



AllAboutTrees

Arboricultural & Ecological Consultancy
Chartered Arboriculturalists & Environmentalists

Biodiversity Net Gain Feasibility Study

Land At

Florence Arts Centre
CA22 2NN



For

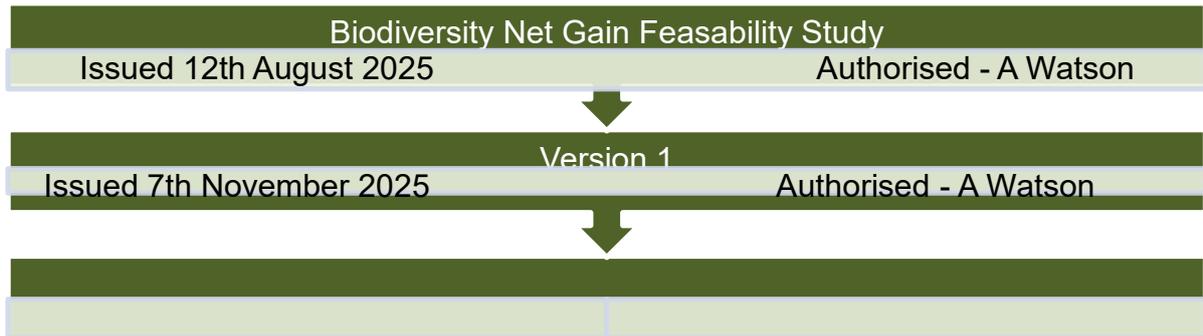
Florence Arts Centre

November 2025



Document Verification

Document Title	• BNG Feasability Study
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Reasons for revision

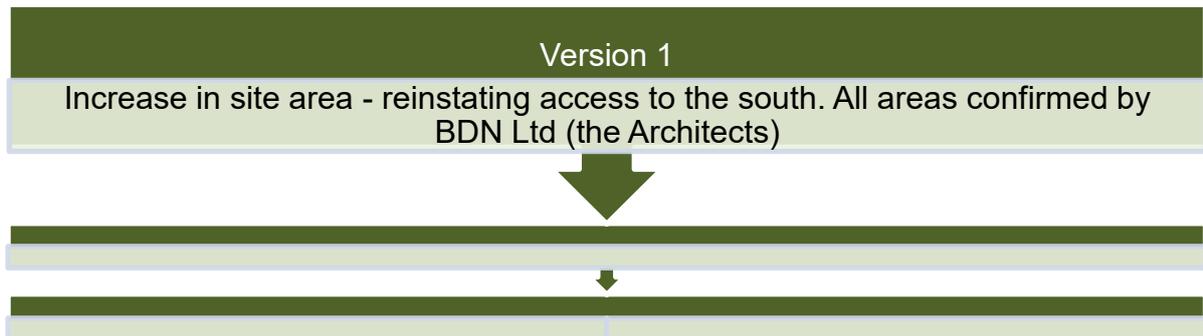


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Biodiversity Net Gain Metric	The Statutory Biodiversity Metric
Metric version	1.0.4 – 3 rd July 2025
Metric reference	SBMC Florence Arts Centre V1
Applicant	Florence Arts Centre
Project name	Florence Arts Centre
Post Code	CA22 2NN
Grid Reference	NY 01740 10309
Planning authority	Cumbria County
Planning reference	TBC
Date metric completed	7 th November 2025

1. Executive Summary

We are requested by Florence Arts Centre to provide a Biodiversity Net Gain (BNG) for land at Florence Arts Centre following the process set out in BS 8683 - BNG Principles. This report is Version 1.

Planning reference – TBC.

BNG Metric – The Statutory metric.

Option 1 – trees to be retained as advised.

Purchase of the appropriate Biodiversity Credits will be necessary to mitigate the proposals.

	Habitats	Hedges	Watercourses
Baseline	1.06	1.68	0
Post intervention	0.77	1.39	0
Net Change	-0.30	-0.3	0
	-27.91%	-18%	0%
Units required	1.17	1.86	0
Unit deficit	0.40	0.47	0

Trading Rules Satisfied	NO
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Tier	Unit Shortfall
A1	0.81
H	0.93

Option 2 – trees to be retained as advised to include replanting H6.

Purchase of the appropriate Biodiversity Credits will be necessary to mitigate the proposals.

	Habitats	Hedges	Watercourses
Baseline	1.06	1.68	0
Post intervention	0.77	1.86	0
Net Change	-0.30	0.17	0
	-27.91%	10%	0%
Units required	1.17	1.86	0
Unit deficit	0.40	N/A	0

Trading Rules Satisfied	NO
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Tier	Unit Shortfall
A1	0.81

- 1.1 It is proposed to extend the buildings and create new car parking on the site.
- 1.2 Ecology surveys were carried out in 2025:
 - a. Initial habitat survey on February 20th 2025.
 - b. Additional surveys on July 22nd 2025.
- 1.3 Desktop Statutory sites and priority habitats:
 - a. Important statutory sites are present within 500m of the site.

Sites of Special Scientific Interest	1 Features found - Florence Mine SSSI,
--------------------------------------	--

You should consult Natural England on the proposed development at this location.
 Send your consultation to: consultations@naturalengland.org.uk

- b. No Priority habitat present within 500m of the site.
 - c. The proposals are unlikely to impact upon any other sites or habitats.
- 1.4 Baseline Survey results:

a. Habitats

Habitat	
Urban	Developed land; sealed surface
Heathland and shrub	Bramble scrub
Urban	Vegetated garden
Urban	Introduced shrub
Grassland	Modified grassland

- i. Nineteen individual trees.

b. Hedges

Native hedgerow
Species-rich native hedgerow

- c. No watercourse.

- 1.5 Invasive species identified on site – Rosa rugosa & Cotoneaster.

1.6 Site Post Development:

Habitat	
Urban	Developed land; sealed surface
Grassland	Modified grassland

- i. Six individual trees.

1.7 Mitigation: Potential. Some discussion with Natural England should be considered – the SSSI management advises the removal of trees and scrub on site.

- a. Habitats – Nil.
- b. Hedges – Re plant new hedge.
- c. Watercourse – N/A.

1.8 Potential to create 10% Biodiversity Net Gain: Mitigation required.

- a. Habitats – Nil.
- b. Hedges – new hedge.
- c. Watercourse – N/A.

1.9 If work has not commenced on the development within eighteen months of this survey, further surveys will be necessary.

2.3 Site Location

Site	Florence Arts Centre
Post Code	CA22 2NN
Grid Reference	NY 01740 10309
National Character Area	West Cumbria Coastal Plain
Local Nature Partnership	Cumbria
Counties, Metropolitan Districts and Unitary Authorities (GB)	Cumbria County
Parishes (GB)	Egremont CP
Planning	Cumberland Council (Copeland Area)



Figure 2 – Position of the survey area using QGIS & Google
The yellow circle indicates an approximate 2km zone.

