N

Rowley Hill

ROWLEY LANE

ROWLEY HILL

HERMITAGE PARK

SI (FIELD 1)

SI (FIELD 2)

SI (FIELD 3)

SI (FIELD 4)

SI (FIELD 5)

SI (FIELD 6)

SI (FIELD 7)

SI (FIELD 8)

SI (FIELD 9)

LEPTON GREAT WOOD

BELDON BROOK

Path (um)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

D1

LEGEND

- SITE BOUNDARY
- LOW WALL/DRYSTONE WALL (INCLUDING COLLAPSED)
- FENCE
- SCRUB/OVERGROWN HEDGEROW
- INTRODUCED SCRUB ON BOUNDARY OF WITH PROPERTY
- BROAD-LEAVED PLANTATION WOODLAND
- BELDON BROOK
- SMALL SPRING/ SEEPAGE
- SI — POOR SEMI-IMPROVED GRASSLAND
- 1 — MATURE/SEMI-MATURE TREE T1-T37
- 1 — TARGET NOTE LOCATION
- A — AMENITY GRASSLAND
- SI — SEMI-IMPROVED NEUTRAL GRASSLAND
- SPECIES-POOR HEDGE

BAT ACTIVITY TRANSECTS

TRANSECT ROUTE

1 POINT COUNT

BAT PASSES PER 5 MINUTES

- COMMON PIPISTRELLE
- BROWN LONG-EARED
- NOCTULE
- MYOTIS sp.

25 PASS
20 PASS
15 PASS
10 PASS
5 PASS
1 PASS
0.5 PASS

424.03336.00009.27.006.0a Results of Walked Bat Activity Transect Survey.dwg

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ROWLEY LANE, LEPTON

ECOLOGICAL BASELINE & PEA

RESULTS OF WALKED BAT ACTIVITY TRANSECT ROUTE

DRAWING 6

Scale 1:2500 @ A3

Date FEBRUARY 2018

N

SI (FIELD 1)
SI (FIELD 2)
SI (FIELD 3)
SI (FIELD 4)
SI (FIELD 5)
SI (FIELD 6)
SI (FIELD 7)
SI (FIELD 8)
SI (FIELD 9)
SI (FIELD 10)
LEPTON GREAT WOOD
LEPTON GREAT WOOD
BELDON BROOK
ROWLEY LANE
ROWLEY HILL
Rowley Hill
Rowley Hill
HERMITAGE PARK
Hermitage House
Pollington House
Tree Tops
Club
El Sub Sta
Pond
Path (um)
Lepton Great W
Boro Const Bdy
Co-Const Bdy
Sinks
124.6m
131.4m
144.5m
102.0m

A
B
C
D
E

LEGEND

- SITE BOUNDARY
- LOW WALL/DRYSTONE WALL (INCLUDING COLLAPSED)
- FENCE
- SCRUB/OVERGROWN HEDGEROW
- INTRODUCED SCRUB ON BOUNDARY OF WITH PROPERTY
- BROAD-LEAVED PLANTATION WOODLAND
- BELDON BROOK
- SMALL SPRING/ SEEPAGE
- SI — POOR SEMI-IMPROVED GRASSLAND
- 1 — MATURE/SEMI-MATURE TREE T1-T37
- 1 — TARGET NOTE LOCATION
- A — AMENITY GRASSLAND
- SI — SEMI-IMPROVED NEUTRAL GRASSLAND
- SPECIES-POOR HEDGE

BAT PASSES / HOUR

50 PASS
25 PASS
15 PASS
7.5 PASS
3.25 PASS

- STATIC BAT DETECTOR LOCATION AND REFERENCE
- COMMON PIPISTRELLE
- SOPRANO PIPISTRELLE
- NOCTULE
- NOCTULE / LEISLER'S
- BROWN LONG-EARED
- MYOTIS sp.
- NATHUSIUS PIPISTRELLE

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ECOLOGICAL BASELINE & PEA

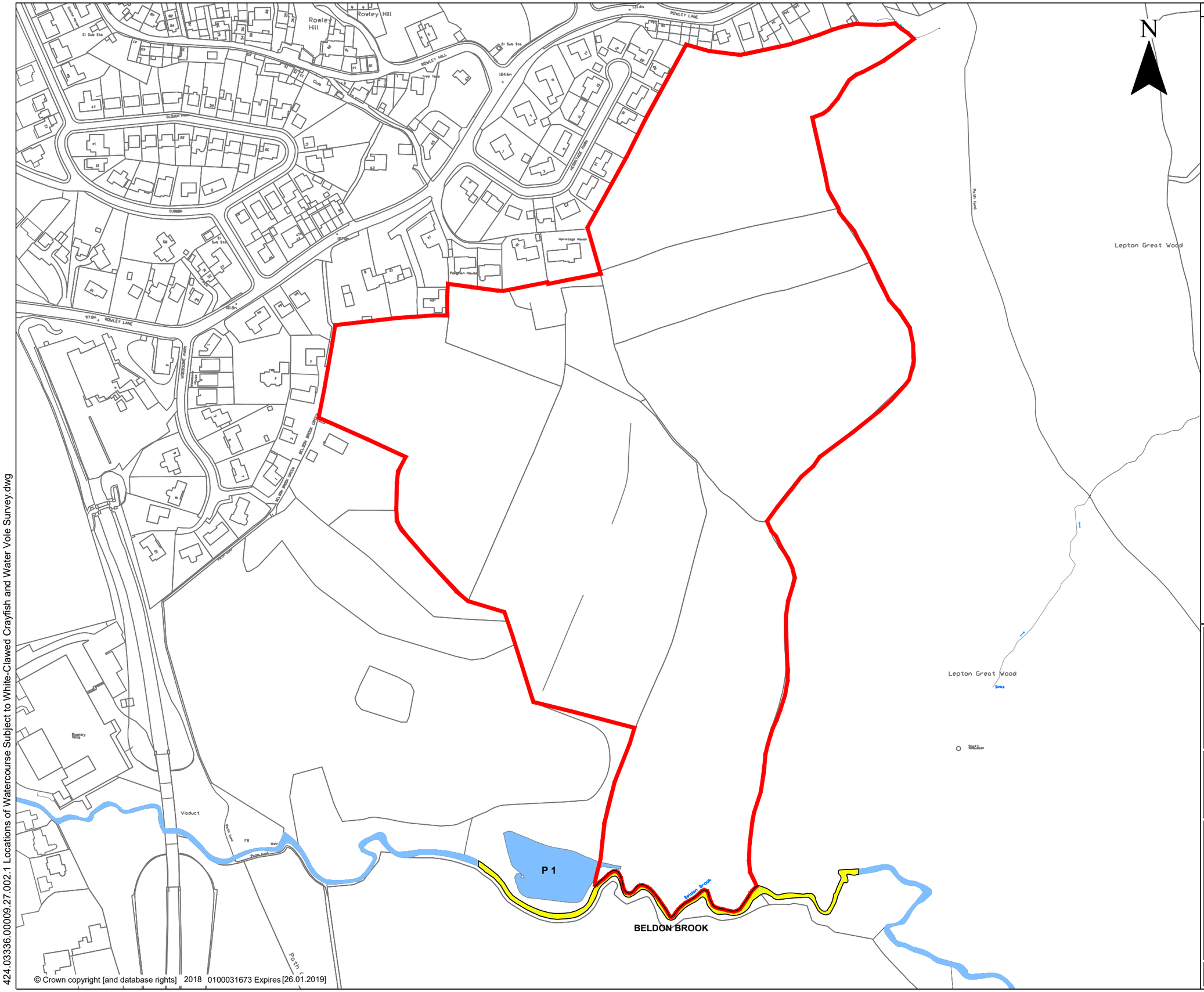
RESULTS OF STATIC BAT DETECTOR SURVEY

DRAWING 7

Scale 1:2500 @ A3

Date FEBRUARY 2018

424.03336.00009.27.007.0a Results of Static Bat Detector Survey.dwg



LEGEND

- SITE BOUNDARY
- POND P1
- EXTENT OF BELDON BROOK SURVEYED

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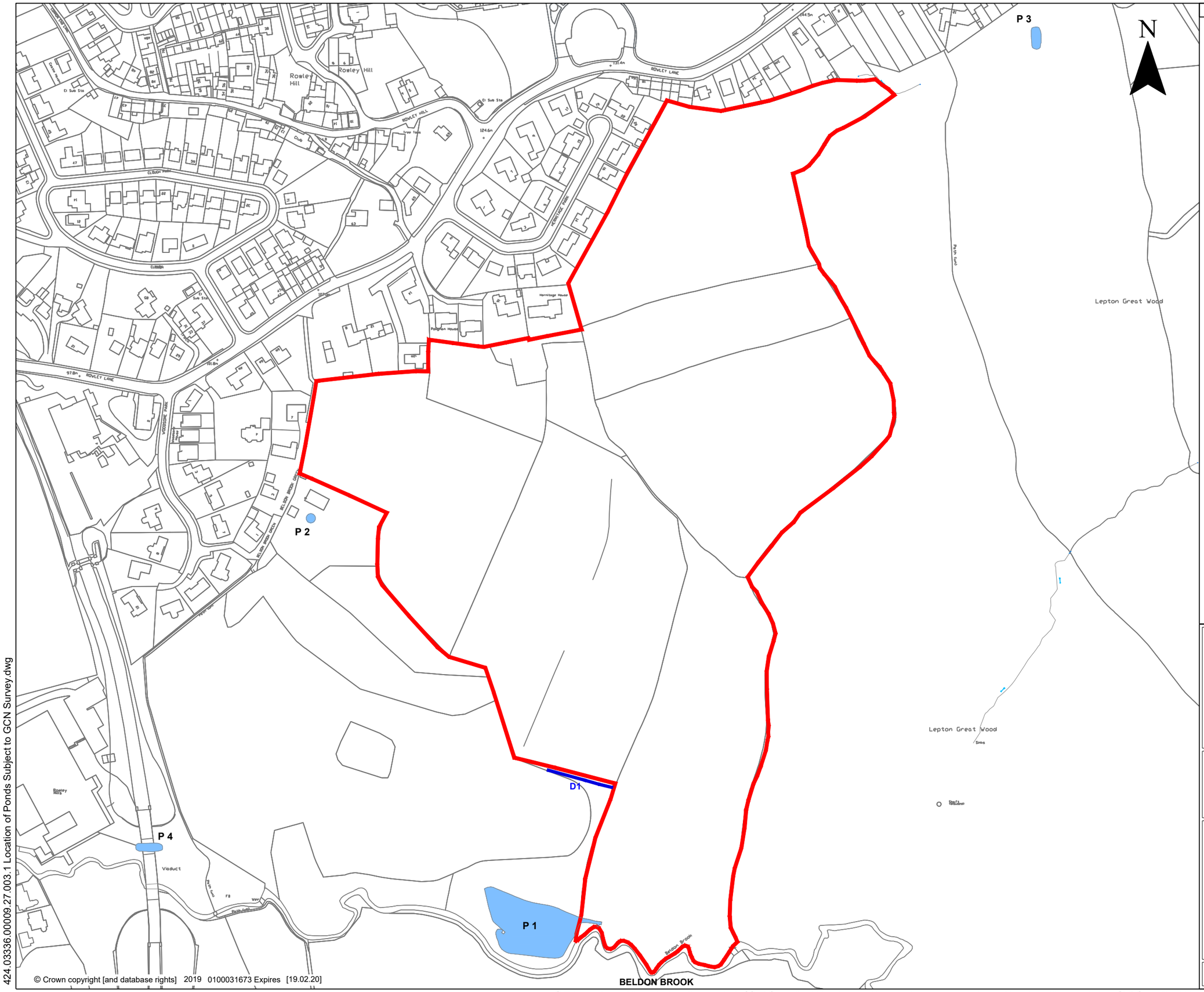
ECOLOGICAL IMPACT ASSESSMENT (EcIA)

LOCATIONS OF WATERBODIES SUBJECT TO WHITE-CLAWED CRAYFISH, OTTER AND WATER VOLE SURVEY

DRAWING 2

Scale	Date
1:2500 @ A3	SEPTEMBER 2019

424.03336.00009.27.002.1 Locations of Watercourse Subject to White-Clawed Crayfish and Water Vole Survey.dwg



LEGEND

- SITE BOUNDARY
- PONDS P1 - P4
- DITCH D1

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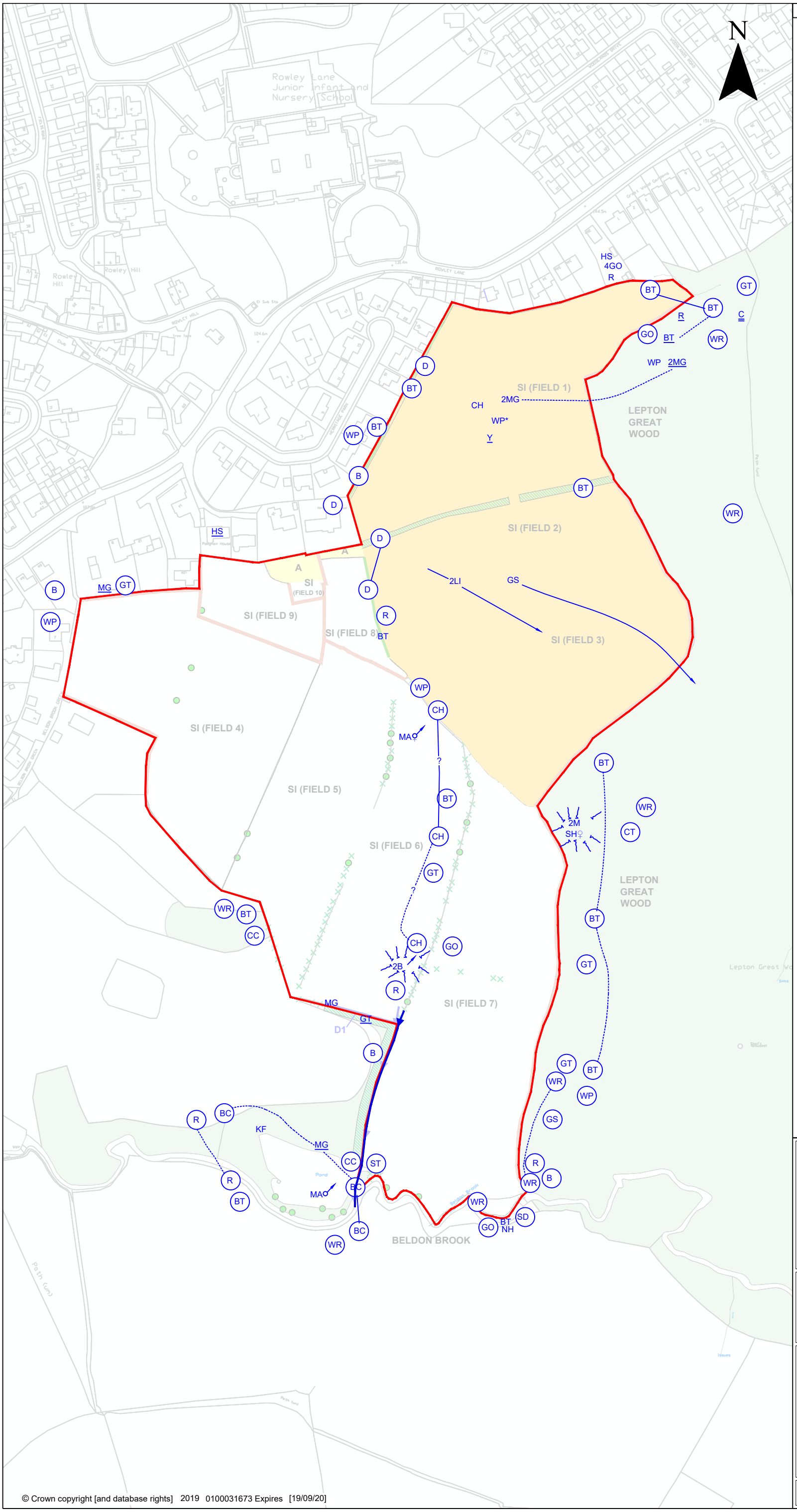
ECOLOGICAL IMPACT ASSESSMENT (EcIA)

LOCATION OF PONDS & DITCH SUBJECT TO GREAT CRESTED NEWT SURVEY (2017)

DRAWING 3

Scale	Date
1:2500 @ A3	SEPTEMBER 2019

424.03336.00009.27.003.1 Location of Ponds Subject to GCN Survey.dwg



LEGEND

R	A CALLING BIRD
R	A BIRD REPEATEDLY GIVING ALARMS WITH STRONG TERRITORIAL SIGNIFICANCE
R	BIRD IN SONG
2R	AGGRESSIVE ENCOUNTER BETWEEN TWO BIRDS
R*	BIRD ON A NEST
♂	MALE BIRD
♀	FEMALE BIRD
♂♀	PAIR OF BIRDS
R fam.	BIRD WITH FAMILY

MOVEMENT OF BIRDS

R →	A CALLING BIRD FLYING OVER (SEEN ONLY IN FLIGHT)
	DOTTED LINE INDICATES A SIMULTANEOUS REGISTRATION (DIFFERENT BIRDS)
	SOLID LINE INDICATES DEFINITELY THE SAME BIRD
R →	A PERCHED BIRD, THEN FLYING AWAY

B	Blackbird
BC	Blackcap
BT	Blue tit
BZ	Buzzard
C	Carrion crow
CH	Chaffinch
CC	Chiffchaff
CT	Coal tit
D	Dunnock
GC	Goldcrest
GO	Goldfinch
GS	Great spotted woodpecker
GT	Great tit
H	Grey Heron
GL	Grey Wagtail
HS	House sparrow
JD	Jackdaw
K	Kestrel
KF	Kingfisher
LI	Linnet
LT	Long-tailed tit
MG	Magpie
MA	Mallard
M	Mistle thrush
NH	Nuthatch
R	Robin
ST	Song thrush
SH	Sparrowhawk
SG	Starling
SL	Swallow
SI	Swift
T	Teal
WW	Willow warbler
WP	Woodpigeon
WR	Wren
Y	Yellowhammer

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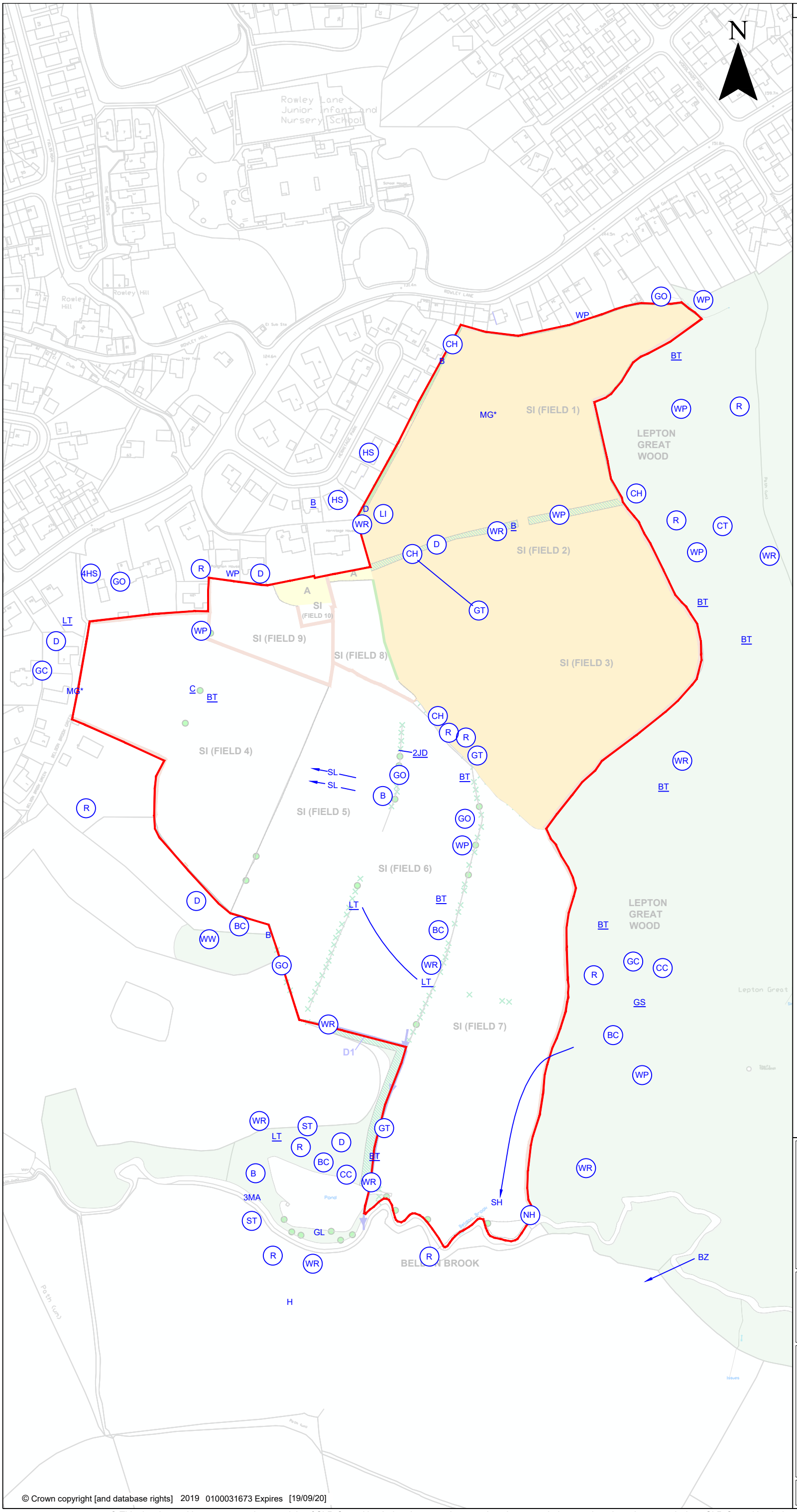
ECOLOGICAL IMPACT ASSESSMENT (EcIA)

RESULTS OF BREEDING BIRD SURVEY - 18.04.2017

DRAWING 4A

Scale	Date
1:2500 @ A3	SEPTEMBER 2019

424.03336.00009.27.004A-C.1 Results of Breeding Bird Survey.dwg



LEGEND

R	A CALLING BIRD
R	A BIRD REPEATEDLY GIVING ALARMS WITH STRONG TERRITORIAL SIGNIFICANCE
R	BIRD IN SONG
2R	AGGRESSIVE ENCOUNTER BETWEEN TWO BIRDS
R*	BIRD ON A NEST
	MALE BIRD
	FEMALE BIRD
	PAIR OF BIRDS
R fam.	BIRD WITH FAMILY

MOVEMENT OF BIRDS

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	SOLID LINE INDICATES DEFINITELY THE SAME BIRD
R	A PERCHED BIRD, THEN FLYING AWAY

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BZ	Buzzard
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CC	Chiffchaff
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JD	Jackdaw
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KF	Kingfisher
LI	Linnet
LT	Long-tailed tit
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MA	Mallard
M	Mistle thrush
NH	Nuthatch
R	Robin
ST	Song thrush
SH	Sparrowhawk
SG	Starling
SL	Swallow
SI	Swift
T	Teal
WW	Willow warbler
WP	Woodpigeon
WR	Wren
Y	Yellowhammer

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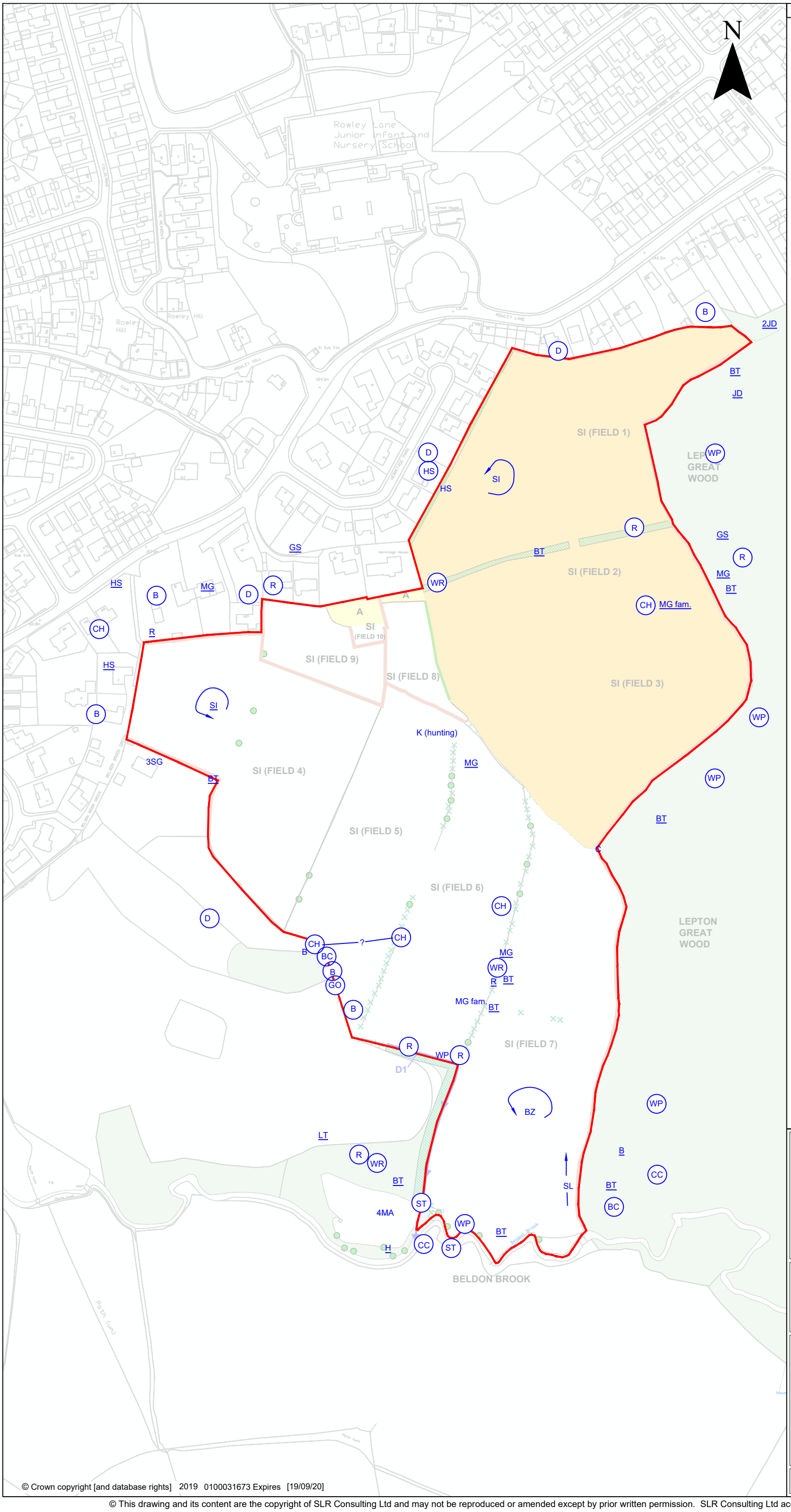
ECOLOGICAL IMPACT ASSESSMENT (EcIA)

RESULTS OF BREEDING BIRD SURVEY - 10.05.2017

DRAWING 4B

Scale	Date
1:2500 @ A3	SEPTEMBER 2019

424.03336.00009.27.004A-C.1 Results of Breeding Bird Survey.dwg



LEGEND

R	A CALLING BIRD
R	A BIRD REPEATEDLY GIVING ALARMS WITH STRONG TERRITORIAL SIGNIFICANCE
R	BIRD IN SONG
2R	AGGRESSIVE ENCOUNTER BETWEEN TWO BIRDS
R*	BIRD ON A NEST
♂	MALE BIRD
♀	FEMALE BIRD
♀♂	PAIR OF BIRDS
R fam.	BIRD WITH FAMILY

