.gov.uk/uksi/2018/1307/note/made

The Regulations make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5 - see below:



Schedule 2 – European Protected	Schedule 5 – European Protected		
Species of Animals	Species of Plants		
Horseshoe bats Rhinolophidae - all	Shore dock Rumex rupestris		
species			
Common bats Vespertilionidae - all	Killarney fern Trichomanes speciosum		
species			
Large Blue Butterfly Maculinea arion	Early gentian Gentianella anglica		
Wild cat Felis sylvestris	Lady's-slipper Cypripedium calceolus		
Dolphins, porpoises and whales Cetacea	Creeping marsh-wort Apium repens		
– all sp.	Creeping maisir-wort Aplain repens		
Dormouse Muscardinus avellanarius	Slender naiad Najas flexilis		
Pool frog Rana lessonae	Fen orchid Liparis loeselii		
Sand lizard Lacorta agilia	Floating-leaved water plantain Luronium		
Sand lizard Lacerta agilis	natans		
Fisher's estuarine moth Gortyna borelii	Yellow marsh saxifrage Saxifraga		
lunata	hirculus		
Great crested newt Triturus cristatus			
Otter Lutra lutra			
Lesser whirlpool ram's-horn snail Anisus			
vorticulus			
Smooth snake Coronella austriaca			
Sturgeon Acipenser sturio			
Natterjack toad Epidalea calamita			
Marine turtles Caretta caretta, Chelonia			
mydas, Lepidochelys kempii,			
Eretmochelys imbricata, Dermochelys			
coriacea			

Wildlife & Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK.

This legislation is the chief means by which the 'Bern Convention' and the Birds



Directive are implemented in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:

kill, injure, or take any wild bird.

take, damage or destroy the nest of any wild bird while that nest is in use; or take or destroy an egg of any wild bird.

Or to intentionally do the following to a wild bird listed in Schedule 1:

disturbs any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or

disturbs dependent young of such a bird.

In addition, the Act makes it an offence (subject to exceptions) to:

intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5. interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places; and

The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Finally, the Act also makes it an offence (subject to exceptions) to:

intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or any seed or spore attached to any such wild plant.

unless an authorised person, intentionally uproot any wild plant not included in Schedule 8; or

sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, Schedule 5 'Animals which are Protected' contains a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates. Schedule 8 'Plants which are Protected' of the Act, contains 185 species, including higher plants, bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.



Part 14 of the Act makes unlawful to plant or otherwise cause to grow in the wild any plant which is listed in Part II of Schedule 9.

It is recommended that plant material of these species is disposed of as bio-

hazardous waste, and these plants should not be used in planting schemes.

Avocet	Recurvirostra avosetta	Osprey	Pandion haliaetus
Bee-eater	Merops apiaster	Owl, Barn	Tyto alba
Bittern	Botaurus stellaris	Owl, Snowy	Nyctea scandiaca
Bittern, Little	Ixobrychus minutus	Peregrine	Falco peregrinus
Bluethroat	Luscinia svecica	Petrel, Leach's	Oceanodroma
			leucorhoa
Brambling	Fringilla montifringilla	Phalarope, Red-	Phalaropus lobatus
		necked	
Bunting, Cirl	Emberiza cirlus	Plover, Kentish	Charadrius
			alexandrinus
Bunting, Lapland	Calcarius lapponicus	Plover, Little	Charadrius dubius
		Ringed	
Bunting, Snow	Plectrophenax nivalis	Quail, Common	Coturnix coturnix
Buzzard, Honey	Pernis apivorus	Redstart, Black	Phoenicurus ochruros
<u>Capercaillie</u>	Tetrao urogallus	Redwing	Turdus iliacus
Chough	Pyrrhocorax pyrrhocorax	Rosefinch, Scarlet	Carpodacus erythrinus
Corncrake	Crex crex	Ruff	Philomachus pugnax
Crake, Spotted	Porzana porzana	Sandpiper, Green	Tringa ochropus
Crossbills (all	Loxia	Sandpiper, Purple	Calidris maritima
species)			
Curlew, Stone	Burhinus oedicnemus	Sandpiper, Wood	Tringa glareola
Divers (all	Gavia	Scaup	Aythya marila
species)			
Dotterel	Charadrius morinellus	Scoter, Common	Melanitta nigra
Duck, Long tailed	Clangula hyemalis	Scoter, Velvet	Melanitta fusca

Schedule 1 - Birds which are protected by special penalties



Eagle, Golden	Aquila chrysaetos	Serin	Serinus serinus
Eagle, White-	Haliaetus albicilla	Shorelark	Eremophila alpestris
tailed			
Falcon, Gyr	Falco rusticolus	Shrike, Red-	Lanius collurio
		backed	
Fieldfare	Turdus pilaris	Spoonbill	Platalea leucorodia
Firecrest	Regulus ignicapillus	Stilt, Black-winged	Himantopus
			himantopus
Garganey	Anas querquedula	Stint, Temminck's	Calidris temminckii
Godwit, Black-	Limosa limosa	Swan, Bewick's	Cygnus bewickii
tailed			
Goshawk	Accipiter gentilis	Swan, Whooper	Cygnus cygnus
Grebe, Black-	Podiceps nigricollis	Tern, Black	Chlidonias niger
necked			
Grebe, Slavonian	Podiceps auritus	Tern, Little	Sterna albifrons
Greenshank	Tringa nebularia	Tern, Roseate	Sterna dougallii
Gull, Little	Larus minutus	Tit, Bearded	Panurus biarmicus
Gull,	Larus melanocephalus	Tit, Crested	Parus cristatus
Mediterranean			
Harriers (all	Circus	Tree-creeper,	Certhia brachydactyla
species)		Short-toed	
Heron, Purple	Ardea purpurea	Warbler, Cetti's	Cettia cetti
Hobby	Falco subbuteo	Warbler, Dartford	Sylvia undata
Ноорое	Upupa epops	Warbler, Marsh	Acrocephalus palustris
Kingfisher	Alcedo atthis	Warbler, Savi's	Locustella luscinioides
Kite, Red	Milvus milvus	Whimbrel	Numenius phaeopus
Merlin	Falco columbarius	Woodlark	Lullula arborea
Oriole, Golden	Oriolus oriolus	Wryneck	Jynx torquilla