Florence Arts Centre situated within a former mining area.

Site area – 0.5ha.

2.3.1 Desktop Assessment

As per Preliminary Ecological Appraisal.

Impact Risk Zones for Sites of Special Scientific Interest

Does the proposed development match any of the descriptions? **Yes.**

You should consult Natural England on the proposed development at this location.
Send your consultation to: consultations@naturalengland.org.uk.

Designations

Land-Based Designations

Statutory – 2km

Sites of Special Scientific Interest	4x Features found - Clints Quarry - 1004531 SSSI, Florence Mine SSSI, Haile Great Wood SSSI and Black Moss SSSI
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Statutory – 500m

Sites of Special Scientific Interest	1x Feature found - Florence Mine SSSI,
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Historic non-Statutory

Registered Parks and Gardens	No Features found
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Priority Habitat Inventory

	2km	500m
Total number of parcels	49	6
Ancient Woodland	3	
Deciduous woodland	27	4
Wood-pasture and Parkland	5	
Traditional orchard	1	
Lowland raised bog	1	
Lowland fens	7	
Purple moor grass and rush pastures	1	
Good quality semi improved grassland	3	
Open Mosaic Habitats on Previously Developed Land	1	2
Total number of parcels		

Protected Species.

	None identified
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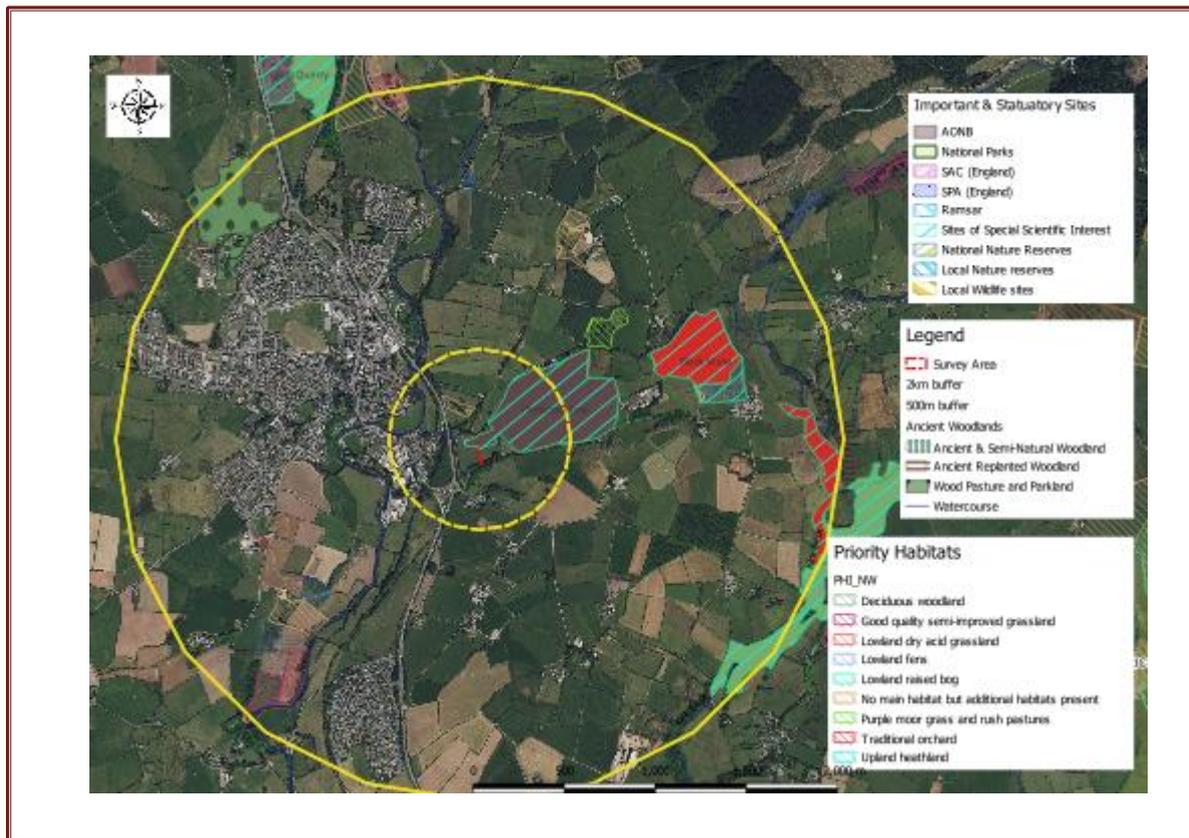


Figure 3 – Important Sites & Habitats within 2km & 500m

Onsite – The survey area is situated within the Florence Mine SSSI.

2.4 Surveyors & Timing

Surveys were undertaken in 2025:

- Ecological surveys were conducted on February 20th 2025 during daylight hours by Tricia Snaith.
- Additional surveys to cover the secondary access – July 22nd 2025.

Tricia Snaith lead surveyor holds:

WML-A34-Level 2 (Class Licence) – to survey bats using artificial light, endoscopes, hand and hand-held static nets registered number 2015-14858-CLS-CLS.

WML-CL08- To survey Great crested newts for scientific (including research) or educational purposes – Level 1 (Class Licence), which covers surveying by hand, nets, torches and aquatic funnel traps (including bottle traps) registered number 2015-13610-CLS-CLS.

MODULAR River Survey – River Condition Assessment – for The Biodiversity Metric. Successfully gained skills in: conducting MoRPh field surveys and River Type desk studies, recording data using the RCA information system, and interpreting RCA Indicators and Scores for baseline and post-intervention assessments.

Constraints Or Limitations To The Survey Or Report

The ecological status of a site can change over time, surveys can only record what is present at the time of survey.

The results of ecological surveys are time limited and checking surveys may be required to confirm that the survey remains current.

3. Survey Results

On-site Results

The former shower block, infirmary and offices for Florence Mine, now the home of Florence Arts Centre.

Situated within the wider mine complex of chipping surfaced machinery working areas. A wildlife area has been created to the west of the buildings, introduced shrubs are present on the southern edge of the car parking and bramble scrub has encroached on the eastern area. The northern boundary is the southern bankside of potential drainage from the mine. Including the secondary access to the south.

3.1 Baseline Units

An approx. 0.47ha site.