MOVEMENT OF BIRDS

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	DOTTED LINE INDICATES A SIMULTANEOUS REGISTRATION (DIFFERENT BIRDS)
	SOLID LINE INDICATES DEFINITELY THE SAME BIRD
R →	A PERCHED BIRD, THEN FLYING AWAY

B	Blackbird
BC	Blackcap
BT	Blue tit
BZ	Buzzard
C	Carrion crow
CH	Chaffinch
CC	Chiffchaff
CT	Coal tit
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GC	Goldcrest
GO	Goldfinch
GS	Great spotted woodpecker
GT	Great tit
H	Grey Heron
GL	Grey Wagtail
HS	House sparrow
JD	Jackdaw
K	Kestrel
KF	Kingfisher
LI	Linnet
LT	Long-tailed tit
MG	Magpie
MA	Mallard
M	Mistle thrush
NH	Nuthatch
R	Robin
ST	Song thrush
SH	Sparrowhawk
SG	Starling
SL	Swallow
SI	Swift
T	Teal
WW	Willow warbler
WP	Woodpigeon
WR	Wren
Y	Yellowhammer

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ECOLOGICAL IMPACT ASSESSMENT (EcIA)

RESULTS OF BREEDING BIRD SURVEY - 09.06.2017

DRAWING 4C

Scale	Date
1:2500 @ A3	SEPTEMBER 2019

424.03336.00009.27.004A-C.1 Results of Breeding Bird Survey.dwg

N

LEGEND

POTENTIAL OF TREES TO SUPPORT ROOSTING BATS

- 1 TREE WITH HIGH POTENTIAL
- 1 TREE WITH MODERATE POTENTIAL
- 1 TREE WITH LOW POTENTIAL
- 1 TREE WITH NEGLIGIBLE POTENTIAL
- 1 TREE WITH CONFIRMED BROWN LONG-EARED BAT ROOST

SI (FIELD 1)
SI (FIELD 2)
SI (FIELD 3)
SI (FIELD 4)
SI (FIELD 5)
SI (FIELD 6)
SI (FIELD 7)
SI (FIELD 8)
SI (FIELD 9)
SI (FIELD 10)
LEPTON GREAT WOOD
LEPTON GREAT WOOD
BELDON BROOK
P 1
D1
ROWLEY LANE
ROWLEY HILL
Rowley Hill
School House
Hermitage House
Polygon House
El Sub Sta
Tree Tops
131.4m
124.6m
144.5m

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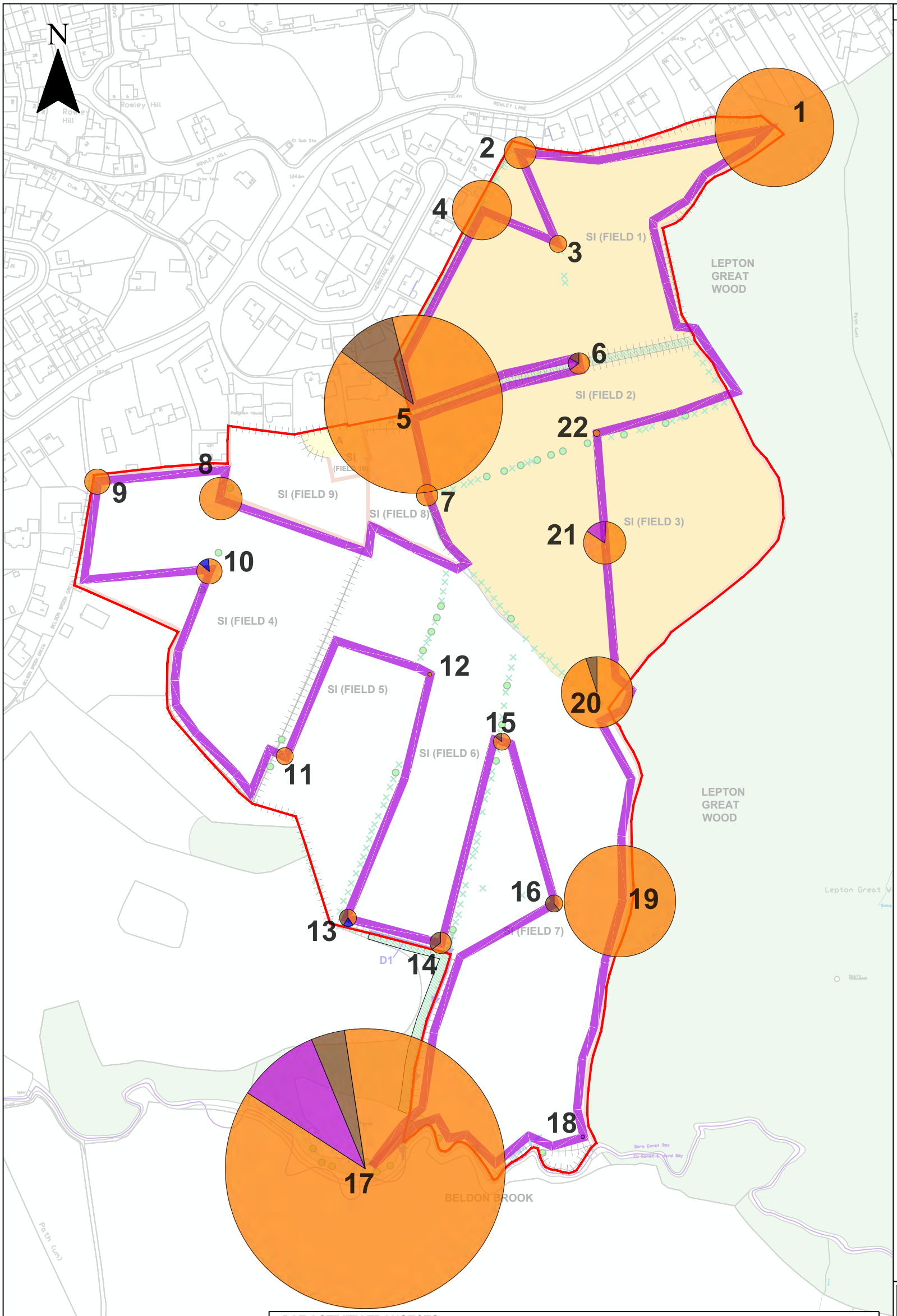
ECOLOGICAL IMPACT ASSESSMENT (EcIA)

POTENTIAL OF TREES TO SUPPORT ROOSTING BATS

DRAWING 5

Scale	Date
1:2000 @ A3	SEPTEMBER 2019

424.03336.00009.27.005.1 Potential of Trees to Support Rooting Bats.dwg



LEGEND

- SITE BOUNDARY
- LOW WALL/DRYSTONE WALL (INCLUDING COLLAPSED)
- FENCE
- SCRUB/SCRUB LINE
- INTRODUCED SCRUB ON BOUNDARY OF WITH PROPERTY
- SEMI - NATURAL BROAD - LEAVED WOODLAND
- PLANTATION BROAD-LEAVED WOODLAND
- BELDON BROOK
- SMALL SPRING/ SEEPAGE
- SI — POOR SEMI-IMPROVED GRASSLAND
- SI — SEMI-IMPROVED NEUTRAL GRASSLAND
- A — AMENITY GRASSLAND
- SPECIES-POOR HEDGE
- 1 — MATURE/SEMI-MATURE TREE T1-T37

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ECOLOGICAL IMPACT ASSESSMENT (EcIA)

RESULTS OF WALKED BAT ACTIVITY TRANSECT ROUTE (2017)

DRAWING 6

Scale	Date
1:2000 @ A3	SEPTEMBER 2019

424.03336.00009.27.006.1 Results of Walked Bat Activity Transect Survey.dwg

N

SI (FIELD 1)

LEPTON GREAT WOOD

SI (FIELD 2)

A

SI (FIELD 10)

SI (FIELD 9)

SI (FIELD 8)

SI (FIELD 3)

B

C

SI (FIELD 4)

SI (FIELD 5)

D

SI (FIELD 6)

LEPTON GREAT WOOD

SI (FIELD 7)

D1

E

BELDON BROOK

LEGEND

- SITE BOUNDARY
- LOW WALL/DRYSTONE WALL (INCLUDING COLLAPSED)
- FENCE
- SCRUB/SCRUB LINE
- INTRODUCED SCRUB ON BOUNDARY OF WITH PROPERTY
- SEMI - NATURAL BROAD - LEAVED WOODLAND
- PLANTATION BROAD-LEAVED WOODLAND
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- SMALL SPRING/ SEEPAGE
- SI — POOR SEMI-IMPROVED GRASSLAND
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- A — AMENITY GRASSLAND
- SPECIES-POOR HEDGE
- 1 — MATURE/SEMI-MATURE TREE T1-T37

BAT PASSES / HOUR

50 PASS

25 PASS

15 PASS

7.5 PASS

3.25 PASS

- A — STATIC BAT DETECTOR LOCATION AND REFERENCE
- COMMON PIPISTRELLE
- SOPRANO PIPISTRELLE
- NOCTULE
- NOCTULE / LEISLER'S
- BROWN LONG-EARED
- MYOTIS sp.
- NATHUSIUS PIPISTRELLE

424.03336.00009.27.007.1 Results of Static Bat Detector Survey.dwg

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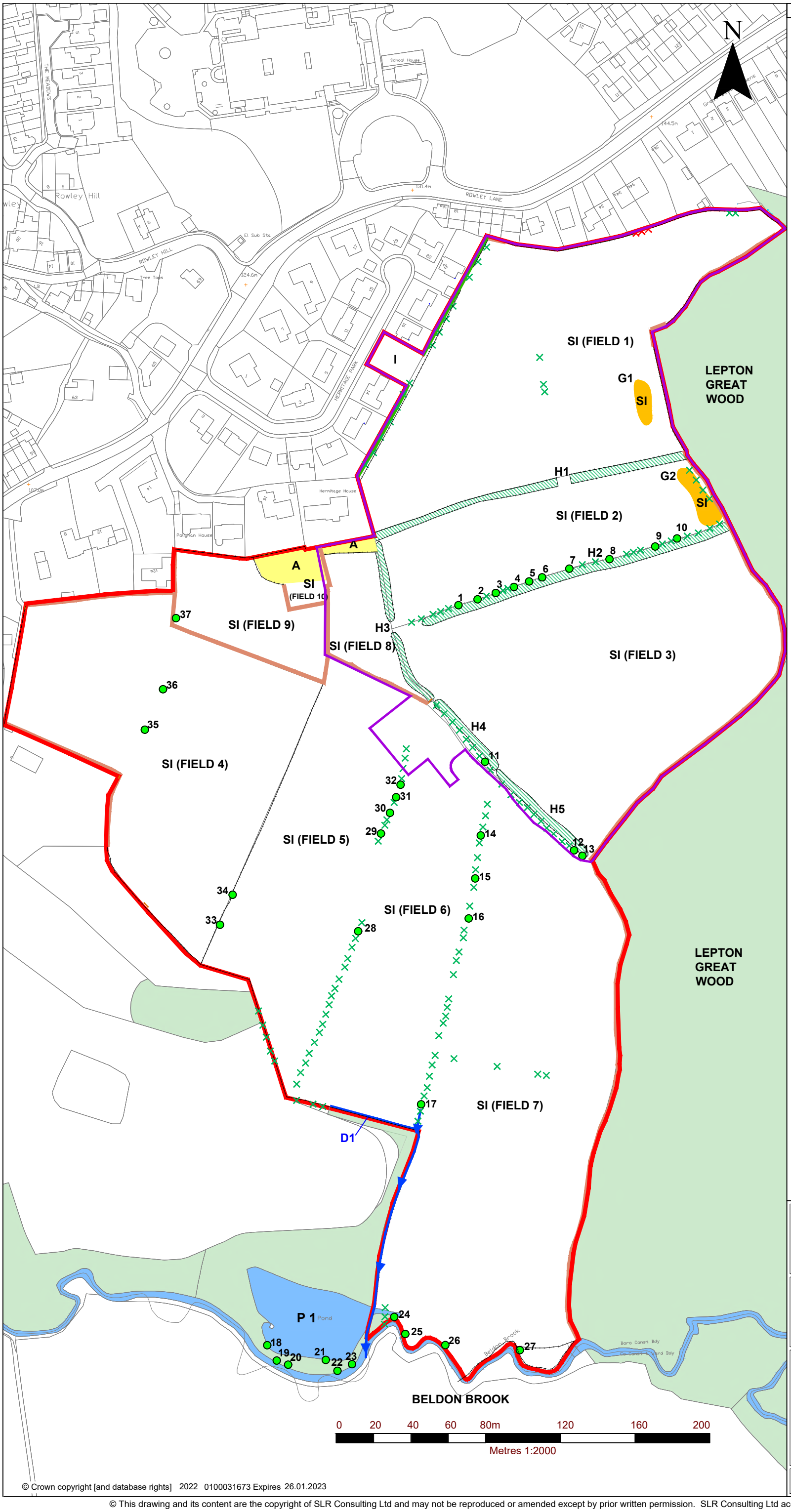
ECOLOGICAL IMPACT ASSESSMENT (EcIA)

RESULTS OF STATIC BAT DETECTOR SURVEY (2017)

DRAWING 7

Scale	Date
1:2500 @ A3	SEPTEMBER 2019



LEGEND

- APPLICATION SITE BOUNDARY
- FULL SURVEY AREA BOUNDARY
- LOW WALL/DRYSTONE WALL (INCLUDING COLLAPSED)
- FENCE
- SCRUB/OVERGROWN HEDGEROW
- INTRODUCED SCRUB ON BOUNDARY WITH PROPERTY
- BROAD-LEAVED WOODLAND
- BELDON BROOK
- SMALL SPRING/ SEEPAGE
- I — IMPROVED GRASSLAND
- SI — POOR SEMI-IMPROVED GRASSLAND
- 1 — MATURE/SEMI-MATURE TREE T1-T37
- A — AMENITY GRASSLAND
- SI — SEMI-IMPROVED NEUTRAL GRASSLAND
- H1 — HEDGE

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LAND OFF HERMITAGE PARK

LEPTON

RESULTS OF EXTENDED PHASE 1 HABITAT SURVEY

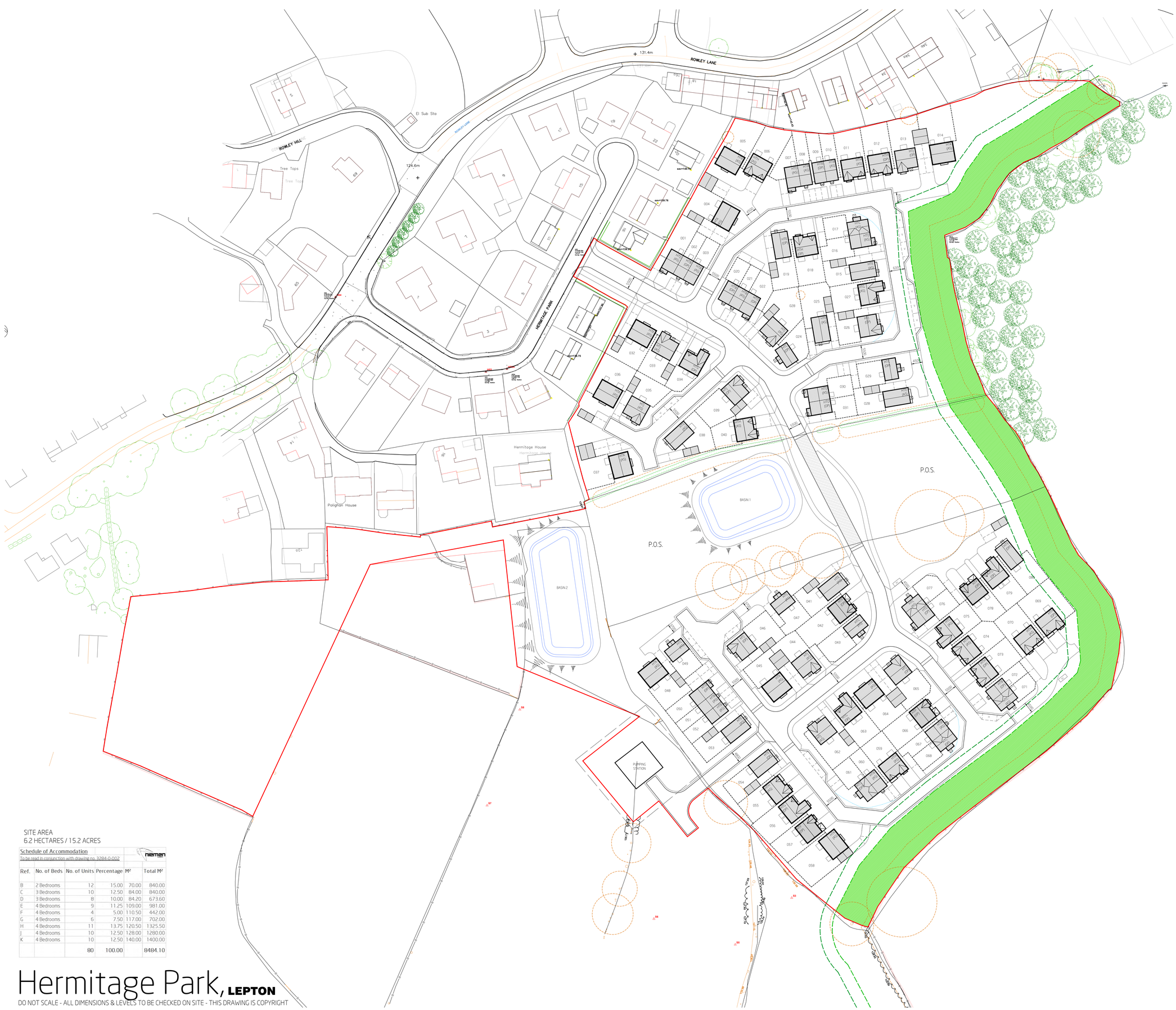
DRAWING 1

Scale	Date
1:2000 @ A3	MARCH 2022

424.10429.00001.27.001.0_Phase_1_Habitat_Plan.dwg

APPENDIX 1

Proposed Site Layout



N

S

KEY:

- ANCIENT WOODLAND 15m OFFSET TO ROADS / PATHS
- ANCIENT WOODLAND 20m OFFSET TO BUILDINGS
- ANCIENT WOODLAND SEMI NATURAL BUFFER
- ROOT PROTECTION ZONE
- FORWARD VISIBILITY SPLAYS

SITE AREA
6.2 HECTARES / 15.2 ACRES

Schedule of Accommodation

To be read in conjunction with drawing no. 3284-0-002

Ref.	No. of Beds	No. of Units	Percentage	M²	Total M²
B	2 Bedrooms	12	15.00	70.00	840.00
C	3 Bedrooms	10	12.50	84.00	840.00
D	3 Bedrooms	8	10.00	84.20	673.60
E	4 Bedrooms	9	11.25	109.00	981.00
F	4 Bedrooms	4	5.00	110.50	442.00
G	4 Bedrooms	6	7.50	117.00	702.00
H	4 Bedrooms	11	13.75	120.50	1325.50
J	4 Bedrooms	10	12.50	128.00	1280.00
K	4 Bedrooms	10	12.50	140.00	1400.00
		80	100.00		8484.10

Hermitage Park, LEPTON

revision	date	content	initials
O	06.04.22	RED LINE BOUNDARY REVISED AS PART OF BNG QUALIFICATION	ED
N	24.03.22	LAYOUT ADJUSTED IN LINE WITH ENGINEERS ADJUSTMENTS AND ARCHITECTS ADJUSTMENTS.	JB
M	22.02.22	HT DRAWINGS REVISED TO SHOW PATIOS TO REAR DOORS	ED
L	22.09.21	GARAGES TO PLOTS 41&54 REMOVED FROM RPA	ED
K	13.09.21	KERB RADII TO HERMITAGE RD REVISED TO TIE INTO EXISTING KERBLINE	ED
J	08.09.21	VIS SPLAY TO PLOTS 26 & 17 REVISED.	ED
I	06.09.21	CENTRELINE RADIUS ADJ PLOT 43. VISIBILITY SPLAYS INCORPORATED WITHIN PROPOSED ADOPTED HIGHWAY LIMIT	ED
H	31.08.21	LAYOUT REVISED IN LINE WITH HIGHWAYS ENGINEERS COMMENTS	ED
G	10.08.21	REVISED SITE LAYOUT	SM
F	02.11.20	ROOT PROTECTION ZONES ADDED AND SITE LAYOUT UPDATED TO SUIT	SN
E	23.10.20	TURNING HEADS IN FRONT OF PLOTS 58-61 & 70-72 UPDATED	SN
D	20.10.20	ANCIENT WOODLAND BUFFER, SUDS BASINS & PUMPING STATION ADDED, SITE LAYOUT AMENDED TO SUIT	SN
C	15.07.20	HIGHWAY UPDATES	SN
B	10.07.20	APARTMENTS ADDED & SITE UPDATED TO SUIT	SN
A	19.06.20	SHARED SURFACES UPDATED	SN

SKETCH
subject to structural review
subject to accurate measured survey

project: PROPOSED RESIDENTIAL HERMITAGE PARK LEPTON, HUDDERSFIELD

client: KCS DEVELOPMENTS

title: PROPOSED SITE LAYOUT

date: 17.06.20 | scale: 1:500 @ A0 | drawn: SN

drawing number: 3284-0-002 O | checked:

niemen architects
Niemen Architects
Deck 2 The Waterscape
42 Leeds & Bradford Road
Kirkstall Leeds LS5 3EG
Tel: 0113 239 5400
Fax: 0113 239 5401
office@niemen.co.uk
www.niemen.co.uk

APPENDIX 2

Landscape Masterplan

KEY

- Site Boundary (6.2ha)
- Proposed Vehicular Access
- Pedestrian Access - Public Footpath
- Potential Vehicular Link to Later Phases
- Potential Pedestrian Link to Later Phases
- Existing Public Right of Way (Retained)
- Residential Plots (80 Units)
- Equipped Play Area
- Public Open Space (POS) - Including mown grass areas for recreation, species-rich grassland and areas of long grass. See inset plan for breakdown.
- Drainage Attenuation Basins with shallow gradients (1:6) and wildflower meadow mix. Banks sown with tussock grassland mix. To form informal children's area when dry.
- Existing Hedgerow (improved) with native mix whip planting.
- Proposed Informal Hedgerow. Native species-rich hedgerows including Blackthorn, Hazel, Hawthorn, Holly, Beech and Field Maple. Planted in staggered double rows and managed to optimise habitat value.
- Species rich grassland with 1m mown path. Thickets of Hawthorn, Blackthorn and Hazel with extra heavy standard Oaks punctuate landscape.
- Oak Tree (T32) removed to create access.
- Existing Trees (Retained)
- Proposed Trees - large native parkland trees within POS including Oaks grown from locally sourced acorns. Street and Garden trees to be a mix of native & non-native species, including nut, fruit and berry bearing varieties. Includes areas of scrubby woodland.
- Mown grass path

rev	details	date
E	Minor Text & Key revisions	21 Apr 22
D	Amended Redline boundary to accommodate BNG requirements.	20 Apr 22
C	Updated landscape elements in grassland boundary.	18 Mar 22
B	Updated architectural layout. Input from Project Ecologist	13 Jan 22
A	Minor layout changes & input from Project Ecologist	3 Nov 20
-	First Issue	26 Oct 20

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Land off Hermitage Park, Lepton

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Landscape Masterplan

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APPENDIX 3

Pre-Application Response from Kirklees Council (22nd June 2021)

Planning
Investment and Regeneration Service
PO Box B93, Civic Centre 3,
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Mark Johnson
Johnson Mowat Planning Ltd.
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Sent by e-mail

Date: 22-Jun-2021
Our Ref: 2021/20117

Dear Mark,

Pre-application enquiry: Outline application for residential development with access at land off Hermitage Way, Lepton, Huddersfield – Local Plan Housing Allocation HS3

Further to our meeting held on 18th May 2021, I am writing to summarise the outcome of our discussions and to confirm the way forward. My apologies for the delay in supplying this formal response.

The pre-application submission seeks advice on the residential development of the first Phase 1 of HS3 – a housing allocation within the Kirklees Local Plan. It proposes the delivery of approximately 110 dwellings (as per covering letter) with vehicular access taken from Hermitage Park. It is supported by a comprehensive suite of supporting documents including:

- Development Framework
- Phasing Plan
- Masterplan
- Arboricultural Survey
- Archaeological Report
- Built Heritage Statement – this refers to 104 units?
- Design and Access Statement
- Flood Risk and Drainage Assessment
- Noise Assessment
- Transport Assessment
- Layout Plan 3284-0-002 Rev F – the layout plan appears to detail 103 units?

I note that the covering letter to this pre-application refers to it as HS3 Phase 2, with Phase 1 being the current planning application for the first phase of HS2 (2020/XX), which is pending consideration.

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Policy Context and Land Use

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that planning applications are determined in accordance with the Development Plan unless material considerations indicate otherwise.

The statutory Development Plan for Kirklees is the Local Plan (adopted 27/02/2019).

The site is allocated in the Local Plan as housing allocation HS3. It is identified as having a gross site area of 12.51 hectares and a net (developable) site area of 8.94 hectares to take acount of the proximity to Lepton Great Wood. The developable area of this proposal extends to 3.12 hectares.

The following site constraints are listed in the Local Plan site allocation box:

- Public rights of way run across the site
- Site lies adjacent to Lepton Great Wood Local Wildlife Site
- Site contains Habitats of Principal Importance
- Protected trees on part of this site
- Site is close to an area of archaeological interest
- Part/all of site is within a High Risk Coal Referral area
- The site lies close to a Grade II listed building
- The trees alongside the public footpath are protected by a TPO.

Other site specific considerations identified in the Site Allocation are as follows:

- The primary access to this site will be via adjacent site allocation HS2 to the south with a secondary access via Hermitage Park;

- Site layout should provide 20m stand-off distance from Lepton Great Wood and maintain hedgerows and protected trees within the site ideally through public open space;

- A joint masterplan is required with adjacent site HS2 to be prepared in accordance with policies in the Local Plan;

- Avoidance, mitigation and/or compensation measures may be required to address any identified adverse ecological impacts in line with Policy LP30. Such measures may involve the retention of habitats and provision of a habitat corridor to be included within a masterplan for the site;

- In order to safeguard the setting of the Grade II Listed Building known as Crow Trees, no development shall take place on the field/area marked as moderate significance in Council's HIA to the west of the public footpath that runs across the site;
-

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- Proposals will identify an appropriate layout, scale, appearance and materials of the proposed residential development to minimise harm to the setting of heritage assets, taking into account the evidence presented in the Council's Heritage Impact Assessment or any updated Heritage Impact Assessment submitted by the applicant as part of the planning application process;

- The public footpath, the historic field boundary and the trees protected by TPOs to the south of Crow Trees shall be retained as part of any development proposals.

In addition, I would highlight the following more detailed parameters:

- As well as the Grade II Listed building at 12 Rowley Lane, it is also relevant to highlght the relative proximity to 1 Woodsome Road and more sigficicantly, the Grade I Listed Woodsome Hall – these are considered in detail below.

- Lepton Great Wood is designated as Ancient Woodland

- Footpath KIR/85/10 crosses the site running from Rowley Lane to the rear of Hermitage House and across towards Lepton Great Wood.

- There are some claimed footpaths across the site. It is not my intention to comment on these further are they are subject to separate process and legislation.

The site is also within a wider mineral safeguarding area relating to SCR (Surface Coal Resource) with sandstone and/or Clay and Shale. Local Plan Policy LP38 therefore applies. This states that surface development at the application site will only be permitted where it has been demonstrated that certain criteria apply. Criterion (c) of policy LP38 is relevant and allows for approval of residential development in specific circumstances. This policy should be addressed in any supporting Planning Statement.