Animal (Vertebrate) Species Listed in Schedule 5 (full legal protection at all times)



Horseshoe Bats	Rhinolophidae	Newt – Great	Triturus cristatus
(all species)		Crested	
Typical Bats (all	Vespertilionidae	Snake – Smooth	Coronella austriaca
species)			
Dolphin – Bottle-	Tursiops truncatus	Toad, Natterjack	Epidalea calamita
nosed	(tursio)		
Dolphin –	Delphinus delphis	Turtles – All	Cheloniidae &
Common		Species	Dermochelyidae
Dormouse –	Muscardinus avellanarius	Basking Shark	Cetorhinus maximus
Hazel			
Pine Marten	Martes martes	Burbot	Lota lota
Porpoise –	Phocaena phocaena	Goby – Giant	Gobius cobitis
Harbour			
Otter – Eurasian	Lutra lutra	Goby – Couch's	Gobius couchii
Squirrel – Red	Sciurus vulgaris	Seahorse – Short-	Hippocampus
		snouted ¹⁸	hippocampus
Walrus	Odobenus rosmarus	Seahorse – Spiny	Hippocampus
			guttulatus
Water Vole	Arvicola amphibia	Sturgeon	Acipenser sturio
Whales – All	Cetacea	Vendace	Coregonus albula
Species			
Wildcat	Felis sylvestris	Whitefish	Coregonus lavaretus
Lizard – Sand	Lacerta agilis		

Animal (Vertebrate) Species Protected under Section 9 (1) part: Killing and Injuring & Section 9 (5) Sale

Adder	Vipera berus	Slow worm	Anguis fragilis
Lizard –	Zootoca vivipara	Snake – Grass	Natrix helvetica (natrix)
Viviparous			

 $^{^{18}}$ Both sea horse species are protected in England only. $\ensuremath{\texttt{A104444-7}}$



Animals (Vertebrate) Species Protected under Section 9 (5) Sale only

Frog – common	Rana temporaria	Newt – Smooth	Lissotriton vulgaris
Newt – Palmate	Lissotriton helvetica	Toad – Common	Bufo bufo

Animals (Vertebrate) Species Protected under Section 9 (1) (4)(a): Killing,

Injuring & Taking and Damage / Destruction of place of shelter / protection only

Allis Shad	Alosa alosa	Shark – Angel	Squatina squatina
Twaite Shad	Alosa fallax		

Butterflies & Moths – Full Protection under Schedule 5¹⁹ at all times

High brown	Argynnis adippe	Fisher's Estuarine	Gortyna borelii
fritillary		Moth	
Large Blue	Maculinea arion	Barberry Carpet	Pareulype berberata
Heath Fritillary	Mellicta athalea	Black-veined Moth	Siona lineata
Marsh Fritillary	Eurodryas aurinia	Sussex Emerald	Thalera fimbrialis
Swallowtail	Papilio machaon britannicus	Essex Emerald	Thetidia smaragdaris
Large Copper	Lycaena dispar	Fiery Clearwing	Bembecia chrysidiformis
Reddish-buff Moth	Acosmetia caliginosa	New-Forest Burnet	Zygaena viciae

Butterflies - Protected under Section 9 (5) Sale Only

Purple Emperor	Apatura iris	Adonis Blue	Lysandra bellargus
Northern Brown	Aricia artaxerxes	Chalkhill Blue	Lysandra coridon
Argus			
Pearl-bordered	Boloria euphrosyne	Glanville Fritillary	Melitaea cinxia
Fritillary			
Chequered	Carterocephalus	Large Tortoiseshell	Nymphalis polychloros
Skipper	palaemon		

 ¹⁹ Viper's Bugloss Moth *Hadena irregularis* was removed from Schedule 5 in 1996 as it is believed to be extinct.
 A104444-7
 www.wyg.com
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Large Heath	Coenonympha tullia	Silver-studded Blue	Plebejus argus
Small Blue	Cupido minimus	Black Hairstreak	Strymonidia pruni
Mountain Ringlet	Erebia epiphron	White-letter	Strymonidia w-album
		Hairstreak	
Duke of	Hamearis lucina	Brown Hairstreak	Thecla betulae
Burgundy			
Silver-spotted	Hesperia comma	Lulworth Skipper	Thymelicus acteon
Skipper			
Wood White	Leptidea sinapis		