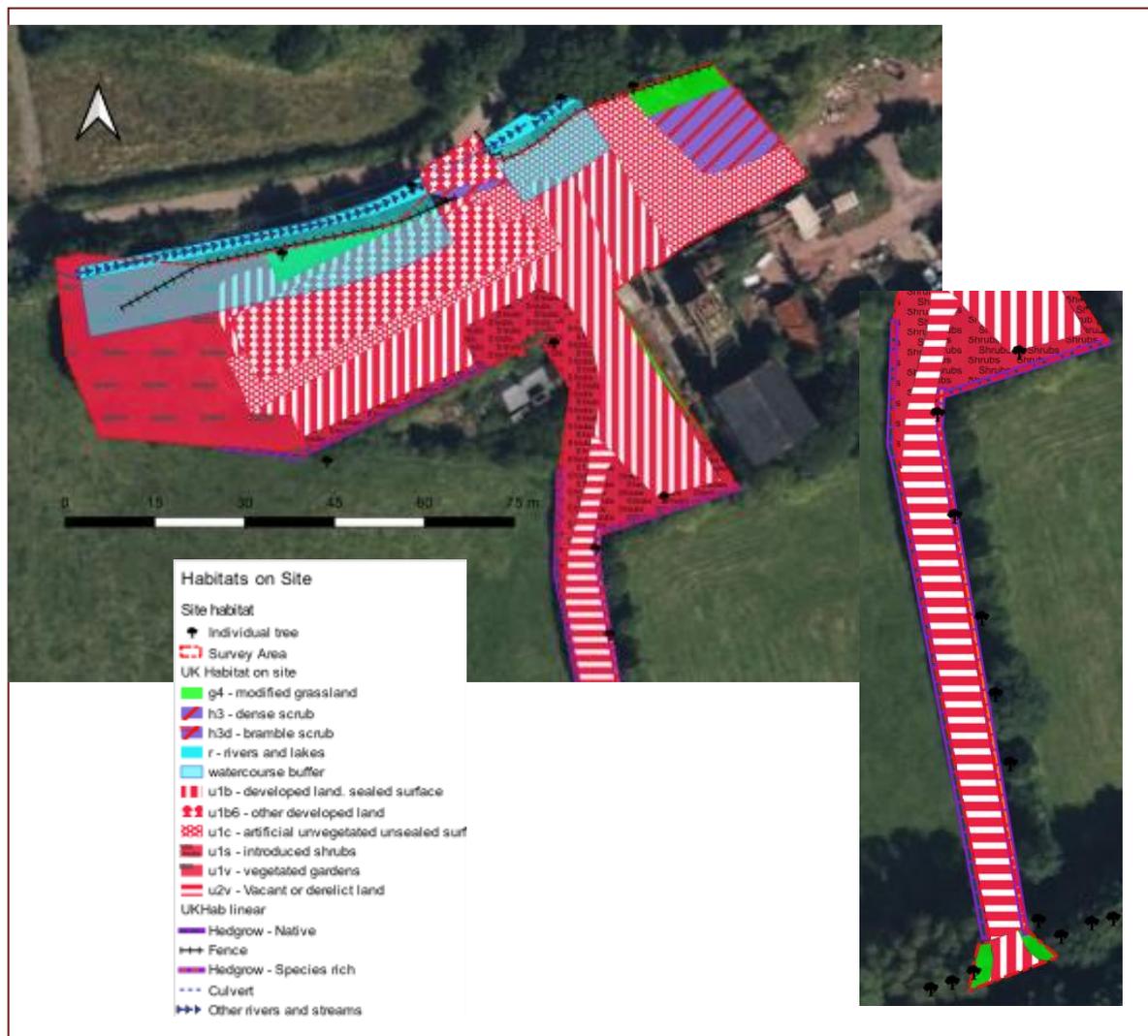


Figure 4 – UK Habitat

Habitats

- Building.
- Existing & former access, car parking.
- Introduced shrubs.
- Bramble scrub.
- Grassland.

Linear features

- Hedge - native.
- Hedge – species rich.

3.1.1 Baseline Habitat

Site area – 0.47ha predominantly unsealed surface tracks and parking associated with the former mine working, the area west has been converted into a wildlife garden, scrub encroachment is occurring on the edges.

			ha	LRE
A	main building	Developed land; sealed surface	0.062	R
A	existing building skirt	Developed land; sealed surface	0.0228	R
A	existing entrance	Developed land; sealed surface	0.0081	R
A	entrance bankside vegetation	Bramble scrub	0.0021	R
B	wildlife garden area & raised beds	Vegetated garden	0.0996	R
C	drives & car parking	Developed land; sealed surface	0.1721	L
C	south of parking Group 4&5)	Introduced shrubs	0.025	L
D	old trackway	Modified grassland	0.0044	L
D	bramble scrub	Bramble scrub	0.0095	L
E	Group 11	Introduced shrubs	0.0117	L
F	former entrance	Derelict land	0.0434	L
F	south grass verge	Modified grassland	0.0039	L
F	southern road splay	Developed land; sealed surface	0.003	L
		Total	0.4676	

1 - Habitats



Figure 5 – Habitats

Developed Land

Main Building – retained.

			ha	LRE
A	main building	Developed land; sealed surface	0.062	R
A	existing building skirt	Developed land; sealed surface	0.0228	R
A	existing entrance	Developed land; sealed surface	0.0081	R
A	entrance vegetation	bankside Bramble scrub	0.0021	R

All roads and tracks – lost and recreated.

			ha	LRE
	drives & car parking	Developed land; sealed surface	0.1721	L

B – Wildlife Garden

A wildlife area created by the local wildlife group, including raised beds of local plants. And the existing vegetation around the building No impact predicted on this area.

To be retained under the present management regime.



Figure 6 – Wildlife gardens

			ha	LRE
B	wildlife garden area & raised beds	Vegetated garden	0.0996	R

Area C – New parking

Extending the existing car parking – removing existing introduced shrubs – cotoneaster and some self-set birch.

To be excavated back to the retained building.



Figure 7 – New parking area

			ha	LRE
C	drives & car parking	Developed land; sealed surface	0.1721	L
C	south of parking Group 4&5)	Introduced shrubs	0.025	L

Area D – New parking - north

Reinstate the previous unvegetated areas, in line with the SSSI management plan, removing encroaching bramble scrub. A former trackway present – on the northern side, modified grassland.