Other relevant local and regional guidance and documents to consider in the prepareation of any future planning application include the following:

- West Yorkshire Low Emissions Strategy and Air Quality and Emissions Technical Planning Guidance (2016)
- Kirklees Housing Strategy (2018)
- Kirklees Strategic Housing Market Assessment (2016)
- Kirklees Interim Affordable Housing Policy (2020)
- Kirklees Joint Health and Wellbeing Strategy and Kirklees Health and Wellbeing Plan (2018)
- Kirklees Biodiversity Strategy and Biodiversity Action Plan (2007)
- Negotiating Financial Contributions for Transport Improvements (2007)
- Providing for Education Needs Generated by New Housing (2012)
- Highway Design Guide (2019)
- Public Rights of Way Improvement Plan (2010)
- Waste Management Design Guide for New Developments (2020)
- Green Street Principles (2017)
- Viability Guidance Note (2020)

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A Draft Housebuilder Design Guide SPD and Open Space SPD were published by the Council in 2020 as part of the 'Quality Places' consultation. These have undergone public consultation but have not yet been adopted. However, their content is consistent with the policies and objectives of the Kirklees Local Plan and it is therefore considered that modest weight can be attached to them at this stage. They may also attract increased weight prior to submission, or during the life, of any forthcoming application.

A Biodiversity Net Gain Technical Advice Note was published at the same time and was also subject to public consultation. It is yet to be adopted but it provides guidance on how Biodiversity Net Gain should be achieved by development within Kirklees in the intervening period before the introduction of the Environment Bill.

The National Planning Policy Framework (2019) is a material consideration of relevance to any forthcoming application. You will be aware that the Government has recently launched a consultation on proposed amendments to the NPPF.

Planning Practice Guidance (published online since March 2014) is also relevant. Other relevant national guidance and documents include:

- National Design Guide (2019)
- Technical housing standards – nationally described space standard (2015, updated 2016)
- Cycle Infrastructure Design – Local Transport Note 1/20 (2020)

Pre-application consultation

As part of the Council's pre-application advice service, we have consulted internal colleagues who would be part of the decision making process should an application be received. Teams and officers consulted to date include Highways Development Management, the Lead Local Flood Authority, Environmental Health (Pollution Control), Public Rights of Way, Waste Strategy, Conservation and Design and the Council's Biodiversity Officer. Consultation with other colleagues and external bodies, including Historic England and Yorkshire Water would be necessary at application stage.

Principle of development

As set out above, the wider HS3 allocation, of which this site is a part, is allocated for housing in the Local Plan with an indicative overall capacity of 312 dwellings. This would represent the first phase of HS3 with the provision of approximately 112 dwellings.

Policy LP65 of the KLP advises that planning permission will be expected to be granted for sites allocated for housing in the Local Plan if proposals accord with the development principles set out in the relevant site boxes, relevant development plan policies and as shown on the Policies Map. Accordingly, in principle, the residential development of this site would be acceptable in accordance subject to an assessment against all other relevant policies within the Local Plan and relevant National Guidance.

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Highways

A key consideration in the assessment of this pre-application proposal is the intention that this first phase should be accessed from Hermitage Park, which is an existing residential cul-de-sac serving approximately 20 residential properties. This would form the only point of access/egress to the site until the wider site spine road serving HS2 and HS3 was constructed. This is a matter that we discussed at length at our recent meeting and was also the subject of a separate meeting between your Highway Consultant and the Council's Highways Development Management (HDM) Officers.

General Masterplanning comments

Hermitage Park forms an adopted highway that is 5.5m in width with two metre footways flanking either side with a gradient of 1:10. Casual (ad-hoc) parking does occur along the extent of Hermitage Park, but it is acknowledged that this is not unusual within any residential street of the same width/specification.

However, Kirklees Highways Development Management have concerns about the quantum of development that is proposed for access via Hermitage Park. Whilst not specifically quantified in the Local Plan, considerations and supporting documents reference the need for a limited number of units to be served by any access taken from Hermitage Park. The view of HDM is that approximately 45/50 dwellings could be adequately served from this estate road. The remainder of the allocation, together with the adjoining allocation (HS2), should be served from a new roundabout off Penistone Road.

It is considered that this approach would be consistent with the masterplanning principles that are evident within the Site Allocation boxes for both HS2 and HS3, requiring a joint masterplan for the two sites and a clear intention that the primary access to HS3 should be provided via site allocation HS2. It is also considered that such an approach to the access to HS3 would secure the 'proper planning' of the area, taking into account the site's relationship to the existing settlement and a consideration of the living conditions of existing residents on Hermitage Park. This is considered further in the design section below. In broad terms, this would allow you to bring forward the section of housing to the north of the POS with the area to the south to be served via HS2.

It is acknowledged that the Local Plan refers to a secondary point of access onto Hermitage Park. However, it is the view of HDM that the spine road should not provide a 'through route' between Hermitage Park and Penistone Road. This would, in effect, facilitate the unrestricted free flow of traffic onto Rowley Lane (via Hermitage Park). Any connection to the wider site should therefore be provided for pedestrians, cyclists and emergency vehicles only.

Within the pre-application submission, whilst it does include a phasing plan, a masterplan drawing and masterplan supporting text, there is insufficient information to explain how HS2 and HS3 would work as a whole with specific regard to infrastructure design and delivery. As part of a future planning submission, a joint masterplan would be therefore be required for HS3 and the adjacent site (HS2) presenting a full understanding of these matters, including the design of the spine road and importantly, how this infrastrcture

would be funded by both site promoters and when it would be provided in order to deliver the site allocations in their entirety. The Council may need to consider securing contributions with the early phases of development towards future highway infrastructure provision.

Highway Layout considerations:

Turning to the proposed layout for Phase 2, the Council would expect that 'Green Street' principles' are applied to the primary roads within the site. This would include a tree-lined verge that separates the road from the footways on both sides of the road.

Assuming that the housing to the south of the POS would be served from HS2, a consistent approach to the design of the spine road linking through to Penistone Road would need to be agreed with the promoter of HS2 and this should be demostrated within any future application.

Parking

Mindful of limited kerbside parking space availability for the purposes of visitor parking, the spine road would require a series of well-spaced inset parking bays along it. This would ensure that the spine road does not see overspill of visitor parking from shared surface areas as proposed and result in vehicles having to cross the centre-line to pass parked vehicles. Further consideration of this issue is required.

HDM are aware of morning and afternoon (school drop-off and collection) related parking at the junction of Rowley Lane and Hermitage Park. This has occurred for some time and it is understood that the school, via their Travel Plan, have communicated with parents/guardians on this matter. However, HDM site-based observations suggest that parking linked to the local school still occurs and that any intensified use of Hermitage Park would only exacerbate the issue, from a free and safe flow of traffic flow perspective.

Resultantly, HDM suggest that funding for Waiting Restrictions and a supporting Traffic Regulation Order would need to be agreed in principle. These would be used to introduce double-yellow line waiting restrictions in the vicinity of the junction of Rowley Lane and Hermitage Park. Such a financial contribution would be confirmed in due course.

Traffic Generation.

Vehicular trip rates calculated using the TRICS database were presented within the Optima Site Access Appraisal prepared in January 2016 to support the allocation of the Site for residential use. Following Highways Development Management feedback, a sensitivity test was undertaken using a bespoke trip rate calculated from the Hermitage Park traffic survey . This concluded 12 (two way) AM trips and 13 (two way) PM trips. A future trip rate of 0.6 (AM) and 0.550 (PM) is therefore accepted by HDM.

Assignment / Distribution.

Kirklees HDM provided details of a population-based gravity model prepared as part of the Local Plan studies based on 2011 Census data. This distribution has been applied within

the Transport Assessment prepared for the adjacent HS2 allocation (application 2020/60/92307/W) and is as follows:

• 32% to the east via Rowley Lane;
• 50% to the north via Penistone Road;
• 7% to the west via Woodsome Road; and
• 11%to the south via Penistone Road.

A separate distribution has been undertaken as part of this Transport Assessment using Census journey to work information using the Kirklees 046 Middle Super Output Area, as follows:

• 35% to the east via Rowley Lane;
• 50% to the north via Penistone Road;
• 6% to the west via Woodsome Road; and
• 9%to the south via Penistone Road.

In terms of trip distribution methodology, HDM agrees that the Kirklees distribution should be applied for the purpose assessing this application.

S38 Team Comments

(Please note that these technical comments are provided for your informaiton. They may need to be considered in the context of wider place-making objectives at the time any application is submitted.)

Access

The site access would be required to be in a form of a simple junction with corner radii of 6m.

The required visibility tangent of x=2.4m by y=25m must be satisfied. The required visibility tangent seems to cross private land belonging to dwelling nos. 14 & 16 on Hermitage Park, which is unacceptable as all visibility tangents are required to be within the highway. The applicant is asked to clarify this matter.

Site Layout

- Provision of visitor bays must be to a ratio of 1:4 to the total number of dwellings proposed. An allowance for 26 visitor parking bays must be made, where current there are none. All visitor parking bays need to be parallel to the proposed internal roads that should be ideally created as lay-bys and staggered across the overall development area. This is not currently presented.

- The main internal road alignment into the site seems angular (jagged) in places and has very tight centreline alignment - this is unacceptable. A minimum 20m centreline radius on the internal road should be used to ensure refuse swept paths of refuse vehicles are not compromised;

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- The proposed main carriageway through the site should be 5.5m width. Note all footways are required to be 2.0m width. Current proposals need to be amended to suit;

- Any shared surfaces are required to be 5.5m with a 0.6m hard margin on either site- this may need to be amended on your current proposals;

- In addition, the proposed roads are required to have forward visibility of 25m throughout and especially around bends. Any bell mouths formed off this road should be staggered 25m apart and have visibility splay tangent with a y distance of 25m and x distance of 2.4m. Current proposals may need to be amended to suit if they do not comply;

- The junction near proposed apartment parking space nos. 036-047 seems to have a visibility tangent to the left, while exiting this junction crosses private green space. The proposed footway should be widened to include all areas required for visibility;

- All corner radii are required to be 6m minimum to assist with refuse swept path movements, this is to also be required at the proposed turning head areas too;

- Vertical speed control features (e.g., speed tables) are discouraged- However, if proposed should be less than 60m apart for them to be effective;

- Visibility envelope around bends is required to be illustrated to ensure any proposed plots do not interfere. Initially, a sight stopping distance of 25m is to be used but can be relaxed to 23m if it impacts a proposed plot location. Current proposals need to be amended to suit;

- A loop road is proposed from plot no. 004 to 027, which has sharp angles turns near plot no. 019 & 029. Visibility envelopes around these sharp angles are required to ensure the proposed plot position (including driveway areas) are not encroached, which would be unacceptable to S38;

- Where on street parking is envisaged a swept path analysis is required to demonstrate that a Kirklees Refuse Vehicle can manoeuvre;

- No swept path analysis (SPA) drawings have been provided for our assessment for the development layout. The current development proposal shown strongly indicates issues with refuse vehicle manoeuvrability;

- SPA is required on all turning head areas and severe bends to optimise their size in relation to refuse vehicle movements;

- On all turning heads it is required to demonstrate using swept path analyses that when manoeuvring, Refuse Collection Vehicles, shall be able to travel at a minimum speed of 5 km/h. In other words, drivers shall not need to stop to adjust the steering while stationary before setting off again. The Kirklees vehicle

parameters are set out in Table 1 of Emergency Access, Waste Management, Servicing & Deliveries - April 2020 (version 1): -

- Length – 11.85 m
- Width – 2.50 m (including wing mirrors)
- Width when loading – 4.10 m
- Working height – 6.00 m
- Turning circle (wall to wall) – 22.07 m (diameter)
- Turning circle (between kerbs) – 17.88 m (diameter)
- Gross vehicle weight – 32 t

-Bin collection points need to be shown, as they are required to assess if the refuse vehicle can effectively access them with the adoptable Section 38 carriageway area;

-Around tight bends in the carriageway consideration should be given to making provisions for overrun areas or localised carriageway widening where required following SPA checks;

-To transition from the widened existing tarmacked road to the proposed Section 38 block paved road a ramp should be introduced that should be no steeper than 1:12;

-The footway around the turning head on a standard carriageway construction should be 2.0m wide. Where a turning head in block paved construction areas are proposed then a 0.6m hard margin must be provided;

-Around bends SPA for two normal size vehicles being able to cross each other in the contraflow direction needs to be demonstrated too;

-Around tight bends in the carriageway consideration should be given to making provisions for overrun areas or localised carriageway widening;

-New 2-to-3-bedroom dwellings within Kirklees should provide 2 no. off-street car parking spaces, with 4+ bedroom dwellings providing 3 no. off-street car parking spaces. Any new 1–2-bedroom apartments should provide 1 space, where 3+ bed providing 2 no. spaces. One cycle space per unit is recommended;

With regards to the vertical design of the proposed roads, the following needs to be complied with:-

- Given the significant level differences to road with intermittent 1:10 longitudinal gradients can be considered for adoption. A road with 1:10 gradient throughout would not be acceptable as it prejudices against disable users.

- At internal junctions 15m from the tie-in to the main road channel would have a maximum gradient of 1:25 to avoid grounding issues for vehicular users;

-

- While proposing longitudinal gradients it must be noted that given the above gradients up to 5% (1 in 20) are generally considered acceptable for pedestrians, including wheelchair users,

- On Gradients of 8% (1 in 12.5) or above, the physical effort of getting up the slope would be too much for many wheelchair users and there would be a risk of some wheelchairs toppling over. Slopes exceeding 10% (1 in 10) might prove impassable to many non-wheelchair users;

- It is advised that a minimum K value of 3 should be used. Minimum curve length of 20m should be used throughout;

- On footpaths and cycle paths, crossfall should usually be 2.5% (1 in 40). This provides a good balance between the need to remove surface water and the needs of users. Crossfalls steeper than about 3% (1 in 33.3) can be uncomfortable to walk on and, where the slope runs towards a road, can be dangerous, as wheeled users tend to edge down the crossfall. Accordingly, 3% is the desirable maximum crossfall. However, it would generally be necessary to increase crossfalls at vehicle crossings and similar. In these situations, the crossfall may be increased to an absolute maximum of 5% (1 in 20) providing that the increase is minimized, the risks are adequately assessed, and any necessary mitigation measures are implemented;

- Slopes of 10% or over, separate off-carriageway facilities for pedestrians should be provided. These shall be to an independent vertical alignment to the adjacent carriageway to reduce the maximum gradient required. Level 'landings' at spacing appropriate to the gradient and handrails shall be provided for pedestrians. Consideration shall be given to the provision of parallel, alternative routes utilising steps to reduce local gradients;

Walking and Cycling

KLP Policy LP23 advises that the core walking and cycling network as shown on the Policies Map will provide an integrated system of cycle routes, public footpaths and bridleways that provide opportunity for alternative sustainable means of travel throughout the district and provide efficient links to urban centres and sites allocated for development in the Local Plan. This site would be in reasonably close proximity to the proposed core walking/cycling route that runs along the disused railway line to the west of the site, for which proposals are presently being developed.

LP23 advises that proposals shall seek to integrate into existing and proposed cycling and walking routes as identified in the core walking and cycling network by providing connecting links where appropriate; and regard shall also be had to linking to Strategic Green Infrastructure networks as identified on the Policies Map. Where there is an identified need, extensions or enhancements to the existing network can be secured through scheme design, planning conditions and planning obligations if this does not prejudice the overall viability of the development. This matter will be considered further at the planning application stage.

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Design and Heritage Considerations

Policy LP24 of the KLP advises, amongst other matters, that good design should be at the core of all proposals in the district and should be considered at the outset of the development process. Proposals should promote good design by ensuring that the form, scale, layout and details of all development respects and enhances the character of the townscape, heritage assets and landscape.

Policy LP5 of the KLP is also relevant in this instance given the specific requirement within the Site Allocation Document to prepare a joint Masterplan with HS2. Given the importance of the Masterplan to these sites, the requirements of LP5 are set out in full below and must be addressed as part of any future planning application:

Masterplans will be expected to achieve the following (proportionate to the scale of development):

a) An indicative development layout and phasing and implementation plan;
b) High standards of design that respect the character of the landscape, heritage, adjacent and nearby settlements and built development, reflecting the urban to rural transition with appropriate boundary treatment;
c) Make effective use of the site through the application of appropriate densities in terms of scale, height and massing, and its relationship to adjoining buildings and landscape;
d) Create a strong sense of place, ensuring the proposed development makes a positive contribution to local character and distinctiveness;
e) Plan for integrated development, providing for a mix of housing that addresses the range of local housing needs, and encourages community cohesion;
f) Reduce the need for car use and encourage sustainable modes of travel, including provision for public transport, cycle routes, footpaths and bridleways and electric charging points;
g) A network of permeable and interconnected streets and public spaces;
h) Measures to mitigate the traffic impacts of the proposed development on the strategic and local road networks;
i) Timely delivery of physical infrastructure, including sewage connections and fibre optic broadband;
j) Appropriate employment provision and community facilities to serve the new development (e.g. local shops, community halls, schools and health facilities, community sport and fitness provision);
k) Accessible open space to meet identified local needs and/or increase accessibility to existing open spaces;
l) A green infrastructure strategy, providing an integrated network of green spaces;
m) Appropriate measures to mitigate flood risk and ensure that the development is resilient to the potential impacts of climate change;
n) Assessment of the potential for energy efficient design including renewable energy schemes; and
o) Demonstration of a good understanding and respect for the natural environment, its heritage assets and their setting both within the site and in the wider locality,

whether designated or not, and include details of how the natural environment and heritage assets will be conserved and enhanced.

A management plan must be produced as part of the master-planning process to demonstrate how infrastructure and community assets will be maintained and managed following completion of development.

The Council's Design and Conservation Officer has also provided the following detailed comments:

The pre-application proposal indicates a mix of 2-storey detached, semi-detached, and terraced dwellings, plus an apartment block and 'quarter houses' all accessed from Hermitage Park. The submission does not detail the type of accommodation. It has a single point of access proposed from Hermitage Park, a cul-de-sac located along the north-western boundary of the development site. The proposed Phase 2 development would be self-contained, but appears to propose future access from the remaining section of the indicative Local Plan HS3 allocation and HS2, also linked to the site access at Hermitage Park. The combined indicative capacity of HS2 and HS3 in the local plan is some 597 dwellings and this would result in a substantial new neighbourhood.

Policy HS3 of the Kirklees Local Plan Allocations and Designations states that, *"A joint masterplan is required with adjacent site HS2 to be prepared in accordance with policies in the Local Plan".* The housing allocation illustrates that the proposed swathe of housing development would wrap around the east side of Lepton, extending from Penistone Road to the western edge of Lepton Great Wood. The realisation of housing allocations HS2 and HS3 would have a transformative impact on the valley side, considerably extending the settlement. It could also have a fundamental impact on the character of Lepton and the built and natural heritage features that frame the combined site (i.e. HS2 and HS3). Hence the need to demonstrate the potential and cumulative impact of the allocated housing development, as well as its deliverability, by means of a comprehensive Masterplan. The essential policy requirement is to demonstrate how such a significant expansion of Lepton would add to its qualities as a place. The policy framework is thus shaped by the requirements of NPPF paragraphs 127, 130 (Design) and 189,192 and 193 (Historic Environment), as well as Kirklees Local Plan policies LP5 (Master-planning), LP24 (Design) and LP35 (Historic Environment).

The following comments are focused on the heritage impact and the emerging layout design. The above policy framework is intended to manage this substantial development and deliver a high-quality design which demonstrably meets identified housing needs and respects the character, environment, built and natural heritage of the valley-side landscape.

Heritage impact

The pre-application submission for the northern section of HS3 is supported by a Built Heritage Statement focused on the significance of the defined, Phase 2 section of the local plan allocation and considers the direct and indirect impact on identified heritage assets within a radius of 1km from its site centre.

The Phase 2 impact assessment concludes that there will be no direct heritage impacts on the significance of currently known heritage assets. However, the impact assessment records that the proposed development, would potentially result in a degree of indirect heritage impact upon the experience and appreciation (i.e. the setting) of the grade-II listed building Crow Trees to the north-west of the Phase 2 site and the more distant grade-I listed Woodsome Hall across the valley to the west.

As noted in the Built Heritage Assessment, Crow Trees (List Entry 1135342) dates from the C17th and forms part of a building group that includes 8 Rowley Lane, with the pair incorporating elements of medieval fabric (WYHER). The building group is screened from Rowley Lane by the landscaped embankment and faces onto open agricultural land to its south-east aspect with its domestic curtilage, delineated by stone walling adjoins the HS3 development site. The currently proposed Phase 2 housing layout does not include the allocated land to the south of Crow Trees. Consequently, the setting of the grade-II listed building would be unaffected by this Phase 2 residential development and it is considered that the indirect heritage impact on Crow Trees would be negligible.

Woodsome Hall (1184158) is a Grade-I listed building dating from the early-C16th, currently operated as a golf club. It lies across the valley some 2km to the west of the Phase 2 site. The currently proposed residential development accessed from Hermitage Park would be considerably detached from the setting of the hall by both distance and the intervening layers of mature landscape features and extant development (which extend to Penistone Road). The existing fabric of Lepton would consequently act to mitigate any potential impact on the appreciation or experience of Woodsome Hall resulting from the proposed Hermitage Park site (Phase 2). The apparent detachment would be further enhanced in the long-term by additional tree planting within the Phase 2 site and on the western boundary of the site. These would combine to filter views from the west, avoiding any significant diminution of the setting of Woodsome Hall from this northern end of the HS3 allocation. Consequently, the indirect heritage impact of this currently proposed Phase 2 residential development, upon the setting of the Hall are anticipated to be negligible.

In summary, it is considered that the partial development of the HS3 site (Phase 2) would result in no other direct or indirect heritage impacts. However, the impact of the overall development cannot be determined by the narrow focus on a section of the allocated site.

Layout and Design Issues

The potentially transformative impact of the HS2 and HS3 sites appears to have been recognised in the Kirklees Local Plan allocations which require that the development is managed in the context of a detailed Masterplan. The format and content of the necessary Masterplan for the Lepton site allocations should be both comprehensive and demonstrably deliverable, especially given the difficulties of the site access.

LP5 outlines the format for the necessary HS2 and HS3 Masterplan which should be jointly developed with all *"relevant stakeholders….and interested parties"* and the agreed and publicised in consultation with the council *"prior to the submission of a planning application".* Policy LP5 also defines the structure and content of such a Masterplan. The requirements of this policy do not seem to have been considered in the current submission

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The limitations and purpose of the current pre-application submission are understood, but it is clear that neither the indicative proposal for the northern part of the HS3 allocation (Phase 2) nor the *"joint masterplan"* (ref. 338-P-006-Rev E) by Urban Wilderness meet the requirements of the local plan policy or describe how it would *"meet the needs of the local community"* as the submission claims.

The submitted Urban Wilderness "joint masterplan" appears to illustrate an impractical road layout, which would have an inappropriate impact on Hermitage Park and the junction with Rowley Lane. It also indicates an incremental and disconnected development of the allocated housing area. There is no apparent logic for the development of the spinal link road from Penistone Road which is understood to be both within land of a separate ownership and would completely by-pass Phase 1 of the overall development, as illustrated in the Urban Wilderness Phasing Plan (01.March 2021). It would appear that neither Phase 1 nor the pre-application submission of Phase 2 would be connected to (or serviced by) the main vehicular route shown on the sketch "joint masterplan". This must call into question the deliverability of the indicative masterplan, which is considered to be ambiguous and inadequate to deliver a development of this scale in such a sensitive location.

In accordance with requirements of LP5 and LP24, the urban extension to Lepton should be defined and delivered by a detailed and comprehensive Masterplan which includes the following as a minimum:

- A clear network of permeable and interconnected streets and public spaces, providing the structure for the development of the area indicated as appropriate for housing in HS2 and HS3. The street hierarchy should be evident and define character areas, with all new roads being tree lined, and nodes and public spaces emphasised by tree groups.

- The street network and connected public spaces should provide the skeleton for a sequential development layout, to be delivered in stepped and logical phases focused on the delivery and efficient use of services and coordinated by commitment to a Phased Implementation plan.

- The resultant development should demonstrably add to the overall built quality of Lepton and should be characterised by high standards of architectural and landscape design that respect and enhance the character of the settlement, reflecting the urban to rural transition with appropriate boundary treatments. The adjacent Lepton Great Wood and extent green spaces should define the structure and wooded character of the overall development as it extends from Penistone Road. Careful consideration should be given to how the expanded settlement would be viewed across the valley, with a focus on the coherence of the roofscape, materiality and integrated landscape features.

- The scale, mass and built form of the proposed development should be clearly defined to make effective use of the site to accommodate the identified housing requirements, with the application of appropriate densities and building types to

ensure accessibility and an appropriate relationship to adjoining buildings, landscape features and public spaces.

- The development should create a strong sense of place, ensuring the proposed development makes a positive contribution to local character and distinctiveness, focused on the design potential resulting from the topography and strength of extant landscape features.

- The potential for energy efficient designs, including renewable energy schemes should be included within the development form, including utilising the potential of the hillside to orientate properties for maximum light and the potential of power generation.

- The Master plan should demonstrate how the development would providing for a mix of housing that addresses the range of local housing needs and encourages community cohesion with access to a clear network of public open spaces.

- The development should enable the reduction of reliance on the need for car use and encourage sustainable modes of travel, including provision for public transport within the spinal access and safe and attractive cycle routes, footpaths and bridleways. Accommodation should be made for electric charging points along the routes.

- Measures should be included to mitigate the traffic impacts of the proposed development on the strategic and local road networks, including the design form of major road junctions.

- The Masterplan should demonstrate the timely delivery of physical infrastructure, including sewage connections and fibre optic broadband. The proposed attenuation ponds should be detailed to ensure that they are both safe and capable of accommodating space for wildlife.

- The development of HS2 and HS3 should include details of the potential for employment provision and the requirements for community facilities to serve the new development, including connections to or provision of local shops, community halls, schools and health facilities. On-site provision should be made for community sport facilities and fitness provision in accordance with the Local Plan requirements.

- The development should be defined by connected and accessible open spaces to meet both identified local needs and/or wider provision, with accommodation for biodiversity enhancement within the public space.

- The Masterplan should demonstrate how it will connect to the wider Green Infrastructure Strategy, providing an integrated network of green spaces, connecting to the former railway line which cross the site and the network of footpaths.

- The Masterplan should demonstrate a good understanding, respect and sensitivity to the enclosing natural environment, across the whole HS2 and HS3 site and in the

wider locality, including the former railway line and the setting of Lepton Great Wood. The masterplan should include details of how the existing significance of the natural environment would be conserved and enhanced by the overall development.

- The Masterplan should demonstrate how the overall development will achieve a minimum of 10% Biodiversity Net Gain across the whole area. The delivery of the Biodiversity Net Gain should be planned from Phase 1 and include the former Railway line.

- The measures to mitigate flood risk should demonstrated, ensuring that the development as a whole is resilient to the potential impacts of climate change and using the network of public spaces, tree-lined streets and attenuation ponds to capture rainwater and accommodate wildlife.

- The Masterplan should demonstrate a good understanding, respect and sensitivity to the historic character of the hillside and valley. It should demonstrate how the character and setting of heritage assets both within the whole HS2 and HS3 site and in the wider locality, would be preserved or enhanced, including the setting of Woodsome Hall.

- The Masterplan should be concluded with a Management plan which demonstrates how the infrastructure, community assets, landscape features, and space for biodiversity would be maintained and managed following completion of development

- Rather than address the above masterplan requirements, the pre-application 'Phase 2' submission illustrates a housing layout which is poorly integrated into the existing urban fabric and reliant upon a single and point of access. The realisation of the proposed Phase 2 development would be a poorly connected, extensive cul-de-sac

- The entrance to the site of Hermitage Park would be framed by dwellings which are focused on hard-surface, front garden parking, which would result in a poor streetscape on arrival into the site. These units would also be tightly located against the existing properties on Hermitage Park. In particular units 001,006 and 051 would appear to have an intrusive and oppressive impact on the extant properties.