Other Invertebrates – Full Protection under Schedule 5 at all times

Rainbow Leaf-	Chrysolina cerealis	Tadpole Shrimp	Triops cancriformis
beetle			
Spangled Diving-	Graphopterus zonatus	Trembling Sea-mat	Victorella pavida
beetle			
Lesser Silver	Hydrochara caraboides	De Folin's Lagoon	Caecum armoricum
Water-beetle		Snail	
Moccas Beetle	Hypebaeus flavipes	Sandbowl Snail	Catinella arenaria
Violet Click-	Limoniscus violaceus	Freshwater Pearl	Margaritifera
beetle		Mussel	margaritifera
Bembridge	Parcymus aeneus	Glutinous Snail	Myxas glutinosa
Beetle			
New Forest	Cicadetta montana	Lagoon Snail	Paludinella littorina
Cicada			
Wart-Biter	Decticus verrucivorus	Lagoon Sea Slug	Tenellia adspersa
Mole-Cricket	Gryllotalpa gryllotalpa	Northern Hatchet-	Thyasira gouldi
		shell	
Field-Cricket	Gryllus campestris	Tentacled Lagoon-	Alkmaria romijni
		worm	
Norfolk Hawker	Aeshna isosceles	Lagoon Sandworm	Armandia cirrhosa
Dragonfly			



Southern	Coenagrion mercuriale	Medicinal Leech	Hirudo medicinalis
Damselfly			
Fen Raft Spider	Dolomedes fimbriatus	Marine Hydroid	Clavopsella navis
Ladybird Spider	Eresus niger	Ivell's Sea	Edwardsia ivelli
	(cinaberinus)	Anemone	
Fairy Shrimp	Chirocephalus diaphanus	Starlet Sea	Nematosella vectensis
		Anemone	
Lagoon Sand	Gammarus insensibilis	Atlantic Stream	Austropotamobius
Shrimp		(White-clawed)	pallipes
		Crayfish	

Other Invertebrates Protected under Section 9 (1) Possession & 9 (2) (5) Sale

only

Stag Beetle	Lucanus cervus	Roman Snail ²⁰	Helix pomatia
Fan Mussel	Atrina fragilis	Pink Sea-fan	Eunicella verrucosa

Other Invertebrates Protected under Section 9 (4) (a) Damage / Destruction of

Place of Shelter / Protection only

Mire Pill Beetle	Curimopsis nigrita	

Vascular Plant Species - Full Protection under Schedule 8 at all times (previous Scientific name in brackets)

Adder's-tongue	Ophioglossum	Lily – Snowdon	Gagea serotina
Least	lusitanicum		(Lloydia serotina)
Alison- Small	Alyssum alyssoides	Marsh-mallow –	Malva setigera
		Rough	(Althaea hirsuta)
Broomrape –	Orobanche	Milk-parsley –	Selinum carvifolia
Bedstraw	caryophyllacea	Cambridge	
Broomrape –	Orobanche picridis	Mudwort – Welsh	Limosella aquatica
Oxtongue			



Broomrape –	Orobanche reticulata ²¹	Naiad – Holly-	Najas marina
Thistle		leaved	
Cabbage – Lundy	Coincya wrightii	Orache – Stalked	Atriplex pedunculata
	(Rhynchosinapis wrightii)		(Halimione
			pedunculata)
Calamint – Wood	Clinopodium	Orchid – Early	Ophrys sphegodes
	menthifolium (Calamintha	Spider	
	sylvatica)		
Catchfly – Alpine	Silene suecica (Lychnis	Orchid – Ghost	Epipogium aphyllum
	alpina)		
Centaury –	Centaurium tenuiflorum	Orchid – Lapland	Dactylorhiza lapponica
Slender		Marsh	
Cinquefoil – Rock	Potentilla rupestris	Orchid – Late	Ophrys fuciflora
		Spider	
Clary – Meadow	Salvia pratensis	Orchid – Lizard	Himantoglossum
			hircinum
Club-rush –	Schoenoplectus triqueter	Orchid – Military	Orchis militaris
Triangular	(Scirpus triqueter)		
Colt's-foot –	Homogyne alpina	Orchid – Monkey	Orchis simia
Purple			
Cotoneaster –	Cotoneaster cambricus	Pear – Plymouth	Pyrus cordata
Wild	(C. integerrimus)		
Cotton-grass –	Eriophorum gracile	Pennycress –	Microthlaspi
Slender		Perfoliate	perfoliatum (Thlaspi
			perfoliatum)
Cow-wheat –	Melampyrum arvense	Pennyroyal	Mentha pulegium
Field			
Crocus – Sand	Romulus columnae	Pigmyweed	Crassula aquatica
Cudweed –	Filago pyramidata	Pine - Ground	Ajuga chamaepitys
Broad-leaved			
		1	

 $^{^{21}}$ The Weeds Act 1959 does not apply to thistles $\it Cirsium$ & $\it Carduus$ species supporting this broomrape. A104444-7 www.wyg.com