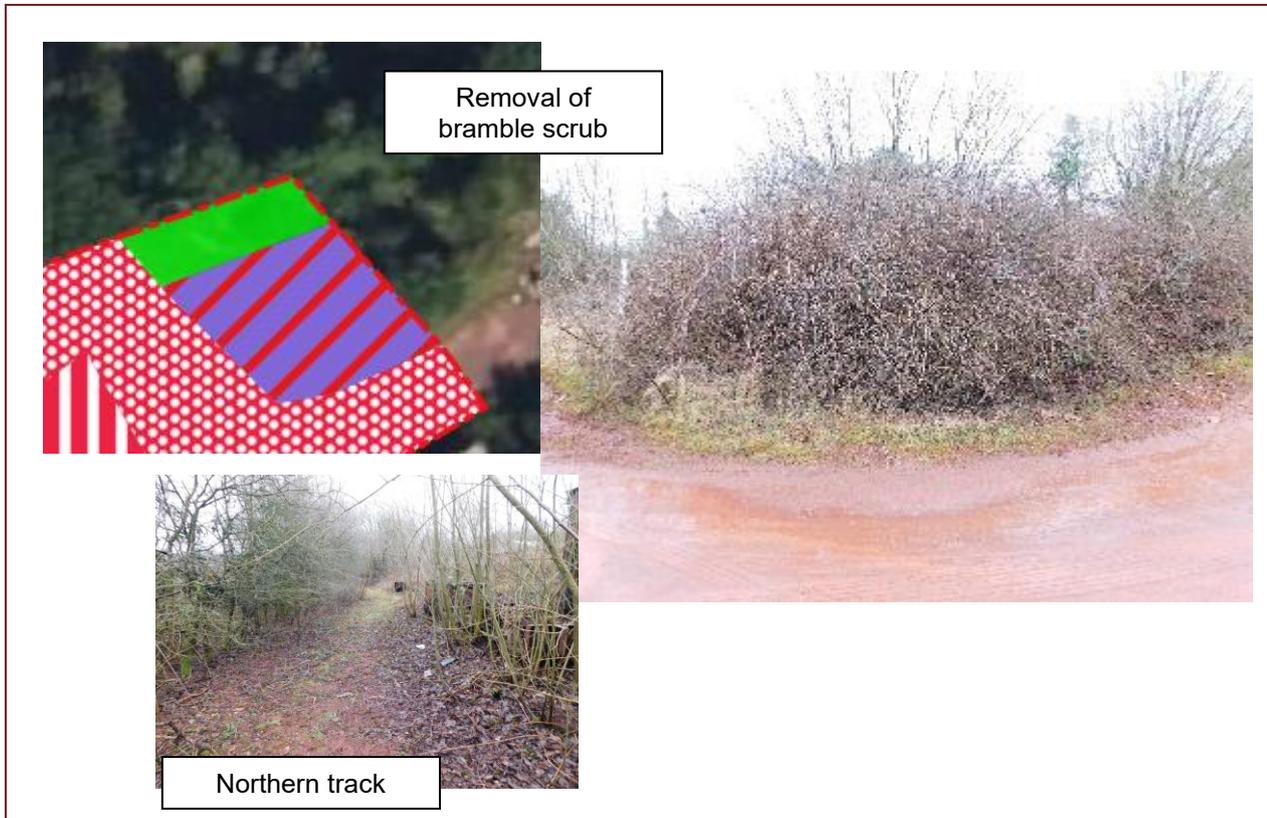


Figure 8 – New parking north

			ha	LRE
D	old trackway	Modified grassland	0.0044	L
D	bramble scrub	Bramble scrub	0.0095	L

Area E – New parking - south

Predominantly unsealed surface with a small parcel of scrub land, (AIA group 11 – Spindle & Elder).



Figure 9 – New parking south

			ha	LRE
E	Group 11	Introduced shrubs	0.0117	L

Area F – Secondary access

Reinstate the previous access as per satellite images, chipping surface still present, ephemeral vegetation present.

Assessed as bare ground.



Figure 10 – Secondary access

			ha	LRE
F	former entrance	Derelict land	0.0434	L
F	south grass verge	Modified grassland	0.0039	L
F	southern road splay	Developed land; sealed surface	0.003	L
		Total	0.4646	

Trees - baseline

AllAboutTrees Ltd identified 19 trees – a full Arboricultural Impact Assessment has been completed by AllAboutTrees Ltd. T1, T6, T9, T14, T15, T16, T18 & T19 sit outside the redline boundary and are excluded from the BNG calculations.

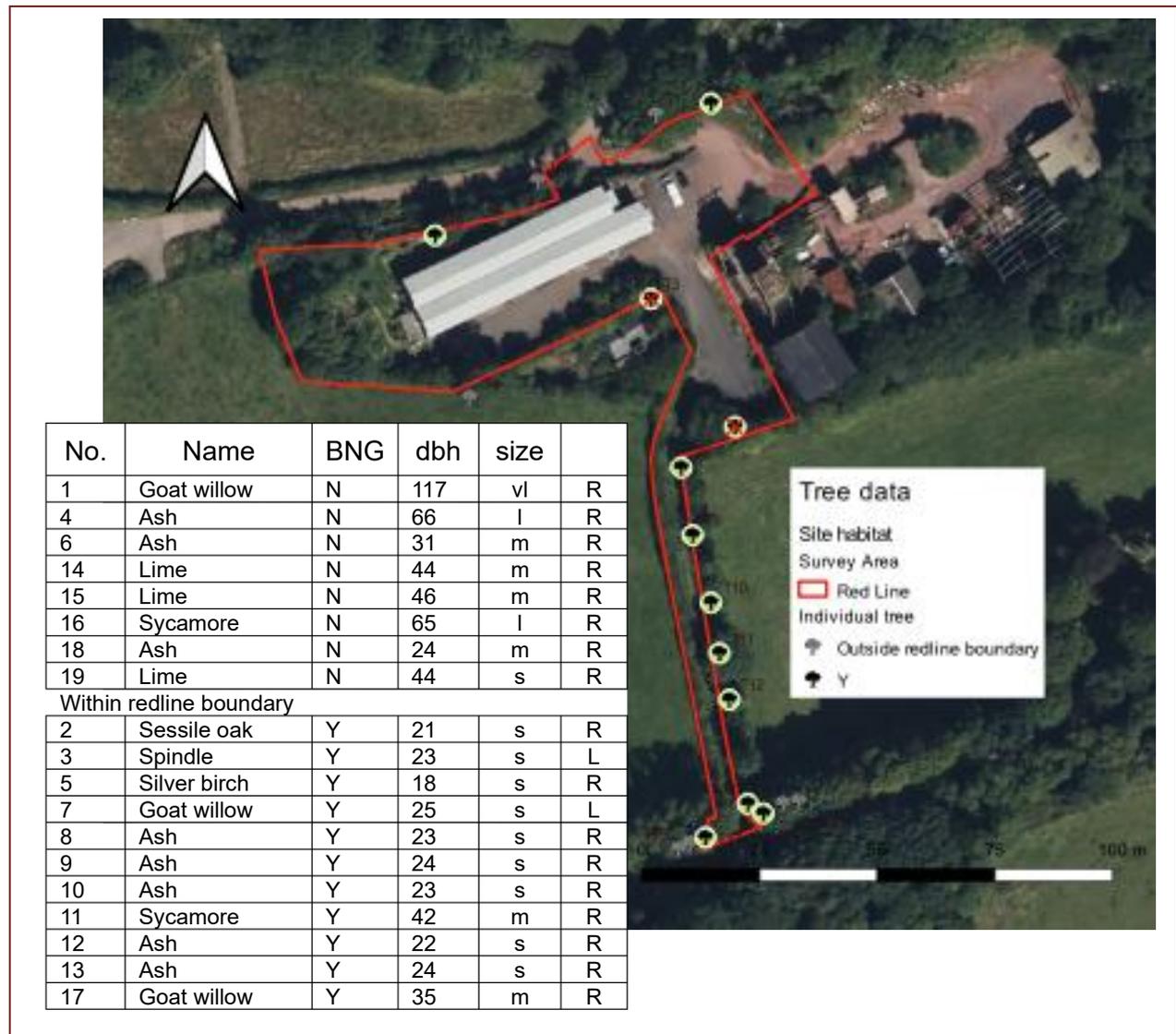


Figure 11 – Trees on site (as per AIA)

T3 and T7 to be removed to facilitate the proposals – new parking. It is advised to retain T9 as a standing monolith and retain the trees around the southern entrance, including T17.