- The streetscape would be defined by the poorly serviced apartment blocks and the 'quarter-house' which would appear to provide poor quality accommodation with limited amenity space, which would be the focus of street views.

- Hard-surfaced front garden parking should be minimised and it is considered that guidance within the Council's Draft Housebuilders Design Guide may be of assistance to you.

- In addition, the purpose of the basins defined for sustainable drainage are unclear and as key site features their landscape should be more evident.

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In conclusion, the scale and potential impact of the substantial housing allocation at Lepton (HS2 and HS3) evidently requires delivery in the context of a carefully conceived and co-ordinated masterplan which is robust enough to manage and maintain the quality of the development over the years of its development. The currently proposed Masterplan is considered to be inadequate as a means to define the framework for the site and address the fundamental development design requirements set by the Local Plan. The submission is only focused on the incremental delivery of an apparently detached housing scheme at the northern end of the housing allocation which is also poorly detailed and conceived. The isolated development of the 'Phase 2' site as shown in the pre-application submission would result in a poorly-connected development which fails to demonstrate that it would enhance the character and urban quality of Lepton.

Based on the pre-application submission, the proposed development would fail to meet the requirements of NPPF paragraphs 127, 130 (Design), 170 (natural environment) and 189, 192 and 193 (Historic Environment). The submission also fails to accord with Kirklees Local Plan policies: LP5 (Master-planning), LP24 (Design), LP30 (Biodiversity) and LP35 (Historic Environment). These matters will therefore need to be addressed through any future planning application and focus on the development of the necessary comprehensive Masterplan.

Housing Density

Policy LP7 of the KLP relates to the efficient and effective use of land and buildings. In relation to housing density, it states that housing density should ensure the efficient use of land, in keeping with the character of the area and the design of the scheme. It advises that developments should achieve a net density of at least 35 dwellings per hectare, where appropriate.

This pre-application indicates the provision of between 103 and 110 dwellings, which would equate to between 34.1 and 35.2 dwellings per hectare.

I would note that Policy LP7 does acknowledge that lower densities may be acceptable, but only if it is demonstrated that this is necessary to ensure the development is compatible with its surroundings, development viability would be compromised, or to secure particular house types to meet local housing need. In this regard, the Council's Draft Residential Design SPD sets out advice to applicants on how the net site area can be influenced by flood risk, slopes, ground conditions, infrastructure, relationship with neighbouring land and buildings, landscape, noise, odour and air quality, trees and hedgerows, biodiversity, connectivity and views. These factors might further reduce the net area of the site and may be factors that would influence the final density of housing on this site. Any application should be supported by a justification of density and housing mix.

Affordable Housing

This site lies within Almondbury Ward and within the Huddersfield South Strategic Housing Market Area.

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The Council's Strategic Housing Team advise that there is significant need for affordable 3+ bedroom homes in Huddersfield South, along with a lesser need for 1 and 2 bedroomed properties. Rates of home ownership are low, at 60%, with 20% of homes rented privately and affordable housing constituting the remaining 20%. House prices in Huddersfield South range from around £85,000 to £160,000 and lower quartile rent in the area is £399 per month.

As you know, in accordance with Policy LP11 of the Local Plan, the Council seek to secure 20% of dwellings on sites with 11 or more units, for affordable housing. On-site provision (housing) is preferred. However, where the council considers it appropriate, a financial contribution to be paid in lieu of on-site provision would be acceptable.

Policy LP11 does allow for a lower proportion where viability evidence demonstrates that there are development costs, which would otherwise prejudice the implementation of the proposal. Clearly, in the absence of a viability appraisal, I am unable to comment on this aspect of the scheme. In preparing your viability appraisal, please refer to the Council's guidance note found at: https://www.kirklees.gov.uk/beta/planning-applications/pdf/viability-guidance-note.pdf

In any event, the affordable housing provision should, in accordance with criterion (c) of LP11, be indistinguishable from market housing in terms of achieving the same high quality of design. They should also be 'pepper-potted' across the site.

Open Space

Policy LP63 of the Local Plan confirms that new housing developments will be required to provide or contribute towards new open space or the improvement of existing provision in the area, unless the developer clearly demonstrates that it is not financially viable for the development proposal. New open space should be provided in accordance with the Council's local open space standards or national standards where relevant. As part of any application, please provide a plan detailing the areas of open space against the open space typologies in the Local Plan. I would encourage you to include provision for allotments within any scheme, to promote a community facility and also, it can be used to promote low carbon produce.

Living conditions of existing and future occupiers

Policy LP24 of the Local Plan confirms that development should provide a high standard of amenity for future and neighbouring occupiers; including maintaining appropriate distances between buildings.

In this instance, the Council would seek to uphold a minimum distance of 21m between rear facing elevations with the properties on Greystone and Mason Court and at least 12m between an existing rear elevation and a flank elevation. An appropriate separation distance will also be expected between dwellings having regard to the local context and to any change in land level/scale of development.

As set out in the design section above, the proximity of Units 001,006 and 051 in particular are considered to be poorly related to existing properties but all units should be assessed having regard to the standards above and also taking into account any changes in level or scale.

In terms of future occupiers, all housing types should seek to provide homes that deliver a high standard of amenity. Consequently, all new build dwellings should have a sufficient internal floor space to meet basic lifestyle needs and provide high standards of amenity for future occupiers. The government has set out Nationally Described Space Standards, although these are not currently adopted in the Kirklees Local Plan. However, in the meantime, the Council will seek to ensure high quality living environments through the application of Policy LP24 and would advise that the NDSS should be met within this context. Sufficient and proportionate garden spaces should form part of any proposal.

The Council's Environmental Health Officer has also provided the following comments with regard to noise impact:

The applicant has submitted an Acoustic Planning Report authored by Lighthouse Acoustics dated 8 October 2020 Ref 0752/APR1. Automated environmental sound measurements were undertaken from 1400hrs on Wednesday 28 September 2020 to 1400hrs on Thursday 29 September 2020. The dominant sound source at monitoring position A was noted to be road traffic from the distant Penistone Road to the West of the site along with birdsong. The dominant sound source at monitoring position B was noted to be frequent road traffic along Rowley Lane (B6433) and during lulls of passing road traffic, road traffic from the distant Penistone Road (A629) to the West of the site contributed towards the measured sound climate. Playground noise from Rowley Lane Junior Infant and Nursey School to the North of the site was noted along with birdsong.

Para 6.6.1 refers to background ventilation and states that in order to achieve the internal daytime and night-time requirements, openable windows must remain closed in Façade Zones A and B. Background ventilation shall therefore be provided by ventilators in the building façade. Para 6.6.2 states purge ventilation will be provided via openable windows at the occupant's discretion. As such, the internal daytime and nigh time requirements may potentially be exceeded during purge ventilation conditions. Acoustic trickle ventilation alone is unlikely to provide sufficient ventilation to help control thermal comfort without the need to open windows and would therefore not be acceptable. Therefore, mechanical ventilation will need to be considered to allow for purge ventilation without being exposed to noise and to prevent overheating in the summer.

Para 6.8 is headed Internal daytime requirements but refers to the external daytime LAeq,16hour environmental sound levels across the proposed site at Ground floor level (2.5m) and first floor level (5m) and this is reflected in the modelling. It shows the gardens of several properties will be exposed to higher levels of noise.
The report is accepted but as the garden levels are exposed to higher levels of noise, it may be prudent to consider redesigning this aspect of the site by repositioning any properties in order to ensure the occupiers of these properties are not exposed to higher levels of noise.

Should a full application be received, then the applicant will be expected to submit a noise report ensuring the site meets with the relevant noise standard.

Please also consider whether there would be any impact upon the Reliance Precision manufacturing unit at Rowley Mills, the operation of which is particularly sensitive to external noise and vibration.

Air Quality

Environmental Health have considered whether the development would have a significant detrimental impact on local air quality and also whether it will introduce sensitive receptors into an area of existing poor air quality.

The site of the proposed development is not within an Air Quality Management Area or within 20m of roads with >10,000 AADT (Annual Average Daily Traffic). However, it site is allocated for housing development in the Kirklees Local Plan Allocations and Designations document adopted on 27th February 2019 under site reference HS3 and as such the applicant has submitted an Air Quality Impact Assessment.

The Air Quality Assessment by SLR (Ref: 410.10429.00002) (version 2) (dated October 2020) classifies the proposed development as Medium in accordance with the West Yorkshire Low Emissions (WYLES) Technical Planning Guidance. The report assesses the impact the development will have on local air quality based on pollutant concentrations for Nitrogen Dioxide (NO2) and Particulate Matter (PM10) and provides a review of existing air quality and the impact the development will have during the construction and operational phases using a base year of 2019 and an opening year of 2025.

A qualitative assessment of construction site dust was undertaken in accordance with the Institute of Air Quality Management (IMAQ) *Guidance on the Assessment of Dust from Demolition and Construction (2016)*. The report concludes that during the construction phase there is the potential for dust generation however this is considered to be temporary and can be controlled by the implementation of a range of mitigation measures which are listed in Table 8-1 Construction Dust Mitigation Measures of the report

For the operational phase, a quantitative assessment was undertaken using the ADMS-Roads model and traffic data provided by Optima Highways the transport consultants for the project. Predicted annual mean NO2 and PM10 concentrations were assessed against the air quality objectives of 40µg/m3 for those pollutants, based on existing sensitive receptor locations. The report concluded that additional vehicle trips arising during the operational phase of the development for the opening year are predicted to have a negligible impact on annual mean NO2 and PM10 concentrations at all sensitive receptors. The traffic data used considered other committed developments in the area and allowance has been made for application 2020/92307 (75 dwellings) submitted for Phase 1 of HS2, and application 2020/90725 (72 dwellings) on HS1. Environmental Health agree with the approach and methodology of the Air Quality Assessment and concur with its conclusions. Therefore, the above pre-application advice is subject to the Air Quality Assessment being submitted in support of any future planning application.

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Public Rights of Way

I am still awaiting a consultation response from PROW, which I will forward in due course.

Ground Conditions

The proposed development site is adjacent to land identified as being potentially contaminated due to its former use as a colliery and spoil heap (our site reference number 26/16). The historic land use at the adjacent site may have an adverse impact on the proposed development. Also due to the large size of the proposed development, contaminated land issues need to be considered in any future application.

Ideally a Phase 1 contaminated land desk top preliminary risk assessment report should be submitted with any future application for approval. If the Phase 1 report identifies potential risks, then a Phase 2 contaminated land intrusive investigation report will also be required. If the Phase 2 report confirms the presence of risks that require remediation, then a remediation strategy report will be required for approval and any necessary remediation carried out and subsequently validated. We will therefore recommend conditions in relation to land contamination issues that have not been addressed in information submitted at the time of an application.

All contamination reports must be prepared by a suitably competent person, as defined in Annex 2 of the National Planning Policy Framework 2019 and in line with current best-practice guidance.

A Coal Mining Risk Assessment will also be required and consultation with the Coal Authority will be necessary at planning application stage.

Trees

The Council's Arboricultural Officer has confirmed that there are no objections to the general principle of development.

To facilitate the highway scheme on site, the proposal seeks to remove T3 of TPO 03/21. This may be acceptable but it will be necessary to demonstrate that the applicant has explored all alternative options and, if the loss of T3 is the only feasible option, appropriate mitigation will be necessary in terms of the loss of public amenity that this protected tree provides.

An adequate buffer zone has been provided between the development and the Ancient Woodland. Consideration needs to be given to enhancement planting within this buffer zone to benefit the Ancient Woodland. A well planned scheme of planting will increase the effectiveness of the buffer zone in terms of buffering the ancient woodland from the proposed residential uses, light, noise, over spill of land use etc. Furthermore, the hedgerows on site will require assessing in relation to the hedgerow regulations.

From the impact assessment that has been provided, it appears that most of the hedgerow running East-West will be retained with only a gap cut through it to facilitate the highway

scheme. The retention of this hedge is welcomed, although the establishment of its value will be important on this site.

In addition, to meet local plan policies and the Council's Highway Design SPD, the proposal would need to be supported by a detailed scheme of landscaping to include new trees and street trees.

Any outline application will need to be supported by an impact assessment as per the one provided at pre-application stage. Any detailed application will also need to be supported by an Arboricultural method statement as well as an impact assessment. Both documents will need to be in accordance with British Standard BS5837.

Flood Risk

The proposed site is located in Flood Zone 1 as the site and surrounding areas has minimal main river flood risk. The closest main river is the Fenay Beck. This is 600m to the west of the site, leaving the main river flood risk very low. Due to the size of the site, however, any application will require the submission of a Flood Risk Assessment and Drainage Statement.

The technical comments from the LLFA have previously been provided to you and are attached again for your information.

Designing out Crime

The West Yorkshire Police Designing Out Crime Officer has provided the following comments:

Overall, the layout of the site is good with plenty of natural surveillance from plots across the site.

One possible issue is the siting of the parking spaces to the east elevation of the 2-storey apartment block shown as 035-047. This parking area will require good natural surveillance from adjoining properties. Could the applicants please review this parking area and confirm any overlook from the neighbouring properties.

The applicant is asked to supply full details of the following for any future planning application for this site.

- Details of boundary treatments to the site perimeter and the individual plots.
- Full details of the site lighting scheme. This must include the un-adopted roads. Bollard lighting is not recommended for streets and roads.
- Details of security measures for the site and plots to be included within the Design and Access Statement under the heading "Security Measures".
- Shared rear access to gardens for terrace plots are not recommended and should be designed out.
- Details are required for the security of garages and sheds. This is to include any security measures for the protection of cycles and motorcycles.

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Please be advised that these comments will need to be considered in the context of wider place making objectives for the development and they can be discussed in more detail as the scheme progresses.

Education

The Council's Education Services have advised that a development of 110 homes would generate a requirement for 23.1 primary school places and 11 secondary school places.

The schools closest to the site would require extra places to facilitate this development and as such, this would amount to a requirement for a contribution in the region of £408,013 to fund schools within the catchment of the site. The precise figure will be calculated at planning application stage.

Public Health

A Health Impact Assessment would be required at outline application stage. This would be assessed with regard to Chapter 8 of the NPPF, Local Plan policy LP47 and the Council's Joint Health and Wellbeing Strategy.

Development at this site would be required to assist in promoting healthy, active and safer lifestyles in accordance with the above planning policies. This can be achieved in many ways – air quality mitigation and improvement, facilitation and encouragement of on-site and local outdoor activity, inclusive design, providing opportunities for inter-generational interaction, new and enhanced public footpath and cycle path connections, careful construction management (including dust control) and other measures can be proposed by your team and future developers of the site.

Waste

The following comments are made without prejudice and purely from the point of view of the Waste Collection Authority.

To meet the operational requirements of the Authority, the following issues need to be addressed. Solving these would help to create an environment that functions safely and efficiently for waste management; and reduce the negative impacts of bin blight on the neighbourhood. This would also enable the proposal to better meet the policy requirements of LP24 part d (vi), LP43 and the Kirklees Highway Design Guide SPD in respect of refuse collection. Ultimately, this would be to the benefit of both residents and the Authority for the life of the development.

Waste collection access:

- Refuse Collection Vehicle access will need to be planned around the largest possible vehicle to enable efficient waste management on this site. The dimensions of this are set out in the Highway Design Guide SPD along with other requirements for an acceptable swept path analysis. The swept path in the draft transport assessment uses the correct vehicle and shows the function of the two turning heads. However, this also needs to show the turns into and out of the site.

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- The looped road layout shown is a welcome approach for waste management as it helps to reduce the number of reverse manoeuvres required. The swept path needs to demonstrate the movement of a full size RCV around each turn to confirm acceptability.

- Parked cars are a perpetual issue for refuse collection. Key places on the road layout that are likely to attract on-street parking (such as alongside blank gable ends) should be factored into the swept path analysis to demonstrate RCV access is still possible in these circumstances.

Waste storage and presentation:

- The sketch layout indicates terraced properties may be included. These need to be carefully considered in terms of waste storage, most likely requiring suitable storage to the front. This must be screened to help reduce the visual impact of bins, to contain any overspill waste from spreading into the street and to help prevent unauthorised use/theft/damage to bins by securing them within. Rear storage is preferable but must be easily accessible for residents and not reached via convoluted pathways routed across the back of multiple other properties as this discourages residents from returning bins to the rear, resulting in bin blight in the streetscene.

- A block of 12 apartments is indicated on the sketch layout. This number of flats will require waste storage provision for 4 x 1100ltr communal bins (or equivalent in other sized containers). Half of these will store recyclable waste and half general waste, conforming to the Authority's fortnightly collection schedule.

- Communal bins should be stored to minimise visual impact and the fire risk presented by these must be mitigated. Bins must be accessible for both residents and collection crews and must be easily moved to the rear of an RCV on the nearest adopted highway.

- Where shared private drives are proposed, these will require communal presentation points for bins. These must be large enough for the number of bins to be collected and be on level, hard surfaces such that grouped bins do not cause obstruction to the highway, drives or pedestrian movement on collection day, and so they are accessible for collection. The Authority will not routinely take a refuse collection vehicle into unadopted roads.

- Layout drawings for approval will need to show bin storage and presentation points for all dwellings to demonstrate sufficient space and efficient collection arrangements – these must not cause obstruction to the highway or driveways, or be blocked in by cars. Access gates must be wide enough for bins to pass through. All dwellings in individual plots will require space to store 3 x 240ltr wheeled bins to ensure future waste segregation requirements can be met.

On large sites such as this, waste storage and collection can require careful consideration and the identification of space within the site layout is critical. As such, the details of these arrangements should not be left to planning conditions.

Full detailed guidance on waste management requirements can be found in in the Kirklees Waste Management Design Guide 2020 (available on the Planning advice notes page at: https://www.kirklees.gov.uk/beta/planning-applications/guidance-and-advice-notes.aspx

Ecology

Chapter 15 of the NPPF and Local Plan policy LP30 apply. A net biodiversity gain needs to be demonstrated in accordance with these policies. Net gain is measurable, and the degree of change in biodiversity value should be quantified using Natural England's Biodiversity Metric 2.0 (see: http://publications.naturalengland.org.uk/publication/5850908674228224). In order to address the above, the proposed development would need to be supported by indicative landscaping information and a calculation of change in biodiversity value using this metric.

I am still awaiting a response from the Council's Ecologist, which I will forward in due course.

Climate Change

At application stage you would need to submit supporting information to demonstrate that the proposed development would achieve net gains in respect of all three sustainable development objectives (economic, social and environmental).

Chapters 2, 9, 14, 15 and 17 of the NPPF are particularly relevant to your proposals in relation to climate change, as are Local Plan policies LP1, LP5, LP20, LP21, LP24, LP26, LP27 and LP28, and the vision and strategic objectives set out in chapter 4 of the Local Plan. The Council approved Climate Emergency measures at its meeting of full Council on 16/01/2019, and you may also be aware of the West Yorkshire Combined Authority's pledge for the Leeds City Region to reach net zero carbon emissions by 2038. Your forthcoming submissions must respond positively to these policies and initiatives.

Measures would be necessary to encourage the use of sustainable modes of transport. A development which was entirely reliant on residents travelling by private car is unlikely to be considered sustainable. At outline application stage, adequate provision for pedestrians, cyclists (including cycle lanes) and new or diverted bus services should be demonstrated. At later (Reserved Matters and conditions) stages, cycle storage and space for cyclists, electric vehicle charging points, and an expanded Travel Plan and other measures would be required.

Consideration should be given to the acheivement of low carbon buildings.

Drainage and flood risk minimisation measures would need to account for climate change.

The Council would also expect the details of the provision of Electric Vehicle Charging Points (EVCP) at the development to be included with any future application. These

proposals should meet the recommendations in the West Yorkshire Low Emission Strategy (WYLES) current at the time of the application.

For residential developments WYLES currently requires a standard EVCP to be provided to every new dwelling that has a dedicated parking. Where the parking provision is not allocated to specific dwellings, a standard EVCP for at least 10% of unallocated parking spaces is required.

A standard EVCP needs to be capable of providing a continuous 16A, Mode 3 charging supply via a Type 2 socket. A continuous 32A supply would be more likely to be future proof and may be the required standard in the future.

For the development of the scale of HS2 and HS3, a District Heating Scheme could be viable and I would encourage you to explore this option further.

Planning obligations and financial viability

A development of this scale would have reasonably substantial impacts that would be likely to require mitigation. To secure such mitigation (and the benefits of the proposed development, where relevant to the balance of planning considerations), planning obligations secured through a Section 106 agreement would be necessary. Heads of Terms are yet to be finalised, but would or may include:

- Infrastructure works and provision;
- Works and contributions required to mitigate highways and transportation impacts (including walking and cycling);
- Education contributions (to be calculated based on numbers of units and size mix).
- Early years and childcare provision (including within education contributions above)
- Open space, including playspaces, on-going management and maintenance responsibilities (including in relation to allotments), and contributions towards playing pitches/fields in the local area;
- Affordable housing;
- Provision and maintenance of drainage systems;
- Sustainable transport (including Travel Plan implementation and monitoring).

Application documents (to be completed)

As a minimum, the following drawings and documents would be necessary for any planning application to be considered valid (assuming an outline submission):

- Application form;
- Location plan (1:1250);
- Topographical survey;
- Site plans;
- Planning Statement (including details of affordable housing and a discussion/balancing of the issues relevant to Local Plan policy LP38 (minerals safeguarding));
- Masterplan requirements detailed in the letter above;

- Draft Section 106 Heads of Terms, Design and Access Statement;
- Heritage Statement;
- Pre-determination archaeological evaluation;
- Transport Statement;
- Travel Plan;
- Flood Risk Assessment and Drainage Strategy;
- Flood Routing Plan;
- Health Impact Assessment;
- Phase 1 contamination report;
- Ecological Surveys, Ecological Impact Assessment and biodiversity net gain calculation;
- Tree Survey, Arboricultural Impact Assessment and Method Statement
- Landscaping proposals;
- Noise Impact Assessment;
- Air Quality Assessment (as above);
- Climate Change Statement;
- Coal Mining Risk Assessment;

The validation requirements would be determined by the final nature of any scheme put forward and clarification can be provided as required in due course.

Conclusion and Way Forward

In summary, the principle of bringing forward a residential development on this site would be acceptable given that it would form the first phase of HS3 – a housing allocation within the Kirklees Local Plan. However, this is subject to the parameters identified in this letter and the key issues below.

- Subject to the detailed design and layout comments also set out in this letter, the provision of between 104 to 110 dwellings (the range referred to within the pre-application submission) on this 3.12 hectare part of the site is likely to be reasonable. Lower densities may be acceptable if it can be demonstrated that this is necessary to ensure the development is compatible with its surroundings, development viability would be compromised, or to secure particular house types to meet local housing need.

- The main issue arising from this pre-application submission is the proposal for all 110 dwellings to be served from Hermitage Park. It is acknowledged that the Local Plan refers to a secondary point of access onto Hermitage Park. It is also recognised that the Local Plan neither identifies a limit to the number of dwellings served via this route, nor precludes it being a through route from Penistone Road via HS2/HS3. However, based upon the pre-application submission, the Council have insufficient information to demonstrate that allowing up to 110 units from Hermitage Park would enable the deliverability of the wider HS2/HS3 development, with particular regard to the provision of highway infrastructure necessary to serve both sites.

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- It is the Council's view at this stage that 45/50 dwellings could be adequately served from Hermitage Park and would reasonably form the first phase of HS3. The remainder of the allocation (including the remainder of the 104-110 dwellings proposed within this pre-app), together with the adjoining allocation (HS2), should be served from a new roundabout off Penistone Road. This approach would be consistent with the masterplanning principles that are evident within the Site Allocation boxes for both HS2 and HS3, requiring a joint masterplan for the two sites and a clear intention that the primary access to HS3 should be provided via HS2. This would also take into account the site's relationship to the existing settlement and a consideration of the living conditions of existing residents on Hermitage Park.

- Any application would need to be supported by a comprehensive Masterplan to demonstrate the potential and cumulative impact of the allocated housing developments at HS2 and HS3, as well as its deliverability. These key requirements of a Masterplan (which will comprise a suite of documents rather than a single plan) are detailed in this letter. It would need to demonstrate that the delivery of HS2 and HS3 (including the necessary infrastructure) is co-ordinated.

- Technical matters should be addressed in accordance with the advice set out above.

I hope this is helpful for now as a summary of our discussions.

I appreciate that this is a complex site and it may necessitate further discussions before any application is submitted. I will wait for your client to pursue the matters discussed and to come back to the Council in due course.

Yours faithfully,

Kate Mansell

Kate Mansell
Development Management Masterplanner

Response from the Council's Bio-diversity Officer below:

Survey effort
A comprehensive Ecological Impact Assessment has been submitted to support the pre-application, which is welcomed. This report contains an updated ecological assessment of the site including a suite of species-specific surveys, as previously recommended by KC Ecology pre-application comments in 2018. The scope of these surveys is considered acceptable; however, it is noted that reference is made to a separate confidential badger report which has not been supplied within the accompanying documents or appendices. Given that badgers are a significant constraint on the HS2 and HS3 allocations, this information will be required in order to give a full pre-app response with regards to this species.

Many of the surveys were undertaken in 2017 with some updates undertaken in 2019. As ecological survey lifespan in generally 12-18 months it is likely many of these will need to be updated at application stage. A suitably qualified ecologist should be consulted to verify validity of the surveys undertaken and produce an updated Ecological Impact Assessment including any updated surveys and the revisions to the master plan.

As highlighted by KC Trees, hedgerows on the site should undergo a hedgerow regulations assessment.

The ecological report submitted indicates that the site is of no importance to barn owl, however, reports of foraging barn owl over the site have been recorded since the survey effort undertaken within the EcIA and therefore additional considerations in relation to this species may be required.

Mitigation and Biodiversity Net Gain

The 20m buffer along the edge of Lepton Great Wood is welcomed, the potential of woodland planting in this area (rather than meadow grassland creation) should be explored to provide higher benefits to the adjacent woodland an associated fauna. In addition, the creation of open space on the site should be carefully designed to draw recreational pressure away from the ancient woodland. Although it is recognised within the Ecological Impact Assessment that the woodland is already heavily utilised by members of the public for activities such as dog walking and mountain biking, the introduction of a substantial number of dwellings (312 in HS3 alone) is likely to increase/intensify this pressure and exacerbate any detrimental impacts. Therefore, areas of open space will need to be designed to be attractive and preferably provide varied and interesting circular walks for dog walkers and other recreational pursuits.

As identified within the Local Plan, a joint masterplan is required with the adjacent HS2 allocation. This aspect will be particularly important with regards to **achieving a Biodiversity Net Gain** on the site which does not appear to have been addressed within the supporting documentation. Factoring this in early will be crucial to the layout of the site, which given the high connectivity of the surrounding habitats and sensitive ecological receptors, would benefit from substantial biodiversity net gains **on-site** to improve local ecological connectivity. The EcIA does outline a series of mitigative measures to reduce or avoid significant impacts to ecological receptors on the site, and these should be used to guide and inform the design process of the layout. In addition, in accordance with the forthcoming Environment Bill and with Kirklees guidance, the Technical Advice Note on Biodiversity Net Gain which has recently been approved at Cabinet, a **10% net gain in Biodiversity** should be demonstrated utilising the most up to date version of DEFRA's Biodiversity Metric. The 10% gain will need to be demonstrated for each phase of the development and across the site masterplan as a whole. The metric excel spreadsheet and any GIS layers used to carry out the calculations should also be supplied along with the application to enable the LPA to verify the calculations. This is a requirement in order

to demonstrate that the proposals are in **accordance with LP30i to "*provide net biodiversity net gains through good design*"** in addition to the recently updated National Planning Policy Framework.

In order to carry out the metric calculations, an updated habitat assessment may be required in order to translate the habitats identified from Phase 1 JNCC habitat classification to UK Hab Classification, and to carry out the required habitat condition assessments.