Cudweed –	Gnaphalium luteoalbum	Pink – Cheddar	Dianthus
Jersey			gratianopolitanus
Cudweed - Red-	Filago lutescens	Pink – Childing	Petrorhagia nanteuilii
tipped			
Cut grass	Leersia oryzoides	Ragwort – Fen	Jacobaea paludosa
			(Senecio paludosa)
Deptford Pink	Dianthus armeria	Ramping-fumitory –	Fumaria reuteri (F.
		Martin's	martinii)
Diapensia	Diapensia lapponica	Rampion – Spiked	Phyteuma spicata
Eryngo – Field	Eryngium campestre	Restharrow – Small	Ononis reclinata
Fern – Dickie's-	Cystopteris dickieana	Rock-cress –	Arabis alpina
bladder		Alpine	
Fleabane –	Erigeron borealis	Rock-cress –	Arabis scabra
Alpine		Bristol	
Fleabane – Small	Pulicaria vulgaris	Sandwort –	Arenaria norvegica ²²
		Norwegian	
Galingale –	Cyperus fuscus	Sandwort –	Minuartia stricta
Brown		Teesdale	
Gentian – Alpine	Gentiana nivalis	Saxifrage –	Saxifraga cernua
		Drooping	
Gentian - Dune	Gentianella amarella	Saxifrage – Tufted	Saxifraga cespitosa
	subsp. occidentalis		
	(Gentianella uliginosa)		
Gentian –	Gentianopsis ciliata	Solomon's-seal –	Polygonatum
Fringed	(Gentianella ciliata)	Whorled	verticillatum
Gentian - Spring	Gentiana verna	Sow-thistle –	Cicerbita alpina
		Alpine	
Germander –	Teucrium botrys	Spearwort –	Ranunculus
Cut-leaved		Adder's-tongue	ophioglossifolius



Gladiolus – Wild Gladiolus illyricus Speedwell – Veronica spicata ²³ Goosefoot – Chenopodium vulvaria Spiked Spiked Stinking Spike-rush – Dwarf Eleocharis parvula Stinking Spike-rush – Dwarf Eleocharis parvula Grass-poly Lythrum hyssopifolia South-stack Tephroseris integrifolia Hare's-ear – Bupleurum falcatum Star-of-Bethlehem Gagea bohemica Sickle-leaved – Early Damasonium alisma Small Strapwort Corrigiola littoralis Stinking Strapwort Corrigiola littoralis Hawk's-beard – Crepis foetida Strapwort Corrigiola littoralis Stinking Stinking Violet – Fen Viola persicifolia Hawkweed – Hieracium northroense Viper's-grass Scorzonera humilis Shetland Starved Ribon-leaved Ribon-leaved Heath – Blue Phyllodoce caerulea Wood-sedge – Carex depauperata Karved Ked Woodsia – Alpine Woodsia alpina Red Red Rational - Starved Starved <	Germander –	Teucrium scordium	Speedwell –	Veronica triphyllos
SpikedGoosefoot -Chenopodium vulvariaSpike-rush - DwarfEleocharis parvulaStinkingSouth-stackTephroseris integrifoliaGrass-polyLythrum hyssopifoliaSouth-stackTephroseris integrifoliaHare's-ear -Bupleurum falcatumStar-of-BethlehemGagea bohemicaSickle-leaved- EarlyDamasonium alismaHare's-ear -Bupleurum baldenseStarfruitDamasonium alismaSmall-StarpowortCorrigiola littoralisHawk's-beard -Crepis foetidaStrapwortCorrigiola littoralisStinking-Violet - FenViola persicifoliaHawkweed -Hieracium northroenseViolet - FenViola persicifoliaNorthroeStorpwortCorrigiola littoralisHawkweed -Hieracium attenuatifoliumWater-plantain -Alisma gramineumWeak-leaved-Eleocharis rubraKiobon-leavedHeath - BluePhyllodoce caeruleaWood-sedge -Carex depauperataHelleborine -Cephalanthera rubraWoodsia - AlpineWoodsia alpinaRed-EquisetumWoodsia - OblongWoodsia ilvensisHorsetail -EquisetumWormwood - FieldArtemisia campestris	Water		Fingered	
Goosefoot – StinkingChenopodium vulvaria Spike-rush – DwarfEleocharis parvulaGrass-polyLythrum hyssopifoliaSouth-stack FleawortTephroseris integrifolia FleawortHare's-ear – Sickle-leavedBupleurum falcatum Juleurum baldenseStar-of-Bethlehem PleawortGagea bohemica – EarlyHare's-ear – Bupleurum baldenseStarfruitDamasonium alismaSmallStarfwitDamasonium alismaHawk's-beard – StinkingCrepis foetidaStrapwortCorrigiola littoralisHawkweed – Hieracium northroenseViolet – FenViola persicifoliaNorthroeViper's-grassScorzonera humilisHawkweed – Hieracium attenuatifolium Weak-leavedWater-plantain – StarvedAlisma gramineum Ribbon-leavedHeeth – Blue Horsetail – BranchedCephalanthera rubra rubraWoodsia – AlpineWoodsia alpinaHorsetail – BranchedEquisetum ramosissimumWoormwood – FieldArtemisia campestris	Gladiolus – Wild	Gladiolus illyricus	Speedwell –	Veronica spicata ²³
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Hound's-tongue – Cynoglossum Wormwood – Field Artemisia campestris	Horsetail –	Equisetum	Woodsia – Oblong	Woodsia ilvensis
	Branched	ramosissimum		
Green germanicum	Hound's-tongue –	Cynoglossum	Wormwood – Field	Artemisia campestris
	Green	germanicum		



Knawel –	Scleranthus perennis ²⁴	Woundwort -	Stachys germanica
Perennial		Downy	
Knot-grass – Sea	Polygonum maritimum	Woundwort –	Stachys alpina
		Limestone	
Leek – Round-	Allium sphaerocephalon	Yellow-rattle –	Rhinanthus
headed		Greater	angustifolius
Lettuce – Least	Lactuca saligna		