	Small 7.5-30cm	Medium 30-60cm	Large 60-90cm	V large >90cm	
Keep	2	0	0	0	2
Remove	7	2	0	0	9
Total	9	2	0	0	11

All trees present assessed to good condition.

Size	Retain			Lost		
	Poor	Mod	Good	Poor	Mod	Good
Small			0.0366			0.0081
Medium			0.0081			
Large						
V Large						
Area			0.0447			0.0081

3.1.2 Baseline Linear

Site bound to the north by post & rail fencing. Hedges labelled as per AIA, hedge 2 outside the present redline boundary. Hedge 1, 3 & 4 to be retained. Hedges present along the secondary access.

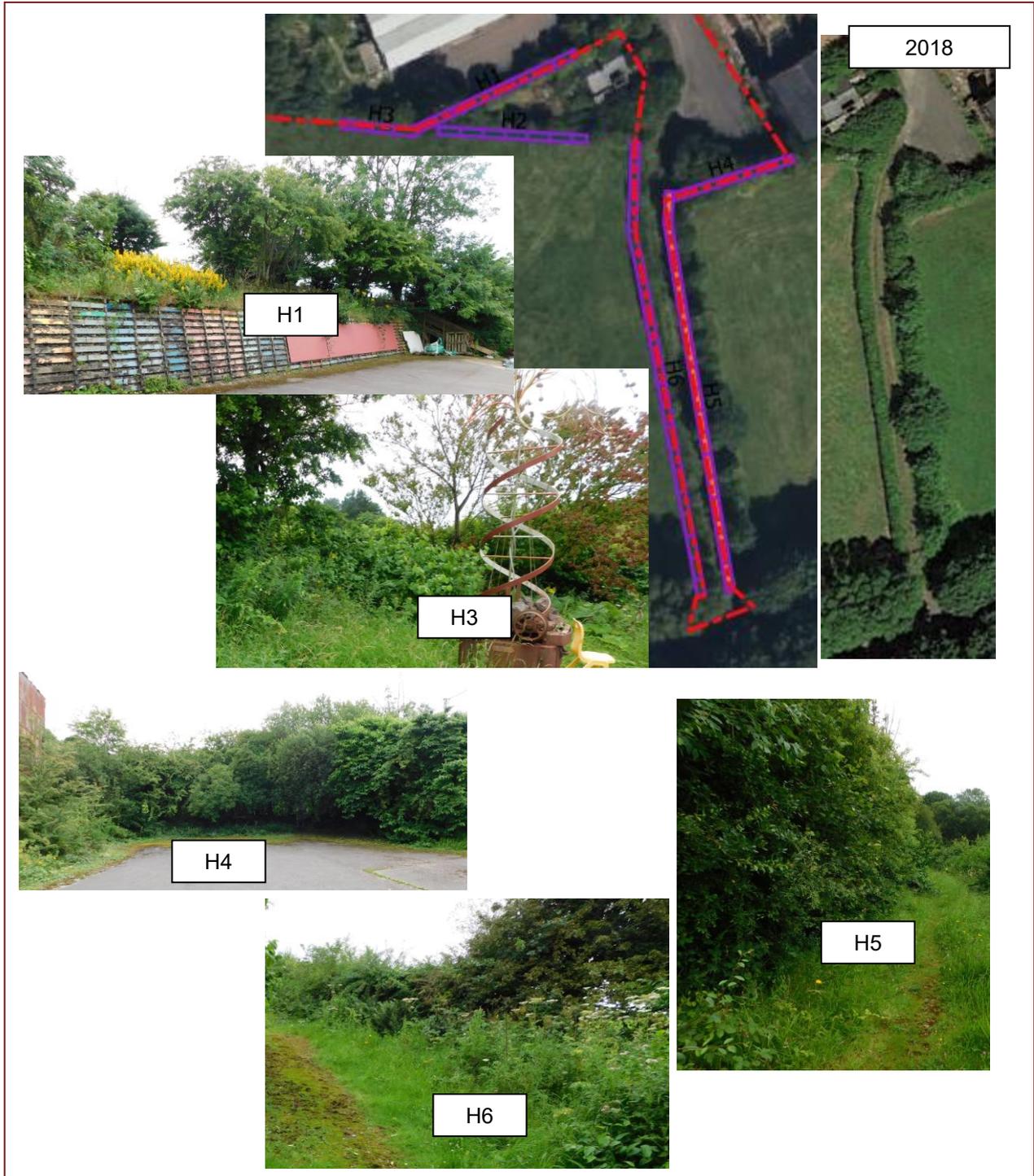


Figure 12 - Hedges

Hedge 1 & 3 to be enhanced, Hedge 4 & 5 will need management, cutting back. Hedge 6 lost to road widening.

	species				REL		
H1	Hawthorn, beech rose	Native hedgerow	0.033	Poor			E
H3	Hawthorn, spindle, holly	Native hedgerow	0.013	Poor			E
H4	Hawthorn, elder, Goat willow	Native hedgerow	0.024	Good	R		
H5	Hawthorn, occasional elder, hazel, dogwood, cotoneaster, holly	Species-rich native hedgerow	0.077	Good	R		
H6	Hawthorn, occasional elder, sycamore saplings	Native hedgerow	0.088	Good			L
			0.24				

3.1.3 Baseline Watercourse

A watercourse sits north of the site, no proposals within the 10m buffer zone to be retained no impact.

Additional Surveys

Whilst on site the following were considered:

Invasive Species

Both *Rosa Rugosa* and *Cotoneaster* is present within the car park shrub borders, boundary vegetation. *Cotoneaster horizontalis*, listed on Schedule 9 of the UK Wildlife & Countryside Act as an invasive species.