Full detailed layout/landscaping proposals have not been provided and therefore, further assessment regarding whether the overall masterplan or phased layouts for each allocation address the mitigative requirements identified within the EcIA cannot be carried out. In any case, aside from following the recommendations of the EcIA, the site is split between the Valley Slopes and Pennine Foothills Biodiversity Opportunity Zones, therefore created habitats should meet the objectives of these zones. Provision of full landscaping details and the creation/management of habitats and ecological enhancements should be provided at the application stage within a **Biodiversity Enhancement & Management Plan**.

Required actions-

- **Update Ecological Impact Assessment in line with any layout revisions at application stage including any updated surveys.**
- **Undertake Hedgerow Regulations Assessment**
- **Carryout biodiversity metric calculations pre- and post-development to demonstrate a biodiversity net gain of at least 10%.**

Kind Regards,

Kate

Kate Mansell BA (Hons) MPhil MRTPI
Group Leader - Development Management
Planning & Building Control
Growth and Regeneration
Civic Centre 1, High Street, Huddersfield HD1 2NF
Tel: 01484 221000 x72130
Mobile: 07773 085433
Email: kate.mansell@kirklees.gov.uk
Website: www.kirklees.gov.uk

APPENDIX 4

Survey Dates, Times and Weather Conditions

Timing and weather conditions during the great crested newt presence / absence surveys

Survey visit ref.	Date	Temp (°C)	Cloud cover	Rainfall	Wind Speed
Visit 1	15th March 2017	9	0/8	No rain	Calm
Visit 2	21st April 2017	7	8/8	No rain	Calm
Visit 3	22nd May 2017	15	4/8	No rain	Calm
Visit 4	19th June 2017	22	8/8	No rain	Calm

Timing and weather conditions during the CBC breeding bird surveys

Survey visit ref.	Date	Time	Temp (°C)	Cloud cover	Rainfall	Wind Speed
Visit 1	18th April 2017	08:34 – 10:30 hrs	5 at start; 8 at end	Clear	Dry	Calm
Visit 2	10th May 2017	07:00 – 09:30 hrs	10 at start; 14 at end	Clear	Dry	Calm
Visit 3	9th June 2017	08:10 – 10:10 hrs	13 at start; 15 at end	4/8 cloud cover	Dry	Light air from SW

Timing and weather conditions during evening emergence and dawn re-entry bat surveys

Tree or Building Ref. (see Drawing 1)	Date	Time	Temp (°C)	Cloud and Rainfall	Wind Speed	Wind Direction
T1 – T9, T37	14th August 2017 (Dusk)	20:23 – 22:23 hrs	16 at start; 15 at end	8/8 cloud cover throughout; occasional very light or brief showers	Light air throughout	W
T1 – T9, T28	22nd August 2017 (Dawn)	04:28 – 06:13 hrs	16 at start; 14 at end	7/8 cloud cover at start; 8/8 cloud cover at end; dry throughout	Calm throughout	-

Tree or Building Ref. (see Drawing 1)	Date	Time	Temp (^{0}C)	Cloud and Rainfall	Wind Speed	Wind Direction
T11	22nd August 2017 (Dusk)	20:19 – 22:04 hrs	18 at start; 16 at end	8/8 cloud cover at start; 6/8 cloud cover at end; dry throughout	Light air at start; gentle breeze at end	NE
T12, T13, T22	21st August 2017 (Dusk)	20:06 – 21:55 hrs	17 at start; 16 at end	8/8 cloud cover throughout; occasional light drizzle.	Light air throughout	SW
T12, T13, T25	23rd August 2017 (Dusk)	20:04 – 22:04 hrs	16 at start; 14 at end	3/8 cloud cover throughout	Light breeze at start; light air at end	E
T14, T15, T16, T29, T31	23rd August 2017 (Dawn)	04:31 – 06:16 hrs	14 at start; 12 at end	6/8 cloud cover at start; 7/8 cloud cover at end; dry throughout	Light breeze throughout; dry throughout	NE
T17	10th May 2017 (Dusk)	20:39 – 22:24 hrs	13 at start; 8 at end	1/8 cloud cover at start; 0/8 cloud cover at end; dry throughout	Calm throughout	-
T37	9th August 2017 (Dusk)	20:34 – 22:19 hrs	14 at start; 13 at end	1/8 throughout; dry throughout	Calm throughout	-
Houses on northern boundary of the Site	24th August 2017 (Dawn)	04:25 – 06:10 hrs	13 throughout	2/8 cloud cover throughout; dry throughout	Light breeze throughout	SW
T5, T7	27/8/19 (Dusk)	19.54-21.38	22 at start; 21 at end	3/8 cloud cover at start; 8/8 cloud cover at end; dry at start; light showers at end	Calm throughout	-

Tree or Building Ref. (see Drawing 1)	Date	Time	Temp (^{0}C)	Cloud and Rainfall	Wind Speed	Wind Direction
T1, T7, T11	20 /8/19 (Dusk)	20.11-21.55	14 throughout	8/8 cloud cover throughout; dry throughout	Calm throughout	-
T7, T11	6/9/19 (Dusk)	19.31-21.16	13 at start; 12 at end	2/8 cloud cover at start; 1/8 cloud cover at end; dry throughout	Gentle breeze at start; moderate breeze at end	NW
T14	30/8/19 (Dusk)	19.48-21.33	18 at start; 17 at end	5/8 cloud cover at start; 3/8 cloud cover at end; dry throughout	Strong breeze at start; fresh breeze at end	SW
T14	9/9/19 (Dusk)	19.23-21.08	13 throughout	8/8 cloud cover throughout; dry throughout	Calm throughout	-
T14, T16,	24/8/19 (Dusk)	20.02-21.45	22 at start; 20 at end	2/8 cloud cover at start; 0/8 at end; dry throughout	Calm throughout	-
T16, T28	28/8/19 (Dusk)	19.52-21.37	14 at start; 12 at end	3/8 cloud cover at start; 1/8 cloud cover at end; dry throughout	Gentle breeze throughout	W
T16, T28	5/9/19 (Dusk)	19.33-21.18	14 at start; 12 at end	1/8 cloud cover at start; 2/8 cloud cover at end; dry throughout	Moderate breeze throughout	NW
T28, T29	23/8/19 (Dusk)	20.19-21.44	22 throughout	1/8 cloud cover throughout; dry throughout	Calm throughout	-

Tree or Building Ref. (see Drawing 1)	Date	Time	Temp (^{0}C)	Cloud and Rainfall	Wind Speed	Wind Direction
T11, T31	25/8/19 (Dusk)	19.59-21.44	26 at start; 22 at end	0/8 cloud cover throughout; dry throughout	Calm throughout	-
T9, T31	29/8/19 (Dusk)	19.50-21.14	17 at start; 15 at end	4/8 cloud cover at start; 1/8 cloud cover at end; dry throughout	Fresh breeze at start; gentle breeze at end	SW
T29, T31	8/9/19 (Dusk)	19.26-21.11	15 at start; 12 at end	1/8 cloud cover at start; 8/8 cloud cover at end; dry throughout	Calm throughout	-

Timing and weather conditions during the walked bat activity transect surveys

Date	Time	Temp (^{0}C)	Cloud and Rainfall	Wind Speed	Wind Direction
13th April 2017	20:05 – 22:46 hrs	10 at start; 9 at end	8/8 cloud cover throughout; dry throughout	Light breeze throughout	NW
21st June 2017	21:41 – 00:22 hrs	23 at start; 22 at end	7/8 cloud at start; 2/8 cloud at end; dry throughout	Calm throughout	-
21st August 2017	20:22 – 23:02 hrs	17 at start; 16 at end	8/8 cloud throughout; light drizzle at start	Light air throughout	W

Weather conditions during the static detector surveys

Date	Mean Min. Temp (°C)	Mean Wind Speed (km/h)	Mean % Moon Illuminated	Mean Rain (mm)	Sunset (range)	Sunrise (range)
10 – 14th May 2017	6	10.8	96	0.92	20:53 – 21:00	05:12– 05:06
July 12th – July 16th 2017	11	12	73.2	0.76	21:32 – 21:27	04:54 – 04:59
19th – 23rd September 2017	6.4	10.4	3.8	0.12	19:11 – 19:01	06:49– 06:56

APPENDIX 5

Desk Study Data Provided by West Yorkshire Ecology Service (WYES)

West Yorkshire Ecology Service
West Yorkshire Joint Services
Nepsahw Lane South
Morley
Leeds
LS27 0QP | LS27 7JQ (Sat Nav)
Tel: 0113 535 0158
Email: ecology@wyjs.org.uk

ECOLOGICAL RECORDS SEARCH

FOR

ROWLEY LANE, LEPTON

Ref No:- 20190806 K1271 LM

Date: 07/08/2019

Prepared For Gary Oliver

SLR Consulting Ltd

Table of Contents

List of Figures

List of Appendices

1 Introduction

This report provides a summary of the protected and notable species, habitats and designated sites information held by West Yorkshire Ecology Service (WYES) within 2km of grid reference SE 19203 14575.

The information within this report is supplied subject to WYES's 'Terms and Conditions', which can be viewed on the WYES website (http://wyjs.org.uk/ecology-service/).

2 Species

Please see Appendix D for records held by WYES within your defined search area.

2.1 SENSITIVE SPECIES RECORDS

2.1.1 Badgers

There is known badger activity in this area.

Badgers are protected under the Protection of Badgers Act 1992 and offences can result from both reckless and deliberate damage, disturbance or destruction.

Please see the separate confidential badger records for more information.

BADGERS ARE STILL BEING PERSECUTED, PLEASE DO NOT PASS THESE RECORDS ONTO THIRD PARTIES (INCLUDING SUPPORTING DOCUMENTATION FOR PLANNING APPLICATIONS).

3 Designated sites

3.1 INTERNATIONALLY/NATIONALLY DESIGNATED SITES

There are no internationally/nationally designated sites within your search area.

3.2 LOCALLY DESIGNATED SITES

The following Non-Statutory sites were found within the search area, and are shown on Fig 1.

Name of Site	Designation
Almondbury Common	Local Wildlife Site
Carr Wood	Local Wildlife Site
Gawthorpe Lower Wood	Local Wildlife Site
Lepton Great Wood	Local Wildlife Site
Burton Dean Quarry	Local Geological Site

Lepton Great Wood	Local Geological Site

Explanations for designated sites are provided in Appendix B.

Citations for locally designated sites are provided in Appendix C.

There are no locally designated statutory sites within your search area.

4 Habitats

4.1 WILDLIFE HABITAT NETWORK

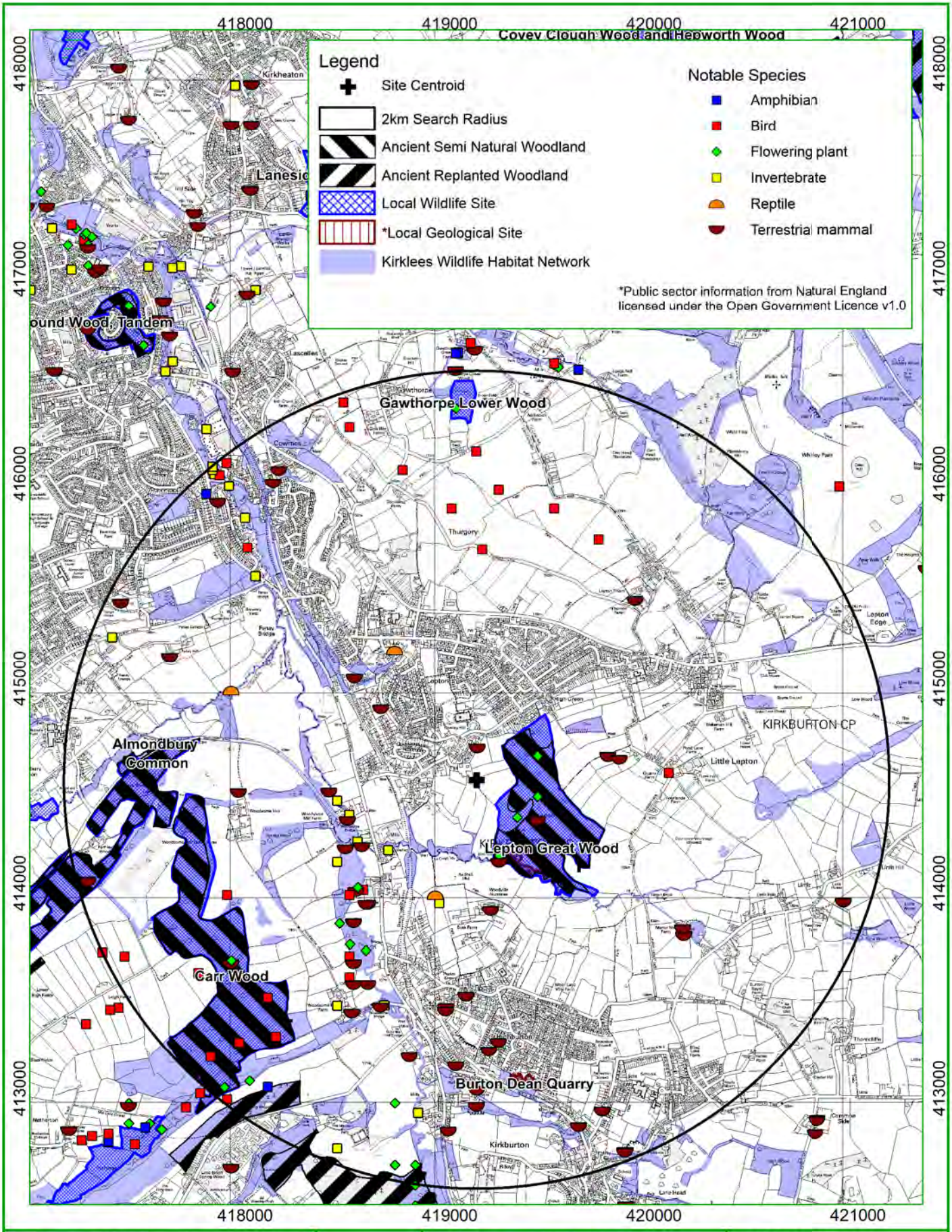
Your site centroid does not lie within the Kirklees Wildlife Habitat Network.
See Figure 1 for Kirklees Wildlife Habitat Network data.

4.2 ANCIENT WOODLAND

Your site centroid falls within 145m of Ancient Semi-natural Woodland and 1,700m of Ancient Replanted Woodland.

These relate to extracts from the West Yorkshire Ancient Woodland Inventory which is limited to woodlands over 2ha in size.

Figure 1 – Species and Designated Sites



metres
0 500 1000

N W E S

Scale 1:25000
At Size A4

West Yorkshire Ecology Service

FIGURE 1: SPECIES & DESGINATED SITES

West Yorkshire Joint Services, Nepshaw Lane South, Morley, Leeds, LS27 0QP Ph: 0113 535 0158 Email: ecology@wyjs.org.uk Licence No LA 076406, © WYES

Appendix A. Explanation of Species Designations

Wildlife and Countryside Act 1981 – main designations cited

Abbreviation	Full Name	Description	Offences include, but not limited to
Sch1_part1	Schedule 1, Part 1	Birds which are protected by special penalties at all times	• disturb any specially protected bird while it is building its nest; • disturb any specially protected bird while it is near a nest containing eggs or young; or • disturb the young of any of these birds before they are wholly independent.
Sch1_part2	Schedule 1, Part 2	Birds which are protected by special penalties during the close season	
Sch5	Schedule 5	Animals which are protected	• intentional or reckless killing, injuring, taking; • damage to, destruction of, obstruction of access to any structure or place used by a scheduled animal for shelter or protection; and • disturbance of animal occupying such a structure or place.
Sch5_sect9.1	Schedule 5, Section 9(1)	Animals which are protected from killing and/or taking	• intentional killing, injuring and/or taking NB: certain species are only partly protected by this section. Check primary legislation for details.
Sch5_sect9.5	Schedule 5, Section 9(5)	Animals which are protected from sale	• selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative); and • advertising for buying or selling such things
Sch8	Schedule 8	Plants which are fully protected	• pick, uproot, trade in, or possess (for the purposes of trade).
Sch8_sect 13.2 (sale only)	Schedule 8, Sections 13(2a+2b)	Plants which are protected from sale only	• selling, offering for sale, possessing or transporting for the purpose of sale, any plant (live or dead, part or derivative) + advertising for buying or selling such things
Sch9_part1	Schedule 9, Part 1	Animals which are established in the wild.	• the release of animals and planting of plants listed in Schedule 9. • the above offences can be made legal through the granting of licences by the appropriate authorities. NB: *Tyto alba* refers to captive bred only.
Sch9_part2	Schedule 9, Part 2	Plants which are established in the wild.	

Biodiversity Action Plans

Abbreviation	Full Name
UKBAP	UK Biodiversity Action Plan
WYBAP	West Yorkshire Priority Species List
Bradford BAP	Bradford Biodiversity Action Plan
Calderdale BAP	Calderdale Biodiversity Action Plan
Kirklees BAP	Kirklees Biodiversity Action Plan
Leeds BAP	Leeds Biodiversity Action Plan
Wakefield BAP	Wakefield Biodiversity Action Plan

Birds of Conservation Concern (BOCC) 2009

List	Description
Red	High conservation concern
Amber	Medium conservation concern

Red Data Book Categories (Based on ICUN Guidelines)

Abbreviation	Full Name
EX	Extinct
EW	Extinct in the Wild
CR	Critically Endangered
VU	Vulnerable
NT	Near Threatened
LC	Least Concern
DD	Data Deficient
NE	Not Evaluated

Nationally Notable Invertebrates:

Abbreviation	Full Name	Description
NR	Nationally Rare	found in 15 or fewer hectads
Notable or NS	Nationally Notable or Nationally Scarce	found in between 16 and 100 hectads
Notable A	Nationally Notable A	found in 16 to 30 hectads
Notable B	Nationally Notable B	found in between 31 and 100 hectads

References

Biodiversity Reporting and Information Group, (2007) *Report on the Species and Habitat Review*, UK Biodiversity Partnership. http://www.ukbap.org.uk/.

Bratton, J.H. (ed), (1991) *British Red Data Books: 3. Invertebrates other than insects*. JNCC, Peterborough.

BTO, et al (2009) *The Birds of Conservation Concern 3.* British Trust for Ornithology. http://www.bto.org/psob/index.htm.

Calderdale Biodiversity Action Plan Technical Group (2008) *Calderdale Local Biodiversity Plan: Review of Species and habitats*, Calderdale Biodiversity Action Plan Technical Group, Calderdale.

Cheffings, C. and Farrell, L. (Editors), (2005*) The Vascular Plant Red Data List for Great Britain*, ISSN 1473-0154.

City of Bradford MDC, (2003), *A Local Biodiversity Action Plan for the Bradford District (Draft)*, City of Bradford MDC, Bradford.

IUCN, (2004) *Guidelines for using the IUCN. Red List categories and criteria*. IUCN,. Gland and Cambridge

J. C. Lavin & G.T.D. Wilmore (1994) , The West Yorkshire Plant Atlas, City of Bradford Metropolitan Council, Bradford.

Kirklees Metropolitan Council (2008) *Kirklees Biodiversity Action Plan*, Kirklees Metropolitan Council, Kirklees.

Leeds BAP Steering Group, (2000) *Biodiversity Action Plan For Leeds*, Leeds City Council, Leeds.

Shirt, D. B. (Ed.), (1987) *British Red Data Books : 2 : Insects.* Peterborough: NCC.

Wakefield Biodiversity Group, (2001) *Wakefield District Local Biodiversity Report*, Wakefield MDC, Wakefield.

West Yorkshire Biodiversity Action Partnership (2009), *West Yorkshire Priority Species List*, West Yorkshire Ecology, Wakefield.

Appendix B. Explanation of Designated Sites

Internationally Designated Sites

Special Protection Areas (SPA)
SPA are European designated sites. They are identified by JNCC/Natural England as being of interest for their bird populations. They are of international importance and have statutory protection.

Special Areas of Conservation (SAC)
SAC are European designated sites. They are identified by JNCC/Natural England as being of interest for their habitat type and species. They are of international importance and have statutory protection.

Nationally Designated Sites

Sites of Special Scientific Interest (SSSI)
SSSI are first-tier sites for conservation. They are areas identified by Natural England as being of interest by reason of their flora, fauna, geological or physiological features. They are of national importance and have statutory protection.

Locally Designated Sites

Local Wildlife Sites (LWS)
This is the *new* term for locally designated sites being adopted across West Yorkshire. Districts are currently going through a process of merging *old* designated nature conservation sites (SEGI, SSI, Bradford Wildlife Areas (BWA), Leeds Nature Areas (LNA), Kirklees Sites of Wildlife Significance (SWS) and Wakefield Nature Areas (WNA)) into a single Local Wildlife Site (LWS) designation. Sites should be given the same protection as SEGIs/SSIs as set out in UDPs/LDFs. Please refer to the link below for the West Yorkshire Local Wildlife Site Selection Criteria.
https://www.wyjs.org.uk/media/69997/20190509-wy-local-sites-selection-criteria-09-may-2019-rm.docx

Sites of Scientific Interest (SSI)
SSI are an *old* system of designated sites which are gradually being reviewed and reassessed against new LWS selection criteria and where they qualify will be replaced by LWS designation.

Sites of Wildlife Significance (SWS)
Kirklees SWS are sites are an *old* system of designated sites, designated by the local authority on the basis of their wildlife and amenity value. Many of these sites have recently been resurveyed and are being assessed against new LWS criteria and where they qualify will be replaced by LWS designation.

***Further citations and species lists for specific sites can be supplied on request.**

Local Nature Reserves (LNR)
LNR's are statutory sites of district-wide importance for the enjoyment, study or conservation of wildlife, geological features and landforms, but there is seldom detailed ecological information on record for them. For more information on LNRs see https://designatedsites.naturalengland.org.uk/SiteSearch.aspx

Local Geological Sites (LGS)
LGS are areas identified as being important for their geological features. More details of this or other LGS sites can be obtained from the West Yorkshire Geology Trust (team@wyorksgeologytrust.org).

Wildlife Habitat Network

The Wildlife Habitat Network aims to meet the requirements of paragraph 114 of the National Planning Policy Framework for Conserving and enhancing the natural environment - Local planning authorities should: "set out a strategic approach in their Local Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure".

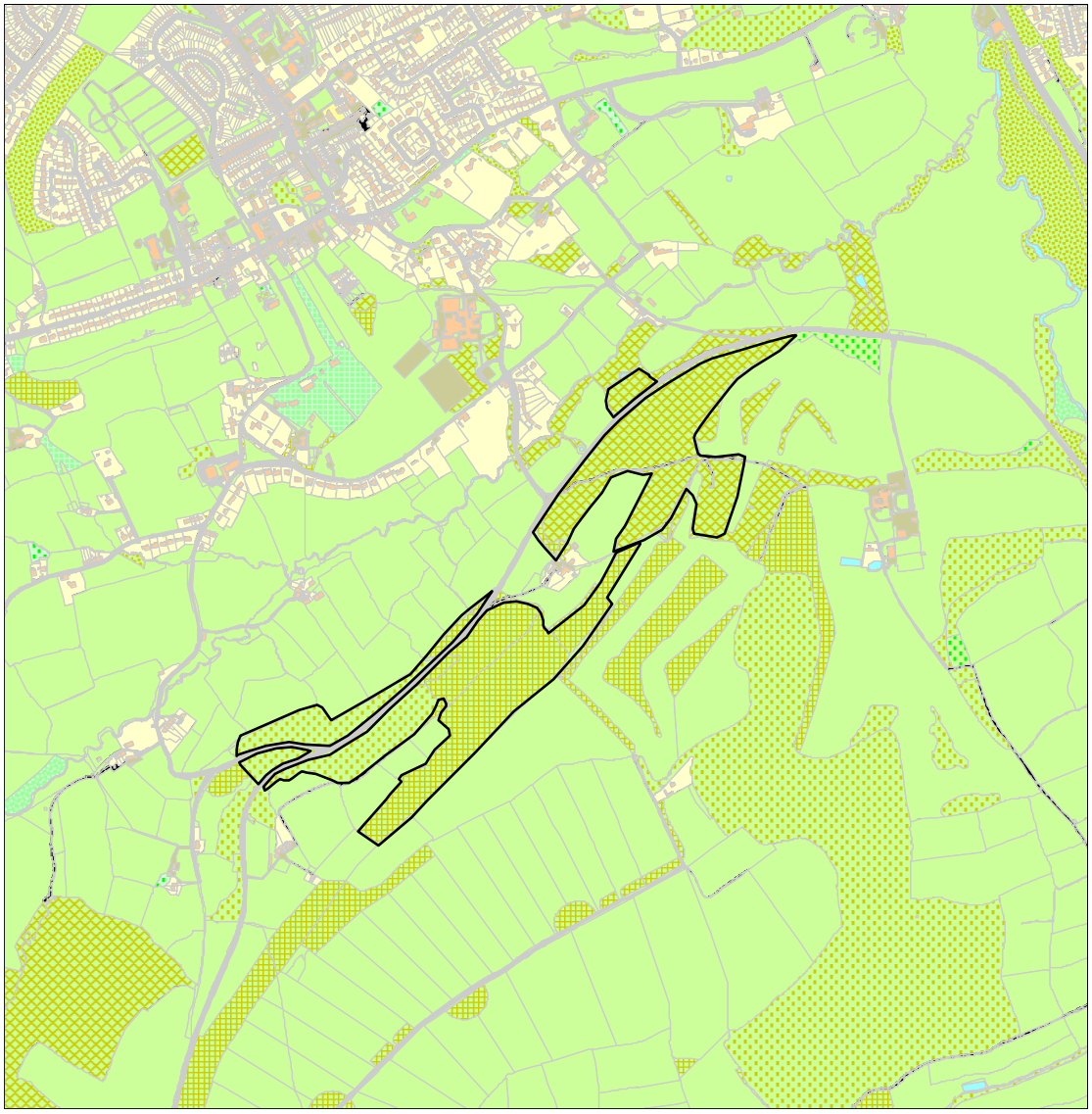
Kirklees
Wildlife Habitat Network data for Kirklees can be found on the link below:
http://consult.kirklees.gov.uk/portal/dlp_pol?pointId=s1442851813908

NE5 development proposals involving land identified on the proposals map as part of a wildlife corridor should make provision for the retention of the corridor and the protection of the wildlife value of the land.

Appendix C. Designated Site Citations

West Yorkshire Local Sites Partnership
Local Wildlife Site

Site name: Almondbury Common
Planning authority: Kirklees
Grid reference: SE179137
Date of review: 21/01/2014
Date approved by LS Partnership: 22/01/2014
Site boundary:



Qualifying criteria:

Wd1 – ancient and semi-natural woodland

Criteria version: 09/05/2012

This designation does not confer any rights of public access

Registry of Deeds, Newstead Road, Wakefield, WF1 2DE, ecology@wyjs.org.uk

Burton Dene Quarry, Kirkburton

STATUS: Local Geological Site
OTHER DESIGNATIONS:
COUNTY: West Yorkshire
DISTRICT: Kirklees
OS GRID REFERENCE SE 195 132
OS 1:50,000 Landranger 110 Sheffield and Huddersfield
OS 1:25,000 Explorer 288 Bradford and Huddersfield
BGS 1:50,000 Sheet 77 Huddersfield
FIRST DESIGNATED by West Yorkshire Geology Trust in 2012
DATE OF MOST RECENT SURVEY West Yorkshire Geology Trust in January 2013
DESIGNATION SHEET UPDATED October 2012

SITE DESCRIPTION:
There are two main quarry faces each about 5-8m high and 30-50m in total length. They are aligned east-west. The quarry floor is overgrown with trees in places and there are sections of quarry face which are difficult to reach. The sandstone is called the Kirkburton Rock, of Langsettian (Westphalian A), Upper Carboniferous age. The rock is very jointed and quarry faces may be unstable. The sandstone beds are about 10-30cm thick and pale yellow in colour, with very orange weathering surfaces in many places. The variable bed thickness results from very noticeable cross-bedding and some beds have scoured deeply into the beds below.