Vascular Plant Species – Partial Protection under Section 13 (2) Protection

from commercial exploitation and sale

Bluebell	Hyacinthoides non-	
	scripta	

Bryophytes – Full Protection under Schedule 8 at all times

Anamodon –	Anomodon langifolius	Flamingo Moss	Desmatodon cernuus
Long-leaved			
Blackwort	Southbya nigrella	Frostwort	Gymnomitrion
			apiculatum
Crystalwort –	Riccia bifurca	Glaucous Beard	Barbula glauca
Lizard		Moss	
Earwort – Marsh	Jamesoniella undulifolia	Green Shield Moss	Buxbaumia viridis
Feathermoss –	Hygrohypnum polare	Hair Silk Moss	Plagiothecium piliferum
Polar			
Flapwort –	Leiocolea rutheana	Knothole Moss	Zygodon forsteri
Norfolk			
Grimmia – Blunt-	Grimmia unicolor	Large Yellow	Scorpidium turgescens
leaved		Feather Moss	
Petalwort	Petalophyllum ralfsii	Millimetre Moss	Micromitrium tenerum
Lindenberg's	Adelanthus	Multi-fruited River	Cryphaea lamyana
Leafy-Liverwort	lindenbergianus	Moss	

²⁴ Includes both subspecies: *perennis* & *prostratus* A104444-7 www.wyg.com



Feather-moss	Drepanocladus	Nowell's Limestone	Zygodon gracilis
Slender Green	vernicosus	Moss	
Alpine Copper-	Mielichoferia meilicoferia	Rigid Apple Moss	Bartramia stricta
Moss			
Baltic Bog-Moss	Sphagnum balticum	Round-leaved	Rhynchostegium
		feather Moss	rotundifolium
Blue Dew-Moss	Saelania glaucescens	Schleicher's	Bryum schleicheri
		Thread Moss	
Blunt-leaved	Orthotrichum	Triangular Pygmy	Acaulon triquetrum
bristle-Moss	obtusifolium	Moss	
	• · · · · · ·	T (Casadury array cadama
Bright-Green	Cyclodictyon laetevirens	Turpswort	Geocalyx graveolens
Bright-Green Cave-Moss	Cyclodictyon laetevirens	Turpswort	Geocalyx graveolens
	Cyclodictyon laetevirens Barbula cordata	Turpswort Vaucher's Feather	Hypnum vaucheri
Cave-Moss			
Cave-Moss Cordate Beard		Vaucher's Feather	
Cave-Moss Cordate Beard Moss	Barbula cordata	Vaucher's Feather Moss	Hypnum vaucheri
Cave-Moss Cordate Beard Moss Cornish Path	Barbula cordata	Vaucher's Feather Moss	Hypnum vaucheri

Stoneworts – Full Protection under Schedule 8 at all times

Bearded	Chara canescens	Foxtail Stonewort	Lamprothamnium
Stonewort			papullosum

Lichens – Full Protection under Schedule 8 at all times

New Forest	Enterographa elaborata	Forked Hair Lichen	Bryoria furcellata
Beech Lichen			
Snow Caloplaca	Caloplaca nivalis	Golden Hair Lichen	Teloschistes flavicans
Tree	Catapyrenium	Orange-fruited Elm	Caloplaca luteoalba
Catapyrenium	psoromoides	Lichen	
Laurer's Catillaria	Catillaria laurei	River Jelly Lichen	Collema dichotomum



Convoluted	Cladonia convoluta	Starry Breck Lichen	Buellia asterella
Cladonia			
Upright Mountain	Cladonia stricta	Caledonia	Pannaria ignobilis
Cladonia		Pannaria	
Goblin Lights	Catolechia wahlenbergii	New Forest	Parmelia minarum
		Parmelia	
Elm Gyalecta	Gyalecta ulmi	Oil Stain	Parmentaria chilensis
		Parmentaria	
Tarn Lecanora	Lecanora archariana	Southern Grey	Physcia tribacioides
		Physcia	
Copper Lecidea	Lecidea inops	Ragged Pseudo-	Pseudocyphellaria
		cyphellaria	lacerata
Arctic Kidney	Nephroma arcticum	Rusty Alpine Psora	Psora rubiformis
Lichen			
Ciliate Strap	Heterodermia	Rock Nail	Calicium corynellum
Lichen	leucomelos		
Coralloid Rosette	Heterodermia	Serpentine	Selanopsora liparina
Lichen	propagulifera	Selanopsora	
Ear-lobed Dog	Peltigera lepidophora	Sulphur Tresses	Alectoria ochroleuca
Lichen			

Lichens – Partial Protection under Section 13 (2) Commercial Exploitation and Sale Only

Tree Lungwort Lobaria pulmonaria

Fungi – Full Protection under Schedule 8 at all times

Royal Bolete	Boletus regius	Oak Polypore	Buglossosporus
			pulvinus
Hedgehog	Hericium erinaceum	Sandy Stilt Ball	Battaria phalloides
Fungus			