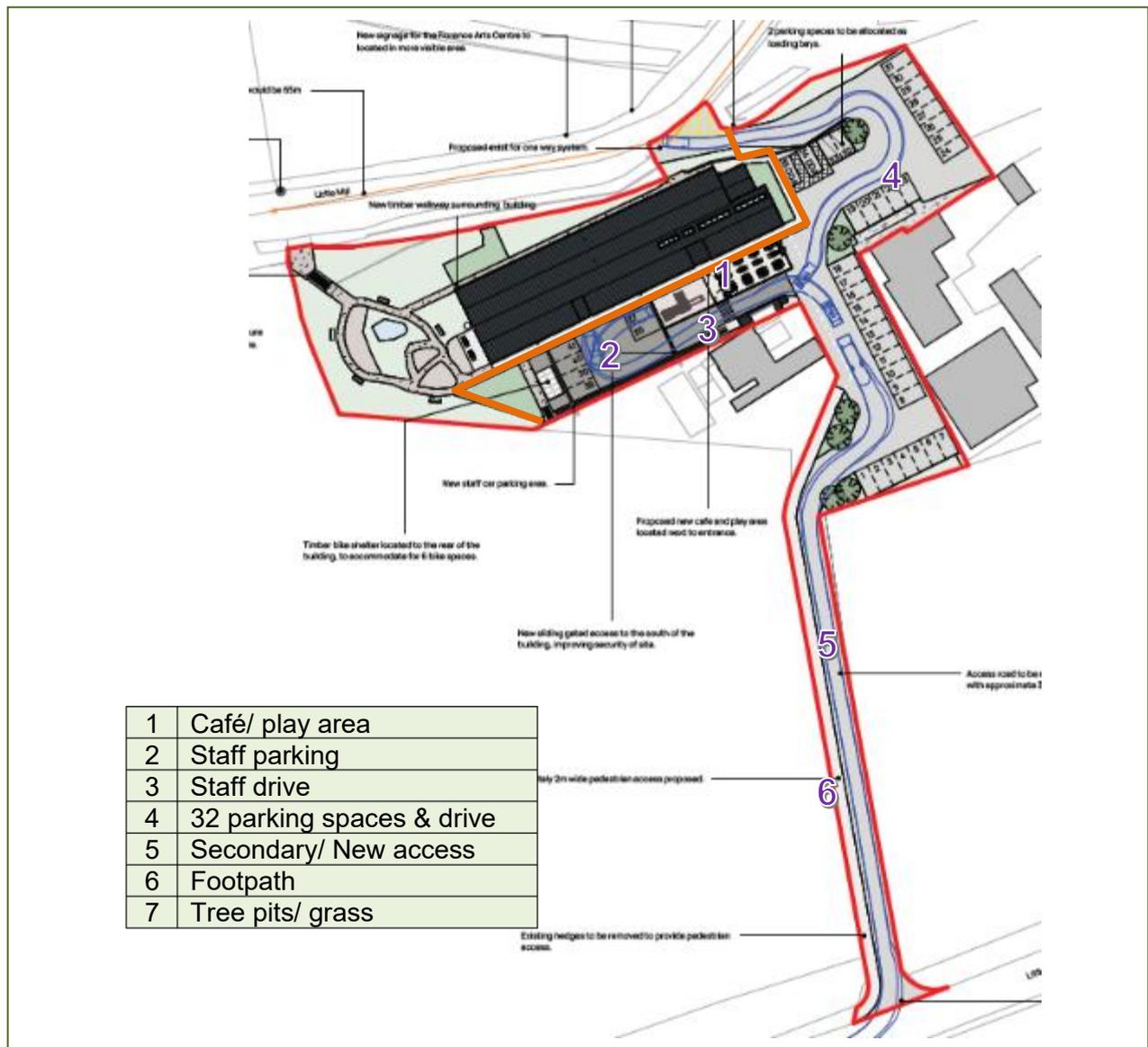
It is advised that any plants removed follow suitable invasive species removal techniques.

Potential for Protected Species

Buildings present have negligible potential of supporting bats or birds – see associated PEA and Potential for Protected Species report.

No trees with the potential to support roosting bats.

3.2 Created Units



3.2.1 Created Habitat Areas

		Habitat	UK Habitats	ha
1	Café/ play area	Urban	Sealed surface	0.014
2	Staff parking	Urban	Sealed surface	0.027
3	Staff drive	Urban	Sealed surface	0.012
4	32 parking spaces & drive	Urban	Sealed surface	0.141
5	Secondary/ New access	Urban	Sealed surface	0.033
6	Footpath	Urban	Sealed surface	0.023
7	Tree pits	Grassland	Modified	0.023
		TOTALS		0.273

Trees

Six planting pits/ grass parcels created around the parking.

Six new trees planted around the site.