HISTORICAL ASSOCIATIONS:
Trade directories in Huddersfield Local History Library have considerable information about this quarry, which was more extensive than the present faces indicate. A map from 1850 records Burton Dean Quarry, also called Dyson's Quarry and a 1863-4 trade directory recorded George Dyson as quarry master at High Burton and in 1866 Edmund and George Dyson as stone masons/merchants in Kirkburton. The quarry clearly employed at least two stone masons in 1864, as they are recorded as working in Slantgate, a short lane which gives access to another part of the same quarry. In 1879, Edmund Dyson was recorded as a quarry owner in Slantgate. In 1881, George and Sam Armitage were recorded as stone-cutters and Joe Scott was mason and stone merchant both in High Burton, adjacent to this quarry face. The date of closure of the quarry is not known.

EDUCATIONAL VALUE:
The quarry has good access on the footpath and would be suitable for visits by school parties, though it would be best to keep away from the main quarry faces.

AESTHETIC CHARACTERISTICS:

ACCESS:
There is good access from the footpath which leaves the B6116 close to the quarry and is a signposted footpath to Highburton. Parking is available on the B6116 close to the footpath and the quarry is to the north of the footpath in woodland.

OWNERSHIP:
Kirklees Council

SCIENTIFIC IMPORTANCE:
This is the type section for the Kirkburton Rock and is described in detail in the BGS Special Report WA/00/02.

REASONS FOR DESIGNATION:
1. Educational value for lifelong learning, 2. Scientific value as this is the type section for the Kirkburton Rock

REFERENCES:
C. E. N. Bromehead, W. Edwards, D. A. Wray and J. V. Stephens, 1933 *The geology of the country around Holmfirth and Glossop* Memoir of the Geological Survey
Addison, R., Waters, C.N., and Chisholm, J.I. 2005 *Geology of the Huddersfield District* Sheet description of the British Geological Survey, 1:50,000 Series Sheet 77 Huddersfield p10
British Geological Survey Technical Report WA/00/02 Geology of the Kirkburton Area
Huddersfield Geology Group 1998 *Rocks and Landscapes of Huddersfield*

Burton Dean Quarry LGS

January 2019

W YORKSHIRE GEOLOGY TRUST

0 100 m

West Yorkshire Local Wildlife Sites

Site Name/ Code: Carr Wood	Location: west of Kirkburton, Kirklees
Date of Survey: 15/05/2015	Surveyor: A. Jukes
Grid Reference: SE180137	Site Area (Ha): 39.83 ha
Natural Area: Coal Measures	Public Access: public footpath to south
NVC Communities: W10	

Site Description

Carr Wood is located to the west of Kirkburton. Surrounding land use is mainly improved and semi-improved neutral grassland, with a golf course to the north. The woodland has stone walls on most of the boundaries, with parallel dry or wet ditches in places. There is a public footpath to the south of the woodland and tracks for private use throughout the wood with structures and fencing associated with rearing game birds to the north of the site.

The woodland is closest to W10 acid woodland. The canopy has abundant Quercus spp. (Q. robur and Q. petraea) and occasional Betula pendula and Betula pubescens. Patches have been planted with Fagus sylvatica and Larix sp. The understorey has locally abundant Ilex aquifolium, frequent Quercus spp., and occasional Fagus sylvatica and Corylus avellana. Holcus mollis, Hyancinthoides non-scripta and Pteridium aquilinum are frequent in the ground flora, with occasional Rubus fruticosus agg., Dryopteris dilatata, Carex remota and Teucrium scorodonia. Rarely occurring species include Lonicera periclymenum, Dryopteris affinis, Milium effusum, Veronica montana, Lysimachia nemorum, Luzula pilosa, Oxalis acetosella, Allium ursinum and Mercurialis perennis. Callitriche stagnalis is present on muddy tracks.

A wet ditch to the south of the site has frequent Carex remota, occasional Scrophularia nodosa and Juncus effusus and rarely occurring Glyceria sp. and Cirsium palustre.

A stream on the southern boundary of the site has occasional Chrysosplenium oppositifolium, Mercurialis perennis and Hyacinthoides non-scripta with rarely occurring Phyllitis scolopendrium.

Invertebrates recorded were Small White, Peacock and Small Tortoishell. Grey squirrel was seen.

Ecological Evaluation

The woodland has patches replanted with Fagus sylvatica and Larix sp. and areas of Quercus spp. in the canopy also appear to have been planted as they are relatively evenly spaced and similar ages. Therefore, the woodland is not considered to meet Criteria Wd1 as the majority of it appears to be replanted, not semi-natural, ancient woodland. The ground flora is species-rich with a good range of acid woodland species in addition to a few neutral/calcareous species in places. It meets Criteria Wd3, scoring 11 points for acid woodland plant species diversity with the threshold being 8. It also meets Criteria Wd5, with patches of dense native Bluebells covering more than 10% of the woodland area, with cover estimated to be around 20%.

West Yorkshire Local Wildlife Site

Site Name/ Code: Gawthorpe Lower Wood	**Location:** Kirklees
Date of Survey: 15/05/2013	**Surveyor:** R. Masheder, West Yorkshire Ecology
Grid Reference: SE 191164	**Site Area (Ha):** 1.96
Natural Area: Coal Measures	**Public Access:** no
NVC Communities: W10	

Site Description

This woodland is a typical example of a sessile oak woodland in this area. It has suffered from historical disturbance many years ago from small scale mining operations. The woodland appears to have been felled approximately 50 years ago leaving the canopy with a lack of mature trees, but it is now regenerating. The canopy has abundant silver birch, sycamore and sessile oak with additional diversity provided by ash and wych elm along the beck/drain which runs down the eastern side. The shrub layer contains frequent holly as well as occasional hazel and hawthorn and rare rowan and elder.

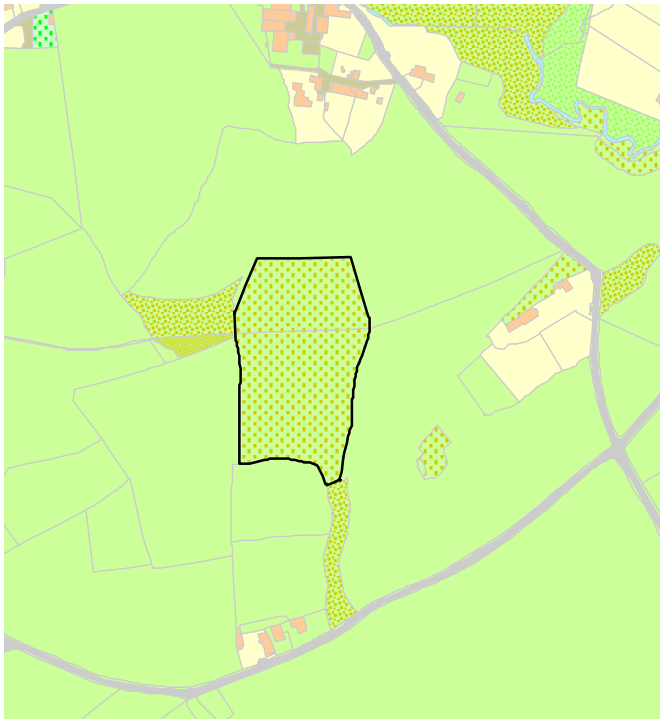
The ground flora is dominated by creeping soft-grass with significant areas of native bluebell which cover about 20% of the site at a frequency of more than 40%. The centre of the site has abundant bracken and frequent bramble and male fern. Diversity improves on the eastern side with frequent ramson and dog's mercury as well as occasional yellow archangel, wood anemone, lords and ladies and lesser celandine.

Ecological Evaluation

The woodland contains a good cover of bluebell and meets Criteria Wd5. Diversity is moderate.

West Yorkshire Local Sites Partnership
Local Wildlife Site Proposal

Site name: Gawthorpe Lower Wood
Planning authority: Kirklees
Grid reference: SE191164
Date of review: 03/10/2014
Date approved by LS Partnership: 09/10/2014
Site boundary:



Qualifying criteria:

Wd5 - High bluebell cover

Criteria version: 10/05/2013

This designation does not confer any rights of public access

Registry of Deeds, Newstead Road, Wakefield, WF1 2DE, ecology@wyjs.org.uk

West Yorkshire Local Wildlife Site

Site Name/ Code: Lepton Great Wood	**Location:** Lepton, Kirklees
Date of Survey: 30/04/2015	**Surveyor:** A. Jukes, West Yorkshire Ecology
Grid Reference: SE195144	**Site Area (Ha):** 25.1
Natural Area: Coal Measures	**Public Access:** public footpaths
NVC Communities: W10, W16	

Site Description

Lepton Great Wood is an ancient woodland site to the south east of Lepton. Surrounding land use is mainly improved and semi-improved neutral grassland with houses and gardens to the north. There are some areas of hummocky ground and a disused shaft in the central part of the woodland. A public footpath runs through the site and there are many well-used tracks throughout the wood. There are stone walls along most of the boundaries and fences to the south, with Beldon Brook and Lepton Great Wood Local Geological Site on the southern edge of the site.

The north and south of the woodland are most similar to W10, with abundant Quercus spp. and occasional Acer pseudoplatanus, Betula spp. and Fagus sylvatica in the canopy. The understorey has occasional Ilex aquifolium, Quercus spp., Corylus avellana, Acer pseudoplatanus, Fagus sylvatica and Sorbus aucuparia. The ground flora has locally abundant Allium ursinum and Hyacinthoides non-scripta, frequent Holcus mollis and Rubus fruticosus agg. and occasional species include Anemone nemorosa, Deschampsia cespitosa, Deschampsia flexuosa, Dryopteris dilatata, Geum urbanum, Lamiastrum galeobdolon ssp. argentatum, Lonicera periclymenum and Ranunculus ficaria.

Small areas of wet woodland ground flora along the stream to the south have abundant Ranunculus repens, frequent Ranunculus ficaria, Deschampsia cespitosa and Veronica beccabunga and occasional Carex remota, Anemone nemorosa, Allium ursinum, Hyacinthoides non-scripta and Filipendula ulmaria. The banks of the stream have abundant Allium ursinum, occasional Ranunculus repens and rarely occurring Cardamine flexuosa and Chrysosplenium oppositifolium.

The central part of the woodland has similarities with W16 and W10, with abundant Betula spp. and occasional Quercus spp. and Fagus sylvatica in the canopy and locally abundant Holcus mollis and Rubus fruticosus agg. with occasional Deschampsia flexuosa, Hypnum cupressiforme and Hyacinthoides non-scripta in the ground flora.

Bird species recorded were Woodpigeon, Blackbird, Robin, Blue Tit, Great Tit, Nuthatch and Wren. Grey squirrels were present and possible Water Vole burrows were seen along the stream to the south.

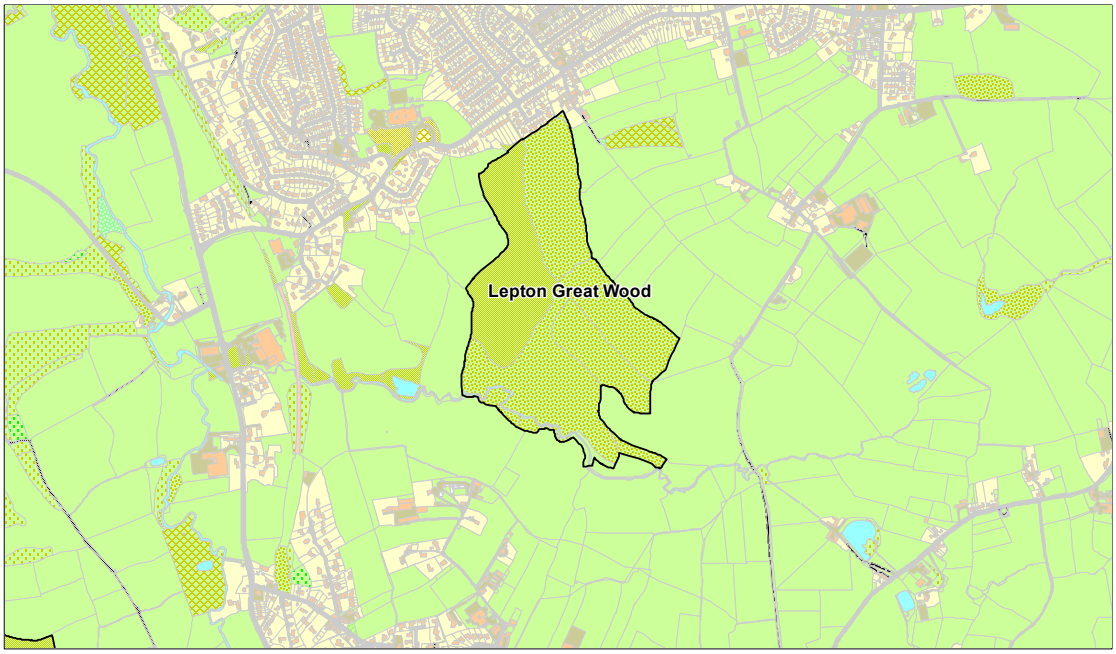
Ecological Evaluation

Most of the woodland is on an ancient woodland site, except for small areas to the north east and west. It looks mainly semi-natural to the south (W10 and part of W16/W10), although some areas appear to be more recent regeneration (part of W16/W10) and some areas to the north and west appear planted with higher proportions of Acer pseudoplatanus and Fagus sylvatica. The

approximate area that looks semi-natural is 10ha, therefore this qualifies under Criteria Wd1 for ancient semi-natural woodland over 0.5ha. The woodland meets Criteria Wd3 for acid woodland species diversity, scoring 12 with the threshold being 8. The W10 areas are most species-rich, while the W16/W10 area in the centre only scores 2. The W10 areas also have patches of dense Bluebell cover, totalling about 20% of woodland, with Bluebells scattered throughout most of the rest of the woodland. Therefore, this meets Criteria Wd5 as the threshold is at least 10% dense cover.

West Yorkshire Local Sites Partnership
Local Wildlife Site

Site name: Lepton Great Wood
Planning authority: Kirklees
Grid reference: SE195144
Date of review: 30/04/2015
Date approved by LS Partnership: 21/01/2016
Site boundary:



Qualifying criteria:

Wd1 - ancient semi-natural woodland
Wd3 - species rich acid woodland
Wd5 - native bluebell cover

Criteria version: 21/01/16

This designation does not confer any rights of public access

Registry of Deeds, Newstead Road, Wakefield, WF1 2DE, ecology@wyjs.org.uk

Lepton Great Wood

STATUS: Local Geological Site
OTHER DESIGNATIONS: Local Wildlife Site
COUNTY: West Yorkshire
DISTRICT: Kirklees
OS GRID REFERENCE SE 195 141
OS 1:50,000 Landranger 110 Sheffield and Huddersfield
OS 1:25,000 Explorer 288 Bradford and Huddersfield
BGS 1:50,000 Sheet 86 Glossop
FIRST DESIGNATED by West Yorkshire Geology Trust in 2012
DATE OF MOST RECENT SURVEY West Yorkshire Geology Trust in June 2012
DESIGNATION SHEET UPDATED October 2012

SITE DESCRIPTION:
The rocks found here are sandstones, siltstones and mudstones of Langsettian (Westphalian A), Upper Carboniferous age. The Thick Stone is the main sandstone and forms a south-facing 5m high rock face approximately 20m long, next to Beldon Brook. Sandstone beds, undercut by the stream in places, are found 200m downstream in the stream bed. 10m downstream of these sandstones is a river bank exposure of mudstones which have been acutely folded. The rocks have a general dip 5^{o} to the north.
The sandstones are very fine-grained, pale grey to yellow colour in 0.5m beds, interbedded with similar siltstone beds. There are very fine laminations within both the sandstones and siltstones. The mudstones which lie below the sandstones are dark grey and laminated. Both sandstones and siltstones have small scale ripple bedding. The mudstones seen upstream in the river bank have been steeply folded asymmetrically, possibly because of a fault which is shown on the 1999 BGS field slip.

HISTORICAL ASSOCIATIONS:
About 200m further downstream there is a mine drainage outflow with orange acid mine water. A mine shaft, which is part of the old Victoria Colliery in Lepton Great Wood, can be found by walking up hill to the north, through spoil tips and an old footpath, bounded by banks. The shaft is brick-lined.

EDUCATIONAL VALUE:
This site is not suitable for school parties as there is limited access to the stream banks and there are some steep slopes next to the stream in places.

AESTHETIC CHARACTERISTICS:

ACCESS:
Lepton Great Wood lies south of Lepton off Rowley Lane. It can be reached by footpaths from Moor Lane, Highburton and from Rowley Lane, Lepton, via the footpath near Birch Avenue. From Rowley Lane, follow the main footpath through the woods for about 600m, then take the footpath to the right, 100m after a small stream. Follow the path downhill to Beldon Brook. The cliff faces are stable, but access to each face is very steep.

OWNERSHIP:
Elliotts Estate, 25 Fenay Bridge Rd, Fenay Bridge, Huddersfield, HD8 0AY 01484 428758. For the attention of Elizabeth Elliott

SCIENTIFIC IMPORTANCE:

This is a good exposure for the Thick Stone and is described in detail in the BGS Special Report WA/00/02.

REASONS FOR DESIGNATION:
1. Educational value for lifelong learning 2. Scientific value as this is a good exposure of Thick Stone, which is not exposed elsewhere in an accessible position.

REFERENCES:
C. E. N. Bromehead, W. Edwards, D. A. Wray and J. V. Stephens, 1933 *The geology of the country around Holmfirth and Glossop* Memoir of the Geological Survey
Addison, R., Waters, C.N., and Chisholm, J.I. 2005 *Geology of the Huddersfield District* Sheet description of the British Geological Survey, 1:50,000 Series Sheet 77 Huddersfield p10
British Geological Survey Technical Report WA/00/02 Geology of the Kirkburton Area
Huddersfield Geology Group 1998 *Rocks and Landscapes of Huddersfield*

Appendix D. Species Records

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE179160	Common Frog	*Rana temporaria*	amphibian	27/06/2005	field record	1 Count of Adult; 1000 Count of Juvenile	Sch5_sect9.5b; WYBAP	1,928
SE182131	Common Frog	*Rana temporaria*	amphibian	19/07/2013	field observation	2 Count	Sch5_sect9.5b; WYBAP	1,782
SE1739013720	Skylark	*Alauda arvensis*	bird	15/04/2000 - 15/06/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	2,000
SE1860016290	Skylark	*Alauda arvensis*	bird	14/03/2000 - 17/07/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,817
SE1910015890	Skylark	*Alauda arvensis*	bird	14/03/2000 - 17/07/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,318
SE1925015690	Skylark	*Alauda arvensis*	bird	14/03/2000 - 17/07/2000	field record	3 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,115
SE1960015890	Skylark	*Alauda arvensis*	bird	14/03/2000 - 17/07/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,373

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE1982015740	Skylark	*Alauda arvensis*	bird	14/03/2000 - 17/07/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,317
SE1796416054	Kingfisher	*Alcedo atthis*	bird	27/06/2005	field record		Sch1_part1; BoCC:Amber	1,927
SE181157	Kingfisher	*Alcedo atthis*	bird	25/08/2001	field record	2 Count of Adult	Sch1_part1; BoCC:Amber	1,573
SE1813	Kingfisher	*Alcedo atthis*	bird	1970 - 1988	field record		Sch1_part1; BoCC:Amber	1,979
SE186136	Kingfisher	*Alcedo atthis*	bird	15/09/2001	nest		Sch1_part1; BoCC:Amber	1,145
SE186136	Kingfisher	*Alcedo atthis*	bird	15/09/2001	field record	1 Count of Adult	Sch1_part1; BoCC:Amber	1,145
SE1799816113	Mallard	*Anas platyrhynchos*	bird	09/02/2004	field record	1 Count	BoCC:Amber	1,951
SE1813	Mallard	*Anas platyrhynchos*	bird	1970 - 1988	field record		BoCC:Amber	1,979
SE1813	Tree Pipit	*Anthus trivialis*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,979
SE1814	Tree Pipit	*Anthus trivialis*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,330
SE1813	Swift	*Apus apus*	bird	1970 - 1988	field record		BoCC:Amber; WYBAP	1,979
SE1857016410	Linnet	*Carduelis cannabina*	bird	14/03/2000 - 17/07/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,940

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE1922016170	Linnet	*Carduelis cannabina*	bird	14/03/2000 - 17/07/2000	field record	2 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,594
SE1925015690	Linnet	*Carduelis cannabina*	bird	14/03/2000 - 17/07/2000	field record	2 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,115
SE1796416054	Goldfinch	*Carduelis carduelis*	bird	27/06/2005	field record		Kirklees BAP	1,927
SE1813	Goldfinch	*Carduelis carduelis*	bird	1970 - 1988	field record		Kirklees BAP	1,979
SE1814	Goldfinch	*Carduelis carduelis*	bird	1970 - 1988	field record		Kirklees BAP	1,330
SE1813	Stock Dove	*Columba oenas*	bird	1970 - 1988	field record		BoCC:Amber	1,979
SE1814	Stock Dove	*Columba oenas*	bird	1970 - 1988	field record		BoCC:Amber	1,330
SE175137	Common Cuckoo	*Cuculus canorus*	bird	21/05/2016	field record	2 Count	BoCC:Red; UKBAP; WYBAP	1,910
SE1813	Cuckoo	*Cuculus canorus*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP	1,979
SE1814	Cuckoo	*Cuculus canorus*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP	1,330
SE1813	House Martin	*Delichon urbica*	bird	1970 - 1988	field record		BoCC:Amber; WYBAP	1,979
SE1814	Lesser Spotted Woodpecker	*Dendrocopos minor*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP	1,330

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE1786013620	Yellowhammer	*Emberiza citrinella*	bird	15/04/2000 - 15/06/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP	1,645
SE1813	Yellowhammer	*Emberiza citrinella*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP	1,979
SE1814	Yellowhammer	*Emberiza citrinella*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP	1,330
SE1925015690	Yellowhammer	*Emberiza citrinella*	bird	14/03/2000 - 17/07/2000	field record	2 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP	1,115
SE1813	Reed Bunting	*Emberiza schoeniclus*	bird	1970 - 1988	field record		BoCC:Amber; UKBAP; WYBAP; Kirklees BAP	1,979
SE1813	Kestrel	*Falco tinnunculus*	bird	1970 - 1988	field record		BoCC:Amber; WYBAP; Kirklees BAP	1,979
SE1814	Kestrel	*Falco tinnunculus*	bird	1970 - 1988	field record		BoCC:Amber; WYBAP; Kirklees BAP	1,330
SE1813	Brambling	*Fringilla montifringilla*	bird	1970 - 1988	field record		Sch1_part1	1,979
SE1814	Brambling	*Fringilla montifringilla*	bird	1970 - 1988	field record		Sch1_part1	1,330
SE1813	Snipe	*Gallinago gallinago*	bird	1970 - 1988	field record		BoCC:Amber; Kirklees BAP	1,979
SE1813	Swallow	*Hirundo rustica*	bird	1970 - 1988	field record		BoCC:Amber; WYBAP; Kirklees BAP	1,979

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE1814	Swallow	*Hirundo rustica*	bird	1970 - 1988	field record		BoCC:Amber; WYBAP; Kirklees BAP	1,330
SE1866814024	Swallow	*Hirundo rustica*	bird	05/08/2015	nest		BoCC:Amber; WYBAP; Kirklees BAP	767
SE2016114599	Swallow	*Hirundo rustica*	bird	21/09/2011	nest	1 Count	BoCC:Amber; WYBAP; Kirklees BAP	956
SE1813	Grasshopper Warbler	*Locustella naevia*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,979
SE1796416054	Grey Wagtail	*Motacilla cinerea*	bird	27/06/2005	field record		BoCC:Amber	1,927
SE1813	Grey Wagtail	*Motacilla cinerea*	bird	1970 - 1988	field record		BoCC:Amber	1,979
SE1813	Spotted Flycatcher	*Muscicapa striata*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,979
SE1814	Spotted Flycatcher	*Muscicapa striata*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,330
SE1813	Willow Tit	*Parus montanus*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,979
SE1796416054	House Sparrow	*Passer domesticus*	bird	27/06/2005	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,927

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE1813	House Sparrow	*Passer domesticus*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,979
SE186140	House Sparrow	*Passer domesticus*	bird	05/08/2015	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	832
SE1813	Tree Sparrow	*Passer montanus*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,979
SE1814	Tree Sparrow	*Passer montanus*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,330
SE1886016080	Tree Sparrow	*Passer montanus*	bird	14/03/2000 - 17/07/2000	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,543
SE1813	Willow Warbler	*Phylloscopus trochilus*	bird	1970 - 1988	field record		BoCC:Amber	1,979
SE1814	Willow Warbler	*Phylloscopus trochilus*	bird	1970 - 1988	field record		BoCC:Amber	1,330
SE1813	Green Woodpecker	*Picus viridis*	bird	1970 - 1988	field record		BoCC:Amber	1,979
SE1814	Green Woodpecker	*Picus viridis*	bird	1970 - 1988	field record		BoCC:Amber	1,330
SE1796416054	Dunnock	*Prunella modularis*	bird	27/06/2005	field record		BoCC:Amber; UKBAP; WYBAP; Kirklees BAP	1,927

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE1799816113	Dunnock	*Prunella modularis*	bird	09/02/2004	field record	1 Count	BoCC:Amber; UKBAP; WYBAP; Kirklees BAP	1,951
SE1813	Dunnock	*Prunella modularis*	bird	1970 - 1988	field record		BoCC:Amber; UKBAP; WYBAP; Kirklees BAP	1,979
SE1814	Dunnock	*Prunella modularis*	bird	1970 - 1988	field record		BoCC:Amber; UKBAP; WYBAP; Kirklees BAP	1,330
SE1813	Bullfinch	*Pyrrhula pyrrhula*	bird	1970 - 1988	field record		BoCC:Amber; UKBAP; WYBAP; Kirklees BAP	1,979
SE1814	Bullfinch	*Pyrrhula pyrrhula*	bird	1970 - 1988	field record		BoCC:Amber; UKBAP; WYBAP; Kirklees BAP	1,330
SE1813	Woodcock	*Scolopax rusticola*	bird	1970 - 1988	field record		BoCC:Amber; Kirklees BAP	1,979
SE1813	Starling	*Sturnus vulgaris*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,979
SE1814	Starling	*Sturnus vulgaris*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,330
SE1813	Whitethroat	*Sylvia communis*	bird	1970 - 1988	field record		BoCC:Amber	1,979

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE1982015740	Whitethroat	*Sylvia communis*	bird	14/03/2000 - 17/07/2000	field record	1 Count of Breeding Pair	BoCC:Amber	1,317
SE1813	Redwing	*Turdus iliacus*	bird	1970 - 1988	field record		Sch1_part1; BoCC:Red	1,979
SE1814	Redwing	*Turdus iliacus*	bird	1970 - 1988	field record		Sch1_part1; BoCC:Red	1,330
SE1792013210	Song Thrush	*Turdus philomelos*	bird	15/04/2000 - 15/06/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,870
SE1806013280	Song Thrush	*Turdus philomelos*	bird	15/04/2000 - 15/06/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,725
SE1813	Song Thrush	*Turdus philomelos*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,979
SE1814	Song Thrush	*Turdus philomelos*	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,330
SE1820013500	Song Thrush	*Turdus philomelos*	bird	15/04/2000 - 15/06/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,468
SE1824013310	Song Thrush	*Turdus philomelos*	bird	15/04/2000 - 15/06/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,588