Invasive plant species listed in Schedule 9

A104444-7	
www.wyg.com	



Australian swamp	Crassula helmsii	Japanese rose	Rosa rugosa
stonecrop or New			
Zealand			
pygmyweed			
Californian red	Pikea californica	Japanese seaweed	Sargassum muticum
seaweed			
Curly waterweed	Lagarosiphon major	Laver seaweeds	Porphyra spp
		(except native	
		species)	
Duck potato	Sagittaria latifolia	Parrot's-feather	Myriophyllum
			aquaticum
Entire-leaved	Cotoneaster integrifolius	Perfoliate	Smyrnium perfoliatum
cotoneaster		alexanders	
False Virginia	Parthenocissus inserta	Pontic	Rhododendron
creeper		rhododendron	ponticum
Fanwort or	Cabomba caroliniana	Purple dewplant	Disphyma crassifolium
Carolina water-			
shield			
Few-flowered	Allium paradoxum	Red algae	Grateloupia luxurians
garlic			
Floating	Hydrocotyle	Rhododendron	Rhododendron
pennywort	ranunculoides		ponticum ×
			Rhododendron
			maximum
Floating water	Ludwigia peploides	Small-leaved	Cotoneaster
primrose		cotoneaster	microphyllus
Giant hogweed	Heracleum	Three-cornered	Allium triquetrum
	mantegazzianum	garlic	
Giant kelp	Macrocystis spp.	Variegated yellow	Lamiastrum
		archangel	galeobdolon subsp.
			argentatum

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Giant knotweed	Fallopia sachalinensis	Virginia creeper	Parthenocissus
			quinquefolia
Giant rhubarb	Gunnera tinctoria	Wakame	Undaria pinnatifida
Giant salvinia	Salvinia molesta	Wall cotoneaster	Cotoneaster
			horizontalis
Green seafingers	Codium fragile	Water fern	Azolla filiculoides
Himalayan	Cotoneaster simonsii	Water hyacinth	Eichhornia crassipes
cotoneaster			
Hollyberry	Cotoneaster bullatus	Water lettuce	Pistia stratiotes
cotoneaster			
Hooked	Asparagopsis armata	Water primrose	Ludwigia grandiflora
asparagus			
seaweed			
Hottentot fig	Carpobrotus edulis	Water primrose	Ludwigia uruguayensis
Hybrid knotweed	Fallopia japonica ×	Waterweeds	Elodea spp.
	Fallopia sachalinensis		
Indian	Impatiens glandulifera	Yellow azalea	Rhododendron luteum
(Himalayan)			
balsam			
Japanese	Reynoutria japonica		
knotweed			

Protection of Badgers Act 1992

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992 (the 1992 Act). Under the 1992 Act it is an offence to: wilfully kill, injure, take or attempt to kill, injure or take a badger; dig for a badger; interfere with a badger sett by, damaging a sett or any part thereof, destroying a sett, obstructing access to a sett, causing a dog to enter a sett or disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger"



Natural Environment and Rural Communities Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. 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 (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.

Hedgerow Regulations 1997

The Hedgerow Regulations were made under Section 97 of the Environment Act 1995 and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

Birds of Conservation Concern



This is a review of the status of all birds occurring regularly in the United Kingdom. It is regularly updated and is prepared by leading bird conservation organisations, including the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and The Royal Society for the Protection of Birds (RSPB).

The latest report was produced in 2015 (Eaton *et al*, 2015) and identified 67 red list species, 96 amber species, and 81 green species. The criteria are complex, but generally:

Red list species are those that have shown a decline of the breeding population, nonbreeding population or breeding range of more than 50% in the last 25 years.

Amber list species are those that have shown a decline of the breeding population, nonbreeding population or breeding range of between 25% and 50% in the last 25 years.

Species that have a UK breeding population of less than 300 or a non-breeding population of less than 900 individuals are also included, together with those whose 50% of the population is localised in 10 sites or fewer and those whose 20% of the European population is found in the UK.

Green list species are all regularly occurring species that do not qualify under any of the red or amber criteria are green listed

Global IUCN Red List

The International Union for Conservation of Nature (IUCN) Threatened Species was devised to provide a list of those species that are most at risk of becoming extinct globally. It provides taxonomic, conservation status and distribution information about threatened taxa around the globe.

The system catalogues threatened species into groups of varying levels of threat, which are: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CE), Endangered (EN),

Vulnerable (VU), Near Threatened (NT), Least Concern (LC), Data Deficient (DD), Not

Evaluated (NE). Criteria for designation into each of the categories is complex, and consider several principles.

Local Biodiversity Action Plan (LBAP)



Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities.

Some LBAP's may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision making process.

Wild Mammals (Protection) Act 1996

This Act offers protects a form of protection to all wild species of mammals, irrespective of other legislation, and focussed on animal welfare, rather than conservation.

Unless covered by one of the exceptions, a person is guilty of an offence if he mutilates,

kicks, beats, nails or otherwise impales, stabs, burns, stones, crushes, drowns, drags or asphyxiates any wild mammal with intent to inflict unnecessary suffering.

It's application is typically restricted to preventing deliberate harm to wildlife (in general) during construction works etc.



Appendix C. Relevant Planning Policy and Legislation

National Planning Policy Framework

or project will not adversely affect the integrity of the habitats site." A revised NPPF was issued on 19th February 2019 (Ministry of Housing Communities and Local Government, 2019) and currently supplements government Circular 06/2005, Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System (Office of the Deputy Prime Minister, 2005).

Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. Paragraphs 170 and 174 (as cited above in Section 4.1.1) set out how 'Planning policies and decisions should contribute to and enhance the natural environment'.