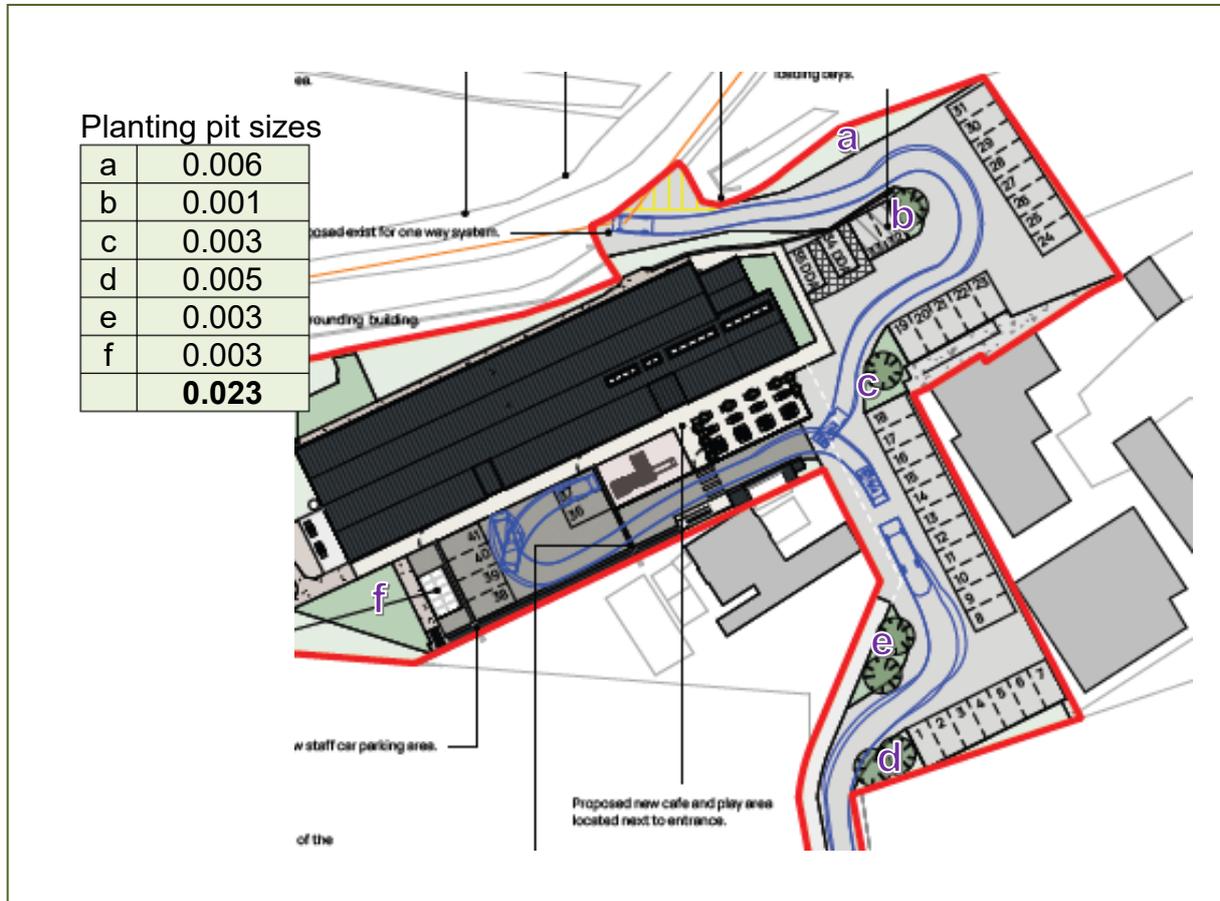


Figure 14 – Planting pits

		ha
9	Individual trees x6	0.0244

3.2.2 Created linear features

No new hedges proposed.

3.2.3 Created Watercourse

No new watercourse features proposed.

3.3 Enhanced Units

3.3.1 Enhanced Habitats

No enhanced habitats/ no area remaining to enhance.

3.3.2 Enhanced Linear features

Enhance H1 & H3 from a gappy Hawthorn hedge to a species rich hedge in moderate condition.



Figure 15 – Hedge enhancement

3.3.3 Enhanced Watercourse features

No enhanced watercourses.

4. Ecological Advice / Enhancement Potential

The proposals will result in net loss of Biodiversity units.

Option 1 – No additional mitigation. Trees to be retained.

The proposals result in a net unit shortfall – purchase credits.

	Habitats	Hedges	Watercourses
Baseline	1.06	1.68	0
Post intervention	0.77	1.39	0
Net Change	-0.30	-0.3	0
	-28%	-18%	0%
Units required	1.17	1.86	0
Unit deficit	0.4	0.47	0

Trading Rules Satisfied	NO
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Tier	Unit Shortfall
A1	0.81
A2	0.00
A3	0.00
A4	0.00
A5	0.00
H	0.93
W	0.00

Option 2 – The inclusion of advised additional mitigation.

To include replanting H6 as a species rich hedge.

	Habitats	Hedges	Watercourses
Baseline	3.98	1.69	0
Post intervention	2.86	1.86	0
Net Change	-1.23	0.17	0
	-28%	10.17%	0%
Units required	4.38	1.86	0
Unit deficit	1.52	N/A	0

Trading Rules Satisfied	NO
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Tier	Unit Shortfall
A1	0.81
A2	0.00
A3	0.00
A4	0.00
A5	0.00
H	0.00
W	0.00

Appendix 1

5.1 References

- The Wildlife and Countryside Act 1981 (as amended).
- The Conservation of Habitats and Species Regulations 2017.
- BS 42020:2013 Biodiversity Code of Practice for planning and development.
- Government Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS9).
- Natural England Standard: HRA Habitats Regulations Assessment (HRA) (NESTND026).
- Chartered Institute for Ecology and Environmental Management - Guidelines for Ecological Impact Assessment in the UK and Ireland Terrestrial, Freshwater and Coastal Second Edition January 2016.
- Chartered Institute for Ecology and Environmental Management – Guide to Ecological Surveys and Their Purpose December 2017.
- Handbook for Phase 1 habitat survey – a technique for environmental audit – England Field Unit Nature Conservancy Council 1990 revised 2007.
- CIEEM (2021). Biodiversity Net Gain Report and Audit Templates Chartered Institute of Ecology and Environmental Management, Winchester, UK.

5.2 Background

The Biodiversity Metric is a biodiversity accounting tool that can be used for the purposes of calculating biodiversity net gain.

The Biodiversity Metric can be used or specified by any development project, consenting body or landowner that needs to calculate biodiversity losses and gains for terrestrial and/or intertidal habitats. Natural England will be recommending to the Secretary of State that the Biodiversity Metric forms the basis of the statutory biodiversity metric used to underpin future mandatory biodiversity net gain as set out in the Environment Act 2021.

Appendix 2 - Raw Data

Site	Florence Arts Centre
Post Code	CA22 2NN
Grid Reference	NY 01740 10309

6.1 MAGIC – Multi Agency Geographic Information for the Countryside (including the Ancient Woodland Inventory)

Impact Risk Zones for Sites of Special Scientific Interest

Statutory Site Impacts

Nutrient Neutrality Catchments	N	No features identified
Nitrate Vulnerable Zones 2017 Designations	N	No features identified
SSSI IRZ Impact Zone	Y	One features identified

You should consult Natural England on all planning applications at this location

Send your consultation to: consultations@naturalengland.org.uk

The Impact Risk Zones for Sites of Special Scientific Interest (SSSI IRZs) indicate that at the location selected, there is potential for all proposed developments to have a harmful effect on terrestrial Sites of Special Scientific Interest (SSSIs) and those Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites that they underpin.

Discretionary Advice

The SSSI IRZs seek to guide consultations relating to the likely impacts of development on terrestrial SSSIs under Schedule 4 (w) of The Town and Country Planning (Development Management Procedure) (England) Order 2015 and section 281 of The Wildlife and Countryside Act 1981. They do not alter or remove any other statutory requirements to consult Natural England.

The SSSI IRZs only indicate Natural England's assessment of likely risk to the notified features of terrestrial SSSIs and those SACs, SPAs or Ramsar sites that they underpin. There are other sites designated for nature conservation in the coastal and marine environment that are not underpinned by terrestrial SSSIs. This includes SPAs, SACs, Ramsar sites and Marine Conservation Zones (MCZs). You should consult Natural England on any coastal or marine proposal that might impact those sites.

Where the SSSI IRZs indicate a risk is unlikely, this does not mean that there are no potential impacts on biodiversity or the wider natural environment and there may be a requirement to consult Natural England as a statutory consultee on other matters.