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE186137	Song Thrush	*Turdus philomelos*	bird	03/07/2013	field observation		BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,061
SE1813	Fieldfare	*Turdus pilaris*	bird	1970 - 1988	field record		Sch1_part1; BoCC:Red	1,979
SE1814	Fieldfare	*Turdus pilaris*	bird	1970 - 1988	field record		Sch1_part1; BoCC:Red	1,330
SE1813	Mistle Thrush	*Turdus viscivorus*	bird	1970 - 1988	field record		BoCC:Red	1,979
SE1814	Mistle Thrush	*Turdus viscivorus*	bird	1970 - 1988	field record		BoCC:Red	1,330
SE1910015890	Lapwing	*Vanellus vanellus*	bird	14/03/2000 - 17/07/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,318
SE1925015690	Lapwing	*Vanellus vanellus*	bird	14/03/2000 - 17/07/2000	field record	2 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,115
SE1933015980	Lapwing	*Vanellus vanellus*	bird	14/03/2000 - 17/07/2000	field record	1 Count of Breeding Pair	BoCC:Red; UKBAP; WYBAP; Kirklees BAP	1,410
SE186143	Freshwater Crayfish	*Austropotamobius pallipes*	crustacean	1997	field record		Sch5_sect9.1 (part) & 9.5; UKBAP; WYBAP	661
SE179161	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	24/08/2014	field observation		Sch9_part1	2,003
SE1797116039	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	20/08/2008	field record		Sch9_part1	1,911

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE1804915884	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	20/08/2008	field record		Sch9_part1	1,743
SE181156	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	25/08/2001	field record	2 Count of Adult	Sch9_part1	1,503
SE185142	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	06/04/2014	field observation		Sch9_part1	795
SE1856014430	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	20/08/2008	field record		Sch9_part1	657
SE186143	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	1997	field record		Sch9_part1	661
SE186143	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	1997	field record		Sch9_part1	661
SE186143	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	1997	field record		Sch9_part1	661
SE186143	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	1997	field record		Sch9_part1	661
SE186143	Pacifastacus leniusculus	*Pacifastacus leniusculus*	crustacean	1997	field record		Sch9_part1	661
SE186143	Pacifastacus leniusculus	*Pacifastacus leniusculus*	crustacean	1997	field record		Sch9_part1	661
SE186143	Pacifastacus leniusculus	*Pacifastacus leniusculus*	crustacean	1997	field record		Sch9_part1	661
SE186143	Pacifastacus leniusculus	*Pacifastacus leniusculus*	crustacean	1997	field record		Sch9_part1	661
SE1873113501	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	28/08/2008	field record		Sch9_part1	1,172
SE1875014258	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	28/08/2008	field record		Sch9_part1	552
SE1889712973	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	28/08/2008	field record		Sch9_part1	1,630
SE1914	Signal Crayfish	*Pacifastacus leniusculus*	crustacean	12/07/2017	field record	12 Count	Sch9_part1	609

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE188127	Common Centaury	*Centaurium erythraea*	flowering plant	Unknown	field record		Kirklees BAP	1,917
SE18661375	Canadian Waterweed	*Elodea canadensis*	flowering plant	03/07/2013	field observation	A Count of DAFOR	Sch9_part2	987
SE1796713079	Bluebell	*Hyacinthoides non-scripta*	flowering plant	15/05/2015	field observation	O Count of DAFOR	Sch8_sect 13.2; Kirklees BAP	1,938
SE180137	Bluebell	*Hyacinthoides non-scripta*	flowering plant	15/05/2015	field observation	F Count of DAFOR	Sch8_sect 13.2; Kirklees BAP	1,485
SE18091311	Bluebell	*Hyacinthoides non-scripta*	flowering plant	19/07/2013	field observation	R Count of DAFOR	Sch8_sect 13.2; Kirklees BAP	1,837
SE18531388	Bluebell	*Hyacinthoides non-scripta*	flowering plant	03/07/2013	field observation	O Count of DAFOR	Sch8_sect 13.2; Kirklees BAP	966
SE18581378	Bluebell	*Hyacinthoides non-scripta*	flowering plant	03/07/2013	field observation	R Count of DAFOR	Sch8_sect 13.2; Kirklees BAP	1,009
SE188130	Bluebell	*Hyacinthoides non-scripta*	flowering plant	2008	field record		Sch8_sect 13.2; Kirklees BAP	1,625
SE191164	Bluebell	*Hyacinthoides non-scripta*	flowering plant	15/05/2013	field record	o to a Count of DAFOR	Sch8_sect 13.2; Kirklees BAP	1,827
SE1931014210	Bluebell	*Hyacinthoides non-scripta*	flowering plant	30/04/2015	field observation	O Count of DAFOR	Sch8_sect 13.2; Kirklees BAP	380
SE194144	Bluebell	*Hyacinthoides non-scripta*	flowering plant	30/04/2015	field observation	O Count of DAFOR	Sch8_sect 13.2; Kirklees BAP	263
SE195145	Bluebell	*Hyacinthoides non-scripta*	flowering plant	23/05/1996	field record	F Range of DAFOR	Sch8_sect 13.2; Kirklees BAP	305
SE195147	Bluebell	*Hyacinthoides non-scripta*	flowering plant	30/04/2015	field observation	LA Count of DAFOR	Sch8_sect 13.2; Kirklees BAP	321
SE1861914057	Indian Balsam	*Impatiens glandulifera*	flowering plant	05/08/2015	field observation		Sch9_part2	779
SE189126	Indian Balsam	*Impatiens glandulifera*	flowering plant	31/10/2016	field record		Sch9_part2	1,997
SE189127	Indian Balsam	*Impatiens glandulifera*	flowering plant	31/10/2016	field record		Sch9_part2	1,898

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE195147	Yellow Archangel	*Lamiastrum galeobdolon subsp. argentatum*	flowering plant	30/04/2015	field observation	O Count of DAFOR	Sch9_part2	321
SE180137	Rhododendron	*Rhododendron ponticum*	flowering plant	15/05/2015	field observation	R Count of DAFOR	Sch9_part2	1,485
SE185128	Abdera flexuosa	*Abdera flexuosa*	insect - beetle (Coleoptera)	Unknown	field record		Sch9_part1; Notable:B	1,908
SE185128	Agabus biguttatus	*Agabus biguttatus*	insect - beetle (Coleoptera)	Unknown	field record		Sch1_part1; Notable:B	1,908
SE185128	Aphodius paykulli	*Aphodius paykulli*	insect - beetle (Coleoptera)	Unknown	field record		Notable:B	1,908
SE185128	Atomaria diluta	*Atomaria diluta*	insect - beetle (Coleoptera)	Unknown	field record		RDB:Pre94:Insu	1,908
SE185145	Ctesias serra	*Ctesias serra*	insect - beetle (Coleoptera)	Unknown	field record		Notable:B	705
SE185128	Bast bark beetle	*Ernoporus tiliae*	insect - beetle (Coleoptera)	Unknown	field record		RDB:Pre94:EN	1,908
SE185135	Hydraena nigrita	*Hydraena nigrita*	insect - beetle (Coleoptera)	Unknown	field record		Notable:B	1,283
SE185135	Hydraena pygmaea	*Hydraena pygmaea*	insect - beetle (Coleoptera)	Unknown	field record		RDB:Pre94:NR	1,283

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE185128	Mantura rustica	*Mantura rustica*	insect - beetle (Coleoptera)	Unknown	field record		Notable:B	1,908
SE174153	Trechus subnotatus	*Trechus subnotatus*	insect - beetle (Coleoptera)	Unknown	field record		RDB:Pre94:EN	1,939
SE185128	Tropiphorus terricola	*Tropiphorus terricola*	insect - beetle (Coleoptera)	Unknown	field record		Notable:B	1,908
SE188152	Viviparous Lizard	*Lacerta vivipara*	reptile	1914	field record		Sch5_sect9.1 (part) & 9.5; UKBAP; WYBAP; Kirklees BAP	743
SE1914	Viviparous Lizard	*Lacerta vivipara*	reptile	1914	field record		Sch5_sect9.1 (part) & 9.5; UKBAP; WYBAP; Kirklees BAP	609
SE1815	Grass Snake	*Natrix natrix*	reptile	1914	field record		Sch5_sect9.1 (part) & 9.5; UKBAP; WYBAP; Kirklees BAP	1,273
SE18731349	Water Vole	*Arvicola terrestris*	terrestrial mammal	16/09/2001	Spraint	1 Count of Droppings	Sch5; UKBAP; WYBAP; Kirklees BAP	1,183
SE1931114194	Water Vole	*Arvicola terrestris*	terrestrial mammal	30/04/2015	burrow, nesthole		Sch5; UKBAP; WYBAP; Kirklees BAP	396

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE173141	Brown Hare	*Lepus europaeus*	terrestrial mammal	05/04/2015	field observation		UKBAP; WYBAP; Kirklees BAP	1,956
SE2114	Brown Hare	*Lepus europaeus*	terrestrial mammal	22/05/1986	field record	2 Count of Adult	UKBAP; WYBAP; Kirklees BAP	1,882
SE1861214053	Otter	*Lutra lutra*	terrestrial mammal	05/08/2015	Spraint		Sch5; UKBAP; WYBAP; Kirklees BAP	787
SE18671360	Otter	*Lutra lutra*	terrestrial mammal	28/03/2006	Spraint	1 Count of Tracks; 1 Count of Spraint	Sch5; UKBAP; WYBAP; Kirklees BAP	1,110
SE18481454	American Mink	*Mustela vison*	terrestrial mammal	25/08/2001	tracks/trail	1 Count of Tracks	Sch9_part1	722
SE18561426	American Mink	*Mustela vison*	terrestrial mammal	15/09/2001	Spraint	1 Count of Droppings	Sch9_part1	714
SE18571440	American Mink	*Mustela vison*	terrestrial mammal	25/08/2001	tracks/trail	1 Count of Tracks	Sch9_part1	655
SE186136	American Mink	*Mustela vison*	terrestrial mammal	15/09/2001	Spraint	1 Count of Droppings	Sch9_part1	1,145
SE186136	American Mink	*Mustela vison*	terrestrial mammal	15/09/2001	tracks/trail	1 Count of Tracks	Sch9_part1	1,145
SE18641427	American Mink	*Mustela vison*	terrestrial mammal	15/09/2001	Spraint	1 Count of Droppings	Sch9_part1	639
SE1803714537	Unidentified Bat	*Myotis*	terrestrial mammal	Sep-14	foraging		Sch5	1,163
SE1859113459	Brandt's Bat	*Myotis brandtii*	terrestrial mammal	May 2019 - June 2019	Roost (maternity)		Sch5; WYBAP; Kirklees BAP	1,272
SE1859113459	Whiskered Bat	*Myotis mystacinus*	terrestrial mammal	May 2019 - June 2019	Roost (maternity)		Sch5; WYBAP; Kirklees BAP	1,272

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE19271396	Leisler's Bat	*Nyctalus leisleri*	terrestrial mammal	23/06/2015	field record	4+ Count	Sch5; WYBAP; Kirklees BAP	618
SE19271396	Leisler's Bat	*Nyctalus leisleri*	terrestrial mammal	23/06/2015	foraging	4+ Count	Sch5; WYBAP; Kirklees BAP	618
SE186139	Noctule	*Nyctalus noctula*	terrestrial mammal	01/09/2015	field record		Sch5; UKBAP; WYBAP; Kirklees BAP	904
SE1984414712	Noctule	*Nyctalus noctula*	terrestrial mammal	24/09/2013	field record	1 Count	Sch5; UKBAP; WYBAP; Kirklees BAP	654
SE1746015465	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	01/08/2013	field record		Sch5; WYBAP; Kirklees BAP	1,953
SE1803714537	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	Sep-14	foraging		Sch5; WYBAP; Kirklees BAP	1,163
SE1859113459	Common Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	May 2019 - June 2019	Roost (maternity)	12 Count of Present	Sch5; WYBAP; Kirklees BAP	1,272
SE1866113988	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	01/09/2015	Roost		Sch5; WYBAP; Kirklees BAP	798
SE1866113988	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	01/09/2015	field record	2 Count	Sch5; WYBAP; Kirklees BAP	798
SE1867013989	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	01/09/2015	Roost		Sch5; WYBAP; Kirklees BAP	791
SE1867013989	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	01/09/2015	field record	1 Count	Sch5; WYBAP; Kirklees BAP	791
SE1873314945	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	23/05/2017	field record		Sch5; WYBAP; Kirklees BAP	597
SE1873314945	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	24/05/2017	field record	3 Count	Sch5; WYBAP; Kirklees BAP	597
SE1887313244	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	01/05/2013	field record	2 Count	Sch5; WYBAP; Kirklees BAP	1,371
SE1905013470	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	09/04/2009	field record		Sch5; WYBAP; Kirklees BAP	1,115

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE1905213488	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	Aug-14	foraging		Sch5; WYBAP; Kirklees BAP	1,097
SE191132	Common Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	04/08/2008	aural bat detector		Sch5; WYBAP; Kirklees BAP	1,378
SE1915013542	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	30/08/2018	Roost	1 Count	Sch5; WYBAP; Kirklees BAP	1,034
SE192130	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	29/09/2014	field record		Sch5; WYBAP; Kirklees BAP	1,574
SE197129	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	05/05/2009	field record	2 Count	Sch5; WYBAP; Kirklees BAP	1,746
SE197129	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	06/05/2009	field record	1 Count	Sch5; WYBAP; Kirklees BAP	1,746
SE1984414712	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	24/09/2013	field record	2 Count	Sch5; WYBAP; Kirklees BAP	654
SE199147	Common Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	11/05/2008	aural bat detector		Sch5; WYBAP; Kirklees BAP	706
SE1992712776	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	24/08/2011	Roost	1 Count	Sch5; WYBAP; Kirklees BAP	1,938
SE19931278	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	24/08/2011	field record	5 Count	Sch5; WYBAP; Kirklees BAP	1,935
SE20211387	Pipistrelle	*Pipistrellus pipistrellus*	terrestrial mammal	19/07/2011	field record		Sch5; WYBAP; Kirklees BAP	1,227
SE1920213078	55 Khz Pipistrelle	*Pipistrellus pipistrellus 55kHz*	terrestrial mammal	Sep-14	foraging		Sch5; UKBAP; WYBAP; Kirklees BAP	1,496
SE186139	Soprano Pipistrelle	*Pipistrellus pygmaeus*	terrestrial mammal	01/09/2015	field record		Sch5; UKBAP; WYBAP; Kirklees BAP	904
SE1930813316	Pipistrelle Bat species	*Pipistrellus sp.*	terrestrial mammal	06/02/2007	Roost (hibernacula)	2 Count of Adult	Sch5	1,263

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE1984414712	Brown Long-Eared Bat	*Plecotus auritus*	terrestrial mammal	24/09/2013	field record	1 Count	Sch5; UKBAP; WYBAP; Kirklees BAP	654
SE2021013870	Brown Long-Eared Bat	*Plecotus auritus*	terrestrial mammal	29/06/2011	Roost	1 Count	Sch5; UKBAP; WYBAP; Kirklees BAP	1,227
SE2021513836	Brown Long-Eared Bat	*Plecotus auritus*	terrestrial mammal	14/09/2010	Roost	1 Count	Sch5; UKBAP; WYBAP; Kirklees BAP	1,251
SE2021613838	Brown Long-Eared Bat	*Plecotus auritus*	terrestrial mammal	2009	Roost (hibernacula)		Sch5; UKBAP; WYBAP; Kirklees BAP	1,250
SE180137	Grey Squirrel	*Sciurus carolinensis*	terrestrial mammal	15/05/2015	field observation		Sch9_part1	1,485
SE186137	Eastern Grey Squirrel	*Sciurus carolinensis*	terrestrial mammal	03/07/2013	field observation		Sch9_part1	1,061
SE195144	Grey Squirrel	*Sciurus carolinensis*	terrestrial mammal	30/04/2015	field observation		Sch9_part1	344
SE177152	Vesper Bat species	*Vespertilionidae*	terrestrial mammal	17/09/2007	Casualty	1 Count of Adult	Sch5	1,624
SE1793515956	Vesper Bat species	*Vespertilionidae*	terrestrial mammal	28/07/2003	Roost	40 Count of Adult	Sch5	1,872
SE1820616050	Vesper Bat species	*Vespertilionidae*	terrestrial mammal	02/07/2001	Roost	30 Count of Adult	Sch5	1,778
SE1823416111	Vesper Bat species	*Vespertilionidae*	terrestrial mammal	01/04/2010	Roost (possible)		Sch5	1,814
SE1860315095	Bats	*Vespertilionidae*	terrestrial mammal	31/07/2012	Roost (maternity)	1 Count	Sch5	793
SE1906312880	Vesper Bat species	*Vespertilionidae*	terrestrial mammal	21/06/2005	Roost		Sch5	1,700
SE1920514752	Vesper Bat species	*Vespertilionidae*	terrestrial mammal	31/08/2000	Roost	1 Count of Adult	Sch5	177

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE1926313274	Bats	*Vespertilionidae*	terrestrial mammal	2007	in building		Sch5	1,302
SE1981712976	Vesper Bat species	*Vespertilionidae*	terrestrial mammal	05/01/2006	in building	1 Count of Adult	Sch5	1,712
SE1997715477	Vesper Bat species	*Vespertilionidae*	terrestrial mammal	1999	Roost (possible)		Sch5	1,187

APPENDIX 6

Habitat Suitability Index (HSI) Assessment of Ponds for Great Crested Newt

Pond number/reference		**P1**		
OS Grid reference		SE 19141 14216		
Habitat Suitability Index				
				SI value
SI1.	Map location	**A/B/C**	A	1.00
SI2.	Surface area	**rectangle/ellipse/irregular**	ellipse	
		length (m)	50	
		width (m)	30	
		OR estimate (m^2) if irregular		
		area (m^2) =	1177.5	0.92
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	never	0.90
SI4.	Water quality	**good/moderate/poor/bad**	moderate	0.67
SI5.	Shade	% of margin shaded 1m from bank	90	0.40
SI6.	Waterfowl	**absent/major/minor**	minor	0.67
SI7.	Fish population	**absent/possible/minor/major**	minor	0.33
SI8.	Pond density	number of ponds within 1km	4	1.00
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	good	1.00
SI10.	Macrophyte cover	%	10	0.41
			HSI =	**0.68**
Use provisional HSI value if above 0.75			provisional HSI =	0.65

Pond number/reference		**P2**		
OS Grid reference		SE 19003 14498		
Habitat Suitability Index				
				SI value
SI1.	Map location	**A/B/C**	A	1.00
SI2.	Surface area	**rectangle/ellipse/irregular**	ellipse	
		length (m)	2.5	
		width (m)	2.5	
		OR estimate (m^2) if irregular		
		area (m^2) =	4.90625	0.01
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	never	0.90
SI4.	Water quality	**good/moderate/poor/bad**	moderate	0.67
SI5.	Shade	% of margin shaded 1m from bank	0	1.00
SI6.	Waterfowl	**absent/major/minor**	absent	1.00
SI7.	Fish population	**absent/possible/minor/major**	absent	1.00
SI8.	Pond density	number of ponds within 1km	4	1.00
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	poor	0.33
SI10.	Macrophyte cover	%	0	0.31
			HSI =	**0.48**
			provisional HSI =	0.44
Use provisional HSI value if above 0.75				

Pond number/reference		**P3**		
OS Grid reference		SE 19511 14848		
Habitat Suitability Index				
				SI value
SI1.	Map location	**A/B/C**	A	1.00
SI2.	Surface area	**rectangle/ellipse/irregular**	ellipse	
		length (m)	15	
		width (m)	3	
		OR estimate (m^2) if irregular		
		area (m^2) =	35.325	0.07
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	frequently	0.10
SI4.	Water quality	**good/moderate/poor/bad**	poor	0.33
SI5.	Shade	% of margin shaded 1m from bank	100	0.20
SI6.	Waterfowl	**absent/major/minor**	absent	1.00
SI7.	Fish population	**absent/possible/minor/major**	absent	1.00
SI8.	Pond density	number of ponds within 1km	4	1.00
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	good	1.00
SI10.	Macrophyte cover	%	0	0.31
			HSI =	**0.41**
			provisional HSI =	0.37
Use provisional HSI value if above 0.75				

Pond number/reference		**P4**		
OS Grid reference		SE 18895 14259		
Habitat Suitability Index				
				SI value
SI1.	Map location	**A/B/C**	A	1.00
SI2.	Surface area	**rectangle/ellipse/irregular**	ellipse	
		length (m)	20	
		width (m)	5	
		OR estimate (m^2) if irregular		
		area (m^2) =	78.55	0.16
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	frequently	0.10
SI4.	Water quality	**good/moderate/poor/bad**	moderate	0.67
SI5.	Shade	% of margin shaded 1m from bank	90	0.40
SI6.	Waterfowl	**absent/major/minor**	absent	1.00
SI7.	Fish population	**absent/possible/minor/major**	absent	1.00
SI8.	Pond density	number of ponds within 1km	4	1.00
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	good	1.00
SI10.	Macrophyte cover	%	0	0.31
			HSI =	**0.51**
			provisional HSI =	0.48
Use provisional HSI value if above 0.75				

Pond number/reference		**D1**		
OS Grid reference		SE 19164 14321		
Habitat Suitability Index				
				SI value
SI1.	Map location	**A/B/C**	A	1.00
SI2.	Surface area	**rectangle/ellipse/irregular**	rectangle	
		length (m)	30	
		width (m)	2	
		OR estimate (m^2) if irregular		
		area (m^2) =	60	0.12
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	rarely	1.00
SI4.	Water quality	**good/moderate/poor/bad**	good	1.00
SI5.	Shade	% of margin shaded 1m from bank	95	0.30
SI6.	Waterfowl	**absent/major/minor**	absent	1.00
SI7.	Fish population	**absent/possible/minor/major**	possible	0.67
SI8.	Pond density	number of ponds within 1km	4	1.00
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	good	1.00
SI10.	Macrophyte cover	%	5	0.36
			HSI =	**0.62**
			provisional HSI =	0.59
Use provisional HSI value if above 0.75				

APPENDIX 7

Full List of Bird Species Recorded During CBC Breeding Bird Surveys

Species	Conservation Status	Summary of Records	Likely Breeding Status
Blackbird (*Turdus merula*)	-	Regularly recorded in vegetation across the Site. Peak of seven recorded in June.	Probable
Blackcap (*Sylvia atricapilla*)	-	Recorded regularly close to boundary vegetation, mostly in the southern half of the Site or beyond the Site boundary.	Probable
Blue tit (*Cyanistes caeruleus*)	-	Recorded frequently calling or singing within boundary vegetation and Lepton Great Wood. Peak of nine recorded in April and June.	Probable
Buzzard (*Buteo buteo*)	-	Individual flying over Field 7 in June; and south of Site in May.	Possible
Carrion crow (*Corvus corone*)	-	Individual recorded in Lepton Great Wood in April, and individual recorded in Field 4 in May.	Possible
Chaffinch (*Fringilla coelebs*)	-	Recorded singing regularly in vegetation across the Site. Peak of four recorded in May.	Probable
Chiffchaff (*Phylloscopus collybita*)	-	Recorded occasionally singing from boundary vegetation.	Probable
Coal tit (*Periparus ater*)	-	Individual recorded singing within Lepton Great Wood (off-Site) in April and Amy.	Possible (off-Site)
Dunnock (*Troglodytes troglodytes*)	Amber; S41; LBAP	Recorded regularly singing from vegetation in the interior of the Site and along Site boundaries. Peak of four recorded in May and June.	Probable
Goldcrest (*Regulus regulus*)	-	Recorded off-Site in May, in field to west of Site and in Lepton Great Wood	Possible (off-Site)
Goldfinch (*Carduelis carduelis*)	-	Recorded regularly singing from boundary vegetation. Peak of five recorded in May.	Probable
Great spotted woodpecker (*Dendrocopos major*)	-	Individual recorded flying across Field 3, and singing from Lepton Great Wood, in April. Two individuals recorded in Lepton Great Wood in May, and individual recorded in Lepton Great Wood and in a garden north of the Site in June. Woodpecker hole present in Tree T37.	Possible
Great tit (*Parus major*)	-	Recorded occasionally singing from boundary hedgerows / trees and Lepton Great Wood. Peak of four recorded in April.	Probable
Grey Heron (*Ardea cinerea*)	-	Recorded south of Beldon Brook in May, and by Pond P1 in June (both off-Site)	Unlikely (off-Site)
Grey wagtail (*Motacilla cinerea*)	Red	Recorded by Pond P1 (off-Site) in May	Possible (off-Site)
House sparrow (*Passer domesticus*)	Red; S41; LBAP	Recorded off-Site only, in gardens to the north of the Site. Peak of six recorded in May.	Possible (off-Site)
Jackdaw (*Corvus monedula*)	-	Two recorded off-Site in scrub between Fields 5 and 6 in May; recorded occasionally off-Site in June.	Possible

Species	Conservation Status	Summary of Records	Likely Breeding Status
Kestrel (*Falco tinnunculus*)	Amber	Individual hunting in Field 5 in June	Possible
Kingfisher (*Alcedo atthis*)	Amber; S1	Individual recorded at Pond P1 (off-Site) in April	Possible (off-Site)
Linnet (*Linaria cannabina*)	Red; S41; LBAP	Two recorded flying across Fields 2 and 3 in April, and individual recorded singing from boundary vegetation in Field 1 in May.	Possible
Long-tailed tit (*Aegithalos caudatus*)	-	Recorded calling from scrub between Fields 5, 6 and 7 in May, and occasionally off-Site in May and June.	Possible
Magpie (*Pica pica*)	-	Active nest present in hawthorn in Field 1, and on western boundary, in May. Family noted by boundary of Field 6 / 7, and in Field 3 in June. Disused nest present in boundary vegetation between Fields 6 and 7. Peak of five in April.	Confirmed
Mallard (*Anas platyrhynchos*)	Amber	Between one and four mallards recorded in and around Pond P1 (off-Site) during each surveyor recorded here in June; pair recorded in Field 6 in April.	Possible
Mistle thrush (*Turdus viscivorous*)	Red	Two observed in aggressive encounter with a sparrowhawk in Lepton Great Wood in April.	Possible
Nuthatch (*Sitta europaea*)	-	Individual recorded south of Beldon Brook (off-Site) in April, and north of Beldon Brook (on-Site) in May.	Possible
Robin (*Erithacus rubecula*)	-	Regularly recorded singing from vegetation at most field boundaries, and in Lepton Great Wood. Peak of ten recorded in May.	Probable
Song thrush (*Turdus philomelos*)	Red; S41; LBAP	Individual singing from scrub in south-west corner of Site in April; two recorded off-Site near Pond P1 in May and June.	Possible
Sparrowhawk (*Accipiter nisus*)	-	Aggressive encounter observed between a female sparrowhawk and two mistle thrush in Lepton Great Wood in April; individual flew across Field 7 in May.	Possible
Starling (*Sturnus vulgaris*)	Red; S41; LBAP	Three recorded in field immediately south of Field 4 (off-Site) in June.	Unlikely (off-Site)
Swallow (*Hirundo rustica*)	-	Two flying over Field 5 in May; and one over Field 7 in June.	Non-breeding
Swift (*Apus apus*)	Amber	Two flying across Field 5 in May; one feeding over Field 4 and Field 1 in June.	Non-breeding
Teal (*Anas crecca*)	Amber	Individual recorded on Pond P1 (off-Site) in May	Unlikely (off-Site)
Willow warbler (*Phylloscopus trochilus*)	-	Individual recorded by Pond P1 (off-Site) in May.	Possible (off-Site)
Woodpigeon (*Columba palumbus*)	-	Active nest in hawthorn within Field F1 in April. Recorded regularly across the Site and surroundings during all surveys.	Confirmed
Wren (*Troglodytes troglodytes*)	-	Regularly recorded singing from boundary vegetation and Lepton Great Wood. Peak of nine recorded in May.	Probable
Yellowhammer (*Emberiza citrinella*)	Red; S41; LBAP	Individual singing from hawthorn scrub in centre of Field 1 in April.	Possible

APPENDIX 8

Results Tables of Bat Activity Surveys

Summary of results of walked bat transect surveys during 2017 (averages from three surveys)