Regarding EcIA's and HRA's – any sites identified, or required, as compensatory measures for adverse effects on any Natura 2000/habitats site should also be given the same level as protection as the pSPA's and cSAC's themselves. In addition, when an application is being determined, Paragraph 177 clarifies that:

"The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan

Paragraph 180 is also relevant as;

Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural



environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:...

c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation...

Biodiversity 2020: A strategy for England's wildlife & ecosystem services

Biodiversity 2020 replaces the previous UK Biodiversity Action Plan and sets national targets to be achieved. The intent of Biodiversity 2020, however, is much broader than the protection and enhancement of less common species, and is meant to embrace the wider countryside as a whole.

The priority species and habitats considered under Biodiversity 2020 are the SPI & HPI detailed under NERC Act (see Appendix A for further details).

Local Biodiversity Action Plan

Local Biodiversity Action Plans (LBAPs) identify habitat and species conservation priorities at a local level (typically County by County) and are usually drawn up by a consortium of local Government organisations and



conservation charities. Although they are no-longer managed at a national level many are still reviewed and updated at a local level.

The Greater Manchester Spatial Framework (GMSF), although not published, sets out the plan for development within the Greater Manchester Area over the next two decades, and relevant sections will be referenced.

The Greater Manchester LBAP is the relevant document for this site and it contains the following Habitat & Species Action Plans:

Species Action Plans	
Bittern	Black redstart
Bats	Water vole
European hare	Farmland Birds
Great crested newt	Native black poplar
Twite	Willow tit

Habitat Action Plans	
Grasslands – acid; unimproved neutral; marshy.	Hedgerows
Lowland mossland	Reedbeds
Ponds and Lodges	Canals
Native woodland	Uplands



It should be noted that the existence of a SAP or HAP does not always infer an elevated level importance for those features. These plans may be designed to encourage an increase in these habitats/species, rather than to protect a county-scarce feature (for example).

Local Plans

The site is located in the Bury local council area within the Greater Manchester area.

Unitary Development Plan 1997 will be replaced by Bury Local Plan; but the Local Plan has not yet adopted. Relevant policies are reproduced below. Extracts from the Bury Local Plan Policy Directions 2018 document have also been reproduced below.

Unitary Development Plan

EN6 - CONSERVATION OF THE NATURAL ENVIRONMENT

The Council will retain, protect and enhance the natural environment of the Borough, particularly in relation to areas of ecological, wildlife and geological importance.

EN6/1 - Sites of Nature Conservation Interest (Sites of Special Scientific Interest, National Nature Reserves and Grade A Sites of Biological Importance)

Planning permission will not be granted for development in or in the vicinity of a designated or proposed site of national or county/regional importance (Site of Special Scientific Interest or National Nature Reserve or Site of Biological Importance which has been identified as of national or county/regional importance i.e. Grade A) which would destroy or adversely affect, either directly or indirectly, the nature conservation interest of the site, unless it can



be demonstrated that other material considerations outweigh the special interest of the site.

EN6/2 - Sites of Nature Conservation Interest (Local Nature Reserves and Grade B and C Sites of Biological Importance)

Planning permission will not be granted for development which would damage either directly or indirectly, the nature conversation interests of sites of particular ecological significance (Local Nature Reserves or Grade B and C Sites of Biological Importance) unless conditions can be imposed that would acceptably mitigate those impacts.

EN6/3 - Features of Ecological Value

The effect of land use changes on existing features of ecological or wildlife value will be taken into account when assessing development proposals. Any proposal should seek to retain such features and incorporate them into the development.

EN6/4 - Wildlife Links and Corridors

The Council will seek to consolidate and, where appropriate, strengthen wildlife links and corridors, and will not permit development which would adversely affect identified areas. In particular, the Council will seek to ensure that new development within or adjacent to identified links or corridors contributes to their effectiveness through the design, landscaping and siting of development proposals and mitigation works, where appropriate.

A network of wildlife links and corridors has been defined on the basis of Phase 1 (1990/91) and Phase 2 (1991/92) Habitat Surveys of the Borough. Such areas are important as routes for species migration and dispersal, and often comprise diverse semi-natural habitats. The identified network of wildlife links and corridors connect designated SBI's and other identified areas of high and medium wildlife value. Figure 6 gives a diagrammatic indication of



the broad areas concerned and the more detailed boundaries of these areas are identified on the Proposals Map.

For the purpose of clarification, wildlife corridors are defined as the major routes by which species migrate or disperse. Wildlife links are generally narrower than corridors but perform an equally important function and mainly consist of roadside verges, active or disused railway land and the Manchester, Bolton and Bury Canal.

The wildlife value of land depends to a large extent on its management. Thus, the management of land in accordance with nature conservation principles is necessary to generally enhance the quality and quantity of wildlife habitats. The Bury Wildlife Strategy details the requirements and methods of management for sites of nature conservation value, as well as



promoting the social, educational and environmental benefits accessible natural areas can bring to the local community.

Existing wildlife corridors include:

- the Irwell Valley
- the valley of Holcombe Brook
- the valley of Hawkshaw Brook
- the Kirklees Valley
- the Roch Valley
- Hollins Brook
- Whittle Brook
- the valley of Blackshaw Brook
- the valley of Elton Brook
- Existing wildlife links include:
- the East Lancashire Railway line
- the old railway lines from Bury to Bolton, Holcombe Brook and Ringley
- the M60/M62/M66 corridors
- the Manchester, Bolton and Bury Canal
- Manchester to Bury Metrolink line

EN8 - WOODLAND AND TREES

The Council will support the retention of trees, woods, copses and hedgerows and encourage natural regeneration and new and replacement tree planting throughout the Borough.



EN8/1 - Tree Preservation Orders

The Council will make Tree Preservation Orders where they are needed to protect trees and woodlands.

EN8/2 - Woodland and Tree Planting

The Council will support and encourage new woodland and tree planting in the Borough. In considering development proposals, the Council will encourage the planting of hedges, trees and woodlands using locally native species.

Bury Local Plan Policies Directions

Policy Direction NE1 – Green Infrastructure

It is proposed that the Local Plan should include a policy that seeks to protect and enhance multi-functional green infrastructure and support proposals to improve the connectivity and quality of the network where these accord with other Local Plan policies and proposals. It is considered that the policy should seek to maintain the positive role and function of the green infrastructure network and ensure that proposals for new built-development and the change of use of land and existing buildings that could result in negative impacts are resisted unless it satisfies stated criteria.

Policy Direction NE2 – Biodiversity

It is proposed that the Local Plan should include a policy that seeks to ensure that proposals for new development minimise impacts on the Borough's biodiversity assets and provide **net gains** where possible. It is considered that the policy should specify that where there is potential for new development to have an impact on any of the Borough's biodiversity assets, applicants should be expected to apply the sequential approach as outlined in national planning



policy on biodiversity and geological conservation and provide evidence that any potential impact has been fully assessed and that, where potential impacts have been identified, measures have been taken to avoid, mitigate or compensate. The policy should also set out the factors that will be considered when assessing proposals that would have a potential impact on biodiversity assets.



Appendix D. Survey Timetable

Ecology Survey Calendar

This calendar is a guide to the typical seasonal survey windows within which we usually have to work – it reflects best practice guidance. A number of visits may be required throughout the survey period with factors such as weather and geography potentially impacting dates. We pride ourselves on our innovative approaches and ability to find solutions so please speak to our ecologists before scheduling any work.

OCT **Extended Phase 1 Habitat Survey Botanical Surveys** Lower plants only (mosses & liverworts) sheridata. Lower plants only (mosses & liverworts) Detailed botanical surveys Early species only All fungi including waxcaps Fungi **Breeding Birds** 4 x surveys Wintering Birds 4 x visits **Migratory Birds** Survey methods are possible throughout the year, vegetation can obscure evidence in the summer Mill (**Badgers** Licensable period for disturbance W Buildings **Bat Roost Assessment** Trees **Bats – Emergence and Activity** Hibernation surveys only Activity & emergence surveys Hibernation surveys only Tube surveys are carried out between Apr to Nov **Dormice** Nut search only Nut searches between Aug and Dec 49 Visual surveys Dec to Mar **Red Squirrels** Hair tube surveys throughout the year **Invertebrates** Optimal period varies between species, consult our team before scheduling Surveys are possible all year round, weather and vegetation Otters cover can be limiting factors. Habitat suitability Two surveys required: the first Apr to end Jun, the second Jul to Sep Habitat suitability **Burrow Burrow** Water Voles survey only assessment (to identify breeding territories and latrines) assessment survey only Optimal survey period Apr to Jun Reptiles Habitat suitability Habitat suitability eDNA survey season mid Apr to end Jun assessment only assessment only **Great Crested Newts** 4-6 aquatic surveys between mid-March & mid-Jun (including 2-3 between mid-Apr to mid-May) Habitat suitability No survey - females Habitat suitability White-Clawed Crayfish assessment only release offspring assessment only

E: ecology@wyg.com





Optimal Sub-optimal

al No Survey

Ecology Through The Seasons

SPRING

- The start of the 'typical' ecological survey season – consult us for forthcoming sites to make sure these windows are met.
- Spring is a great time to complete initial Phase 1 habitat surveys
- Key surveys: great crested newts and breeding birds. A good time to carry out reptile surveys – they like the sun after April showers, and dormouse surveys should be set up by the end of Spring to allow completion within the calendar year
- Hedgerow and scrub clearance will
 require pre-works checks for nesting birds
- Reptile and amphibian translocation and mitigation works can start as animals come out of hibernation

SUMMER

- Key surveys: bats, plants and invertebrates
- Although bat surveys during Spring and Autumn are possible, the presence of maternity roosts can only be confirmed in Summer
- Early summer marks the end of the great crested newt and breeding bird survey seasons
- Dormouse surveys set up in Spring will take place throughout Summer
- Summer is also the start of the period when works affecting badger setts may take place under licence

Autumn is the end of most survey periods

AUTUMN

- including bats, reptiles and dormice
- Final survey dates can be hampered by poor weather so allow a buffer in the programme
- Late autumn is also the end of the period in which mitigation for many species may take place as animals become increasingly less active on the approach to hibernation
- Some wintering bird surveys, such as those for SPA qualifying species, commence in Autumn

• Although most survey windows are closed through the winter, many surveys may still take place such as nut searches for dormice and baseline scoping surveys

WINTER

- Winter is the key season for carrying out hibernation surveys for bats and surveys for wintering birds
- It is the optimum season for completing above-ground vegetation clearance works for hedgerows, woodland and scrub, when birds won't be nesting
- Winter is the perfect time to complete desk studies and constraints assessments so there is plenty of time to discuss options before the start of the survey and mitigation seasons