Sample Point Count	Common pipistrelle	Myotis sp.	Noctule	Brown long-eared	Total	
					BAIV (Average / 5 mins)	BAIV^{hr} (Average / hour)
1	11.33	0.00	0.00	0.00	11.33	136
2	3.33	0.00	0.00	0.00	3.33	40
3	1.67	0.00	0.00	0.00	1.67	20
4	5.67	0.00	0.00	0.00	5.67	68
5	15.67	0.00	0.00	2.00	17.67	212
6	1.33	0.33	0.00	0.33	2.00	24
7	2.00	0.00	0.00	0.00	2.00	24
8	4.00	0.00	0.00	0.00	4.00	48
9	2.67	0.00	0.00	0.00	2.67	32
10	2.33	0.00	0.33	0.00	2.67	32
11	1.67	0.00	0.00	0.00	1.67	20
12	0.33	0.00	0.00	0.00	0.33	4
13	0.67	0.00	0.33	0.67	1.67	20
14	1.33	0.00	0.00	0.67	2.00	24
15	1.33	0.00	0.00	0.33	1.67	20
16	0.67	0.00	0.00	1.00	1.67	20
17	21.67	3.33	0.00	1.00	26.00	312
18	0.00	0.33	0.00	0.00	0.33	4
19	10.67	0.00	0.00	0.00	10.67	128
20	6.00	0.00	0.00	0.33	6.33	76
21	3.00	0.67	0.00	0.00	3.67	44
22	0.67	0.00	0.00	0.00	0.67	8

Sample Point Count	Common pipistrelle	Myotis sp.	Noctule	Brown long-eared	Total	
					BAIV (Average / 5 mins)	BAIV^{hr} (Average / hour)
Average/ 5 mins	4.45	0.21	0.03	0.29	4.98	60
Average/ hr	53.45	2.55	0.36	3.45	59.82	118

Results of static bat detector surveys in 2017

Average – All Survey Sessions

Sample Point	Bat Pass / Hour							
	Common pipistrelle	**Soprano pipistrelle**	**Nathusius' pipistrelle**	***Myotis* sp.**	**Noctule**	**Noctule / Leisler's**	**Brown long-eared**	**Total**
A	7.227	0.006	0.000	0.296	0.165	0.027	0.027	7.751
B	2.475	0.006	0.006	0.082	0.241	0.034	0.048	2.896
C	26.441	0.013	0.000	1.572	0.337	0.200	0.006	28.572
D	8.751	0.027	0.000	0.144	0.331	0.124	0.006	9.386
E	24.268	0.151	0.000	28.400	0.310	0.034	0.020	53.186
Total	69.165	0.206	0.006	30.496	1.386	0.420	0.110	101.793

May 2017 Survey

Sample Point	Bat Pass / Hour							
	Common pipistrelle	**Soprano pipistrelle**	**Nathusius' pipistrelle**	***Myotis* sp.**	**Noctule**	**Noctule / Leisler's**	**Brown long-eared**	**Total**
A	12.431	0.022	0.000	0.250	0.454	0.000	0.000	13.159
B	3.318	0.000	0.022	0.000	0.340	0.022	0.022	3.727
C	26.045	0.045	0.000	0.568	1.068	0.340	0.022	28.090
D	12.886	0.068	0.000	0.295	1.045	0.136	0.022	14.454
E	23.522	0.090	0.000	79.863	0.886	0.022	0.045	104.431
Total	78.204	0.227	0.022	80.977	3.795	0.522	0.090	163.863

July 2017 Survey

Sample Point	Bat Pass / Hour							
	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	*Myotis* sp.	Noctule	Noctule / Leisler's	Brown long-eared	Total
A	7.750	0.00	0.000	0.7	0.025	0.075	0.075	8.625
B	1.675	0.000	0.000	0.025	0.275	0.100	0.100	2.175
C	51.300	0.000	0.000	3.8	0.000	0.225	0.000	55.325
D	8.300	0.025	0.000	0.05	0.000	0.300	0.000	8.675
E	38.000	0.125	0.000	7.95	0.000	0.075	0.000	46.150
Total	107.1	0.150	0.000	12.525	0.400	0.775	0.175	121.075

September 2017 Survey

Sample Point	Bat Pass / Hour							
	Common pipistrelle	Soprano pipistrelle	Nathusius pipistrelle	*Myotis* sp.	Noctule	Noctule / Leisler's	Brown long-eared	Total
A	3.131	0.000	0.000	0.065	0.049	0.016	0.016	3.278
B	2.393	0.016	0.000	0.180	0.147	0.000	0.032	2.770
C	10.426	0.000	0.000	0.836	0.032	0.081	0.000	11.377
D	6.065	0.000	0.000	0.098	0.032	0.000	0.000	6.196
E	15.803	0.213	0.000	4.688	0.098	0.016	0.016	20.836
Total	37.819	0.229	0.000	5.868	0.360	0.114	0.065	44.459

APPENDIX 9

Metric 3.0 Biodiversity Net Gain Assessment

The Biodiversity Metric 3.0 - Calculation Tool
Start page

Project details	
Planning authority:	Kirklees Council
Project name:	Land off Hermitage Park, Lepton
Applicant:	KCS
Application type:	Residential
Planning application reference:	
Assessor:	Gary Oliver (Principal Ecologist, SLR Consulting)
Reviewer:	
Metric version:	
Assessment date:	15th April 2022
Planning authority reviewer:	

Instructions

Main menu

Results

Cell style conventions	
	Enter data
	Automatic lookup
	Result

View all

Reset view

On-site baseline map Insert

On-site post intervention map Insert

Off-site baseline map Insert

Off-site post intervention map Insert

The Biodiversity Metric 3.0 - Calculation Tool
Start page

Project details	
Planning authority:	Kirklees Council
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Instructions

Main menu

Results

Cell style conventions	
	Enter data
	Automatic lookup
	Result

View all

Reset view

On-site baseline map Insert

On-site post intervention map Insert

Off-site baseline map Insert

Off-site post intervention map Insert

Return to results menu

Trading Summary

Distinctiveness Group	Trading Rule	Trading Satisfied?
Very High	Bespoke compensation likely to be required	Yes
High	Same habitat required	Yes
Medium	Same broad habitat or a higher distinctiveness habitat required	Yes
Low	Same distinctiveness or better habitat required	Yes

Very High Distinctiveness

Habitat group	Group	On Site Unit Change	Off Site Unit Change	Project wide Unit Change	Unit Losses
Grassland - Lowland dry acid grassland	Grassland	0.00	0.00	0.00	
Grassland - Lowland meadows	Grassland	0.00	0.00	0.00	
Grassland - Upland hay meadows	Grassland	0.00	0.00	0.00	
Heathland and shrub - Mountain heaths and willow scrub	Heathland and shrub	0.00	0.00	0.00	
Lakes - Aquifer fed naturally fluctuating water bodies	Lakes	0.00	0.00	0.00	
Sparsely vegetated land - Calaminarian grasslands	Sparsely vegetated land	0.00	0.00	0.00	
Sparsely vegetated land - Limestone pavement	Sparsely vegetated land	0.00	0.00	0.00	
Wetland - Blanket bog	Wetland	0.00	0.00	0.00	
Wetland - Depressions on Peat substrates (H7150)	Wetland	0.00	0.00	0.00	
Wetland - Fens (upland and lowland)	Wetland	0.00	0.00	0.00	
Wetland - Lowland raised bog	Wetland	0.00	0.00	0.00	
Wetland - Oceanic Valley Mire[1] (D2.1)	Wetland	0.00	0.00	0.00	
Wetland - Purple moor grass and rush pastures	Wetland	0.00	0.00	0.00	
Wetland - Transition mires and quaking bogs (H7140)	Wetland	0.00	0.00	0.00	
Woodland and forest - Wood-pasture and parkland	Woodland and forest	0.00	0.00	0.00	
Rocky shore - High energy littoral rock - on peat, clay or chalk	Rocky shore	0.00	0.00	0.00	
Rocky shore - Moderate energy littoral rock - on peat, clay or chalk	Rocky shore	0.00	0.00	0.00	
Rocky shore - Low energy littoral rock - on peat, clay or chalk	Rocky shore	0.00	0.00	0.00	
Rocky shore - Features of littoral rock - on peat, clay or chalk	Rocky shore	0.00	0.00	0.00	
Intertidal sediment - Littoral seagrass on peat, clay or chalk	Intertidal sediment	0.00	0.00	0.00	
		0.00	0.00	0.00	0.00

Very High Distinctiveness Summary

Very High Distinctiveness Units available to offset lower distinctiveness deficit	0.00

High Distinctiveness

Habitat group	Group	On Site Unit Change	Off Site Unit Change	Project wide Unit Change	Losses not yet accounted for
Grassland - Traditional orchards	Grassland	0.00	0.00	0.00	
Grassland - Floodplain Wetland Mosaic (CFGM)	Grassland	0.00	0.00	0.00	
Grassland - Lowland calcareous grassland	Grassland	0.00	0.00	0.00	
Grassland - Tall herb communities	Grassland	0.00	0.00	0.00	
Grassland - Upland calcareous grassland	Grassland	0.00	0.00	0.00	
Heathland and shrub - Lowland Heathland	Grassland	0.00	0.00	0.00	
Heathland and shrub - Sea buckthorn scrub (Annex 1)	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Upland Heathland	Heathland and shrub	0.00	0.00	0.00	
Lakes - High alkalinity lakes	Lakes	0.00	0.00	0.00	
Lakes - Low alkalinity lakes	Lakes	0.00	0.00	0.00	
Lakes - Marl Lakes	Lakes	0.00	0.00	0.00	
Lakes - Moderate alkalinity lakes	Lakes	0.00	0.00	0.00	
Lakes - Peat Lakes	Lakes	0.00	0.00	0.00	
Lakes - Ponds (Priority Habitat)	Lakes	0.00	0.00	0.00	
Lakes - Temporary lakes, ponds and pools	Lakes	0.00	0.00	0.00	
Sparsely vegetated land - Coastal sand dunes	Sparsely vegetated land	0.00	0.00	0.00	
Sparsely vegetated land - Coastal vegetated shingle	Sparsely vegetated land	0.00	0.00	0.00	
Sparsely vegetated land - Inland rock outcrop and scree habitats	Sparsely vegetated land	0.00	0.00	0.00	
Sparsely vegetated land - Maritime cliff and slopes	Sparsely vegetated land	0.00	0.00	0.00	
Urban - Open Mosaic Habitats on Previously Developed Land	Urban	0.00	0.00	0.00	
Wetland - Reedbeds	Wetland	0.00	0.00	0.00	
Woodland and forest - Felled	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Lowland beech and yew woodland	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Lowland mixed deciduous woodland	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Native pine woodlands	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Upland birchwoods	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Upland mixed ashwoods	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Upland oakwood	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Wet woodland	Woodland and forest	0.00	0.00	0.00	
Coastal lagoons - Coastal lagoons	Coastal lagoons	0.00	0.00	0.00	
Rocky shore - High energy littoral rock	Rocky shore	0.00	0.00	0.00	
Rocky shore - Moderate energy littoral rock	Rocky shore	0.00	0.00	0.00	
Rocky shore - Low energy littoral rock	Rocky shore	0.00	0.00	0.00	
Rocky shore - Features of littoral rock	Rocky shore	0.00	0.00	0.00	
Intertidal sediment - Littoral mud	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral mixed sediments	Intertidal sediment	0.00	0.00	0.00	
Coastal saltmarsh - Saltmarshes and saline reedbeds	Coastal Saltmarsh	0.00	0.00	0.00	
Intertidal sediment - Littoral biogenic reefs - Mussels	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral biogenic reefs - Sabellaria	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Features of littoral sediment	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral muddy sand	Intertidal sediment	0.00	0.00	0.00	
		0.00	0.00	0.00	0.00

High Distinctiveness Summary

High Distinctiveness Units available to offset lower distinctiveness deficit	0.00
Unit Defecit; Like for like not satisfied	0.00

Medium Distinctiveness

Habitat Group	Group	On site unit change	Off Site Unit Change	Project wide unit change	Cumulative Broad Habitat Change
Cropland - Arable field margins cultivated annually	Cropland	0.00	0.00	0.00	0.00
Cropland - Arable field margins game bird mix	Cropland	0.00	0.00	0.00	
Cropland - Arable field margins pollen & nectar	Cropland	0.00	0.00	0.00	
Cropland - Arable field margins tussocky	Cropland	0.00	0.00	0.00	
Cropland - Cereal crops winter stubble	Cropland	0.00	0.00	0.00	
Grassland - Other lowland acid grassland	Grassland	0.00	0.00	0.00	10.02
Grassland - Other neutral grassland	Grassland	10.02	0.00	10.02	
Grassland - Upland acid grassland	Grassland	0.00	0.00	0.00	
Heathland and shrub - Blackthorn scrub	Heathland and shrub	0.00	0.00	0.00	10.11
Heathland and shrub - Bramble scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Gorse scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Hawthorn scrub	Heathland and shrub	-0.06	0.00	-0.06	
Heathland and shrub - Hazel scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Mixed scrub	Heathland and shrub	10.17	0.00	10.17	
Lakes - Ponds (Non- Priority Habitat)	Lakes	0.00	0.00	0.00	0.00
Lakes - Reservoirs	Lakes	0.00	0.00	0.00	
Sparsely vegetated land - Other inland rock and scree	Sparsely vegetated land	0.00	0.00	0.00	0.00
Urban - Brown roof	Urban	0.00	0.00	0.00	0.00
Urban - Cemeteries and churchyards	Urban	0.00	0.00	0.00	
Urban - Intensive green roof	Urban	0.00	0.00	0.00	
Woodland and forest - Other Scot's Pine woodland	Woodland and forest	0.00	0.00	0.00	0.91
Woodland and forest - Other woodland; broadleaved	Woodland and forest	0.91	0.00	0.91	
Woodland and forest - Other woodland; mixed	Woodland and forest	0.00	0.00	0.00	
Intertidal sediment - Littoral coarse sediment	Intertidal sediment	0.00	0.00	0.00	0.00
Intertidal sediment - Littoral sand	Intertidal sediment	0.00	0.00	0.00	
Intertidal Hard Structures - Artificial hard structures with Integrated Greening of Grey Infrastructure (IGGI)	Intertidal	0.00	0.00	0.00	
		21.04	0.00	21.04	

Medium Distinctiveness Summary

Medium Distinctiveness Units available to offset lower distinctiveness deficit	21.04
Medium Distinctiveness Broad Habitat Deficit to be offset by trading up	0.00
Higher distinctiveness surplus units minus Medium Distinctivenas Broad Habitat Defecit	0.00
Cumulative surplus of units	21.04

Low Distinctiveness

Habitat group	Group	On site unit change	Off Site Unit Change	Project wide unit change
Cropland - Cereal crops	Cropland	0.00	0.00	0.00
Cropland - Cereal crops other	Cropland	0.00	0.00	0.00
Cropland - Horticulture	Cropland	0.00	0.00	0.00
Cropland - Intensive orchards	Cropland	0.00	0.00	0.00
Cropland - Non-cereal crops	Cropland	0.00	0.00	0.00
Cropland - Temporary grass and clover leys	Cropland	0.00	0.00	0.00
Grassland - Modified grassland	Grassland	-21.45	0.00	-21.45
Grassland - Bracken	Grassland	0.00	0.00	0.00
Heathland and shrub - Rhododendron scrub	Heathland and shrub	0.00	0.00	0.00
Lakes - Ornamental lake or pond	Lakes	0.00	0.00	0.00
Sparsely vegetated land - Ruderal/Ephemeral	Sparsely vegetated land	0.00	0.00	0.00
Urban - Bioswale	Sparsely vegetated land	0.00	0.00	0.00
Urban - Allotments	Urban	0.00	0.00	0.00
Urban - Facade-bound green wall	Urban	0.00	0.00	0.00
Urban - Ground based green wall	Urban	0.00	0.00	0.00
Urban - Ground level planters	Urban	0.00	0.00	0.00
Urban - Extensive green roof	Urban	0.00	0.00	0.00
Urban - Introduced shrub	Urban	0.00	0.00	0.00
Urban - Rain garden	Urban	0.00	0.00	0.00
Urban - Sand pit quarry or open cast mine	Urban	0.00	0.00	0.00
Urban - Urban Tree	Urban	1.38	0.00	1.38
Urban - Sustainable urban drainage feature	Urban	0.00	0.00	0.00
Urban - Vacant/derelict land/ bareground	Urban	0.00	0.00	0.00
Urban - Vegetated garden	Urban	1.74	0.00	1.74
Woodland and forest - Other coniferous woodland	Woodland and forest	0.00	0.00	0.00
Coastal saltmarsh - Artificial saltmarshes and saline reedbeds	Coastal saltmarsh	0.00	0.00	0.00
Intertidal sediment - Artificial littoral coarse sediment	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral mud	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral sand	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral muddy sand	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral mixed sediments	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral seagrass	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral biogenic reefs	Intertidal sediment	0.00	0.00	0.00
Intertidal Hard Structures - Artificial hard structures	Intertidal	0.00	0.00	0.00
Intertidal Hard Structures - Artificial features of hard structures	Intertidal	0.00	0.00	0.00
Heathland and shrub - Sea buckthorn scrub (other)	Heathland and shrub	0.00	0.00	0.00
		-18.34		-18.34

Low Distinctiveness Summary

Low Distinctiveness Net Change in Units	-18.34
Cumulative surplus of units	2.70

Land off Hermitage Park, Lepton

A-1 Site Habitat Baseline

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	Habitats and areas			Distinctiveness	Condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline	Retention category biodiversity value						Bespoke compensation agreed for unacceptable losses	Comments	
Ref	Broad habitat	Habitat type	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area lost	Units lost		Assessor comments	Reviewer comments
1	Woodland and forest	Other woodland; broadleaved	0.096	Medium	Fairly Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.58		0.087	0.00	0.52	0.01	0.05		H1 in Drawing 1	
2	Woodland and forest	Other woodland; broadleaved	0.132	Medium	Fairly Good	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	1.32		0.1155	0.00	1.16	0.02	0.17		H2 in Drawing 1	
3	Heathland and shrub	Mixed scrub	0.017	Medium	Fairly Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.10		0.017	0.00	0.10	0.00	0.00		H3 in Drawing 1	
4	Heathland and shrub	Mixed scrub	0.024	Medium	Fairly Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.14		0.02	0.00	0.12	0.00	0.02		H4 in Drawing 1	
5	Heathland and shrub	Mixed scrub	0.028	Medium	Fairly Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.17		0.028	0.00	0.17	0.00	0.00		H5 in Drawing 1	
6	Heathland and shrub	Mixed scrub	0.01	Medium	Fairly Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.06			0.00	0.00	0.01	0.06		line of scrub separating Fields 5 and 6	
7	Heathland and shrub	Hawthorn scrub	0.01	Medium	Fairly Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.06			0.00	0.00	0.01	0.06		scattered hawthorn bushes, throughout site	
8	Grassland	Modified grassland	0.015	Low	Poor	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	0.03			0.00	0.00	0.02	0.03		amenity grassland beside footpath south of Hermitge House	
9	Grassland	Modified grassland	0.044	Low	Poor	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	0.09			0.00	0.00	0.04	0.09		area of short grassland between site and Hermitage Park (forming access route into site)	
10	Grassland	Other neutral grassland	0.01	Medium	Fairly Good	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.10	0.01		0.10	0.00	0.00	0.00		G1 and G2 in Drawing 1 being retained within grassland strip adjacent to Lepton Great Wood	
11	Grassland	Modified grassland	0.1	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	0.40		0.1	0.00	0.40	0.00	0.00		Area of existing grassland to be retained and have locally sourced oak trees grown	
12	Grassland	Modified grassland	0.42	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	1.68		0.42	0.00	1.68	0.00	0.00		Area of existing grassland to be retained and have native scrub grown	
13	Grassland	Modified grassland	0.55	Low	Moderate	Location ecologically desirable but not in local strategy	Same distinctiveness or better habitat required	2.42		0.55	0.00	2.42	0.00	0.00		Grassland strip adjacent to Lepton Great Wood to be retained allowed to grow tall, other than a narrow mown path	
14	Grassland	Modified grassland	0.1	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	0.40	0.1		0.40	0.00	0.00	0.00		Grassland within Field 2 to be retained next to Equipped Play Area, to be used for recreation	
15	Grassland	Modified grassland	3.84	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	15.36			0.00	0.00	3.84	15.36		Area of existing grassland in Fields 1-3, 5, 6 and 8 to be lost	
16	Woodland and forest	Other woodland; broadleaved	0.05	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.40	0.05		0.40	0.00	0.00	0.00		Retained trees T35, T36 and T37	
17	Grassland	Modified grassland	0.02	Low	Poor	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	0.04		0.02	0.00	0.04	0.00	0.00		Amenity grassland north of Field 10 to support a grassy footpath link	
18	Grassland	Modified grassland	0.05	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	0.20	0.05		0.20	0.00	0.00	0.00		Modifield grassland in Fields 9 and 10 to be retained as a grass track	
19	Grassland	Modified grassland	0.43	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	1.72		0.43	0.00	1.72	0.00	0.00		That part of Fields 9 and 10 to be retained and planted with scrub and scubby woodland	
20	Grassland	Modified grassland	0.2	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	0.80		0.2	0.00	0.80	0.00	0.00		That part of Field 4 to become a circular wildflower grassland area	
21	Grassland	Modified grassland	0.05	Low	Poor	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required	0.10		0.05	0.00	0.10	0.00	0.00		amenity grassland to be retained as a grass footpath	
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Land off Hermitage Park, Lepton

A-2 Site Habitat Creation

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Check Areas - Area of development footprint and habitat creation exceeds the area of habitats lost

Post development/ post intervention habitats																						
			Distinctiveness		Condition		Strategic significance			Temporal multiplier						Difficulty multipliers					Comments	
Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard time to target condition/years	Habitat created in advance/years	Delay in starting habitat creation/years	Standard or adjusted time to target condition	Final time to target condition/years	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied	Habitat units delivered	Assessor comments	Reviewer comments
Heathland and shrub	Mixed scrub	0.24	Medium	4	Fairly Good	2.5	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	7			Standard time to target condition applied	7	0.779	Low	Standard difficulty applied	Low	1	1.87	600m of new species-rich hedgerow, with a canopy spread of 4m once mature	
Grassland	Other neutral grassland	0.63	Medium	4	Fairly Good	2.5	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	7			Standard time to target condition applied	7	0.779	Low	Standard difficulty applied	Low	1	4.91	Tussocky grassland (EM10, or similar) to be sown within pond basins and in POS between the ponds	
Urban	Developed land; sealed surface	2.08	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0			Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Medium	0.67	0.00	Houses, roads, drives, garages, pumping station	
Urban	Vegetated garden	0.9	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1			Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	1.74	combined area of residential gardens	
Urban	Urban Tree	0.45	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	27			Standard time to target condition applied	27	0.382	Low	Standard difficulty applied	Low	1	1.38	115 street trees	
Grassland	Other neutral grassland	0.05	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5			Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	0.33	grassland around pumping station	
	Total area	3.90																	Total Units	10.23		

Land off Hermitage Park, Lepton

A-3 Site Habitat Enhancement

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Post development/ post intervention habitats

Baseline habitats		Proposed Habitat (Pre-Populated but can be overridden)		Change in distinctiveness and condition		Area (hectares)	Distinctiveness	Condition	Strategic significance	Temporal risk multiplier		Difficulty risk multiplier	Habitat units delivered	Comments	
Baseline ref	Baseline habitat	Proposed Broad Habitat	Proposed habitat	Distinctiveness change	Condition change				Strategic significance	Standard or adjusted time to target condition	Final time to target condition/years	Final difficulty of enhancement		Assessor comments	Reviewer comments
1	Woodland and forest - Other woodland; broadleaved	Woodland and forest	Other woodland; broadleaved	Medium - Medium	Fairly Poor - Fairly Good	0.07	Medium	Fairly Good	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	10	Low	0.77	Supplementary planting of 81 (Drawing 2)	
2	Woodland and forest - Other woodland; broadleaved	Woodland and forest	Other woodland; broadleaved	Medium - Medium	Fairly Good - Good	0.1169	Medium	Good	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	5	Low	1.35	Supplementary planting, including under planting with shrubs, of 69 (Drawing 2)	
3	Heathland and shrub - Mixed scrub	Heathland and shrub	Mixed scrub	Medium - Medium	Fairly Poor - Fairly Good	0.017	Medium	Fairly Good	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	5	Low	0.19	Thinning up of 88, increasing species richness and allowing to reach optimum height	
4	Heathland and shrub - Mixed scrub	Heathland and shrub	Mixed scrub	Medium - Medium	Fairly Poor - Fairly Good	0.018	Medium	Fairly Good	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	5	Low	0.19	Thinning up of 89, increasing species richness and allowing to reach optimum height	
5	Heathland and shrub - Mixed scrub	Heathland and shrub	Mixed scrub	Medium - Medium	Fairly Poor - Fairly Good	0.02	Medium	Fairly Good	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	5	Low	0.19	Thinning up of 86, increasing species richness and allowing to reach optimum height	
6	Heathland and shrub - Mixed scrub	Heathland and shrub	Mixed scrub	Medium - Medium	Fairly Poor - Fairly Good	0.038	Medium	Fairly Good	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	5	Low	0.36	Thinning up of 86, increasing species richness and allowing to reach optimum height	
7	Woodland and forest - Other woodland; broadleaved	Woodland and forest	Other woodland; broadleaved	Low - Medium	Lower Distinctiveness Habitat - Fairly Good	0.1	Medium	Fairly Good	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	10	Low	0.77	Creation of enhanced grassland to support nearby retained habitat	
8	Heathland and shrub - Mixed scrub	Heathland and shrub	Mixed scrub	Low - Medium	Lower Distinctiveness Habitat - Fairly Good	0.19	Medium	Good	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	10	Low	3.04	Creation of enhanced grassland to support nearby retained habitat	
9	Grassland - Modified grassland	Grassland	Other sown grassland	Low - Medium	Lower Distinctiveness Habitat - Good	0.55	Medium	Good	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	10	Low	4.79	Area of grassland to be retained adjacent to Lepton Dene Wood, and allowed to grow tall and species-rich, other than a narrow mown path	
10	Grassland - Modified grassland	Grassland	Modified grassland	Low - Low	Poor - Moderate	0.05	Low	Moderate	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	10	Low	0.27	To form part of mown path	
11	Grassland - Modified grassland	Heathland and shrub	Mixed scrub	Low - Medium	Lower Distinctiveness Habitat - Good	0.43	Medium	Good	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	10	Low	4.13	Modified grassland in Field 9 to become native species-rich scrub and scrubby woodland	
12	Grassland - Modified grassland	Grassland	Modified grassland	Low - Low	Moderate - Fairly Good	0.3	Low	Fairly Good	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	5	Low	0.64	To become a circular area of wildflower meadow in Field 9	
13	Grassland - Modified grassland	Grassland	Modified grassland	Low - Low	Poor - Moderate	0.05	Low	Moderate	Area/compensation not in local strategy/ so local strategy	Standard time to target condition applied	10	Low	0.17	To form part of mown path	
						8.94							17.61		

B-2 Site Hedge Creation

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		Proposed habitats		Habitat distinctiveness		Habitat condition		Strategic significance			Temporal multiplier						Difficulty risk multipliers					Comments	
Baseline ref	New hedge number	Habitat type	Length km	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard Time to target condition/years	Habitat created in advance/years	Delay in starting habitat creation/years	Standard or adjusted time to target condition	Final time to target condition/years	Final Time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied	Hedge units delivered	Assessor comments	Reviewer comments
1	various	Native Hedgerow	0.6	Low	2	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	12			Standard time to target condition applied	12	0.652	Low	Standard difficulty applied	Low	1	2.35	600m of new native hedgerow planting proposed, as illustrated in Appendix 2 (Landscape Masterplan)	
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