The following features have been found within 2km of the search area:

Designations

Land-Based Designations

Statutory – 2km

Areas of Outstanding Natural Beauty	No Features found
Local Nature Reserves	No Features found
Moorland Line	No Features found
National Nature Reserves	No Features found
National Parks	No Features found
Ramsar Sites	No Features found
Proposed Ramsar Sites	No Features found
Sites of Special Scientific Interest	4x Features found - Clints Quarry - 1004531 SSSI, Florence Mine SSSI, Haile Great Wood SSSI and Black Moss SSSI
Special Areas of Conservation	No Features found
Possible Special Areas of Conservation	No Features found
Special Protection Areas	No Features found
Possible Special Protection Areas	No Features found
Biosphere Reserves	No Features found

Statutory – 500m

Areas of Outstanding Natural Beauty	No Features found
Local Nature Reserves	No Features found
Moorland Line	No Features found
National Nature Reserves	No Features found
National Parks	No Features found
Ramsar Sites	No Features found
Proposed Ramsar Sites	No Features found
Sites of Special Scientific Interest	1x Feature found - Florence Mine SSSI,
Special Areas of Conservation	No Features found
Possible Special Areas of Conservation	No Features found
Special Protection Areas	No Features found
Possible Special Protection Areas	No Features found
Biosphere Reserves	No Features found

Historic non-Statutory

Registered Parks and Gardens	No Features found
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Priority Habitat Inventory

	2km	500m
Total number of parcels		
Ancient Woodland	3	
Deciduous woodland	27	4
Wood-pasture and Parkland	5	
Traditional orchard	1	
Lowland raised bog	1	
Lowland fens	7	
Purple moor grass and rush pastures	1	
Good quality semi improved grassland	3	
Open Mosaic Habitats on Previously Developed Land	1	2

Ancient Woodland (England)	2km IRZ	500m IRZ
Ancient & Semi-Natural Woodland	2	-
Ancient Replanted Woodland	1	-
Named woods		
Great Wood		

European Protected Species Licencing

MAGIC was used to identify the presence of Granted Protective Species Applications 2km of the survey site.

European Protected Species	County Durham
Amphibian	None identified
Bats	None identified
Cetacean	None identified
Invertebrate	None identified
Other mammal	None identified
Plant	None identified
Reptile	None identified

Great Crested Newt Records

Great Crested Newt Class Survey Licence Returns		
Number of ponds surveyed	GCN Present	
	Yes	No
None	0	0

Great Crested Newt Pond Surveys 2017-2019		
Number of ponds surveyed	GCN Present	
	Yes	No
None	-	-

Other relevant searches

Important Bird Areas	None identified
Important Plant Areas	None identified
RSPB Reserves	None identified

6.2 Assessments

Type Planning Applications	
Full Application	Y
Householder Application	
Outline Application	
Reserved Matters Application	

Major Planning Applications	
Creation of 10 or more residential units	N
Residential development on a site of 0.5ha or more	N
Non-residential development or change of use on a site of at least 1ha	N

Potential Impact On Sites Of Biodiversity Interest

Is the development within 2km of a Special Area of Conservation (SAC), Special Protection Area (SPA) or Ramsar site	N
Is the development within 500m of a Site of Special Scientific Interest (SSSI)	Y
Is the development within 100m of Ancient Woodland	N
Local Wildlife or Geological Site (LWGS) or a Local Nature Reserve (LNR)	N

6.4 Habitat Conditional Assessment Tables

The following habitats identified on site.

Condition Sheets	CS	Total No					
			Good	Fairly Good	Moderate	Fairly Poor	Poor
Grassland low distinctiveness	Y	3			3		
Heathland	N/A	2					
Hedgerow	Y	5	3				2
Individual trees	Y	19	19				
Urban	Y	1			1		

Habitat conditions can be provided on request.

6.5 BNG Matrix Screen Dumps

Primary

Florence Arts Centre		Return to results menu	
Headline Results		Scroll down for final results ▲	
On-site baseline	Area habitat units	1.06	
	Hedgerow units	1.69	
	Watercourse units	0.00	
On-site post-intervention <small>(Including habitat retention, creation & enhancement)</small>	Area habitat units	0.77	
	Hedgerow units	1.39	
	Watercourse units	0.00	
On-site net change <small>(units & percentage)</small>	Area habitat units	-0.30	-27.91%
	Hedgerow units	-0.30	-17.60%
	Watercourse units	0.00	0.00%
Off-site baseline	Area habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention <small>(Including habitat retention, creation & enhancement)</small>	Area habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change <small>(units & percentage)</small>	Area habitat units	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	Area habitat units	-0.30	
	Hedgerow units	-0.30	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	Area habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	

FINAL RESULTS				
Total net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	Area habitat units	-0.30		
	Hedgerow units	-0.30		
	Watercourse units	0.00		
Total net % change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	Area habitat units	-27.91%		
	Hedgerow units	-17.60%		
	Watercourse units	0.00%		
Trading rules satisfied?	No - Check Trading Summaries ▲			
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Area habitat units	10.00%	1.06	1.17	0.40
Hedgerow units	10.00%	1.69	1.86	0.47
Watercourse units	10.00%	0.00	0.00	0.00
Input errors/rule breaks present in metric ▲				

Appendix 3 - Biodiversity Net Gain

7.1 Biodiversity Net Gain

BNG is an approach to development. It makes sure that habitats for wildlife are left in a measurably better state than they were before the development.

In England, BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).

Developers must deliver a BNG of 10%. This means a development will result in more or better quality natural habitat than there was before development.

<https://www.gov.uk/guidance/understanding-biodiversity-net-gain>

Measuring biodiversity

For the purposes of BNG, biodiversity value is measured in standardised biodiversity units.

A habitat will contain a number of biodiversity units, depending on things like its: size, quality, location, and type.

Biodiversity units can be lost through development or generated through work to create and enhance habitats.

When considering biodiversity value, you should consult an ecologist. To:

- Measure the biodiversity value of your existing habitat.
- Advise on suitable habitat creation or enhancement for the land.

There is a statutory (official) biodiversity metric, which you must use to measure how many units: a habitat contains before development / are needed to replace the units of habitat lost and to achieve 10% BNG.

This tool applies the statutory biodiversity metric formula.

7.2 BNG Design Stage

This stage is an iterative process. The BNG Ecologist and Landscape Architect work with the project design team to follow good practice for BNG and achieve BNG that is feasible over the minimum 30-years of BNG given the post-development site conditions, aesthetics and site users and recognising that the landowner is legally required to deliver the committed outcomes within the 30-year period.

Several iterations of a biodiversity metric may be required. The iterations may comprise:

Baseline - the baseline biodiversity unit score of a site only (with no assessment of the proposed development) to identify habitats to avoid impacts, in accordance with the Biodiversity Gain Hierarchy. This can help to identify opportunities for enhancing habitats that will be retained.

Draft - (Feasibility Statement) – to determine the baseline plus potential options for the enhancement and creation of specific habitat types for BNG, in order to inform sketch scheme layouts and/or the design.

Design Stage – further to the previous assessment but with BNG recommendations by the BNG Ecologist and Landscape Architect.

Final – baseline and post development metric calculation and the associated BNG design of the final fixed design to be submitted as part of satisfying the mandatory BNG requirement.

The 'BNG design' is a design specification of habitats to be retained, enhanced and created to achieve BNG. It is the design specification that contractors follow and is often integrated within the landscape design deliverables e.g. landscape plans and drawings, planting specifications etc. The BNG design should be based on sound ecological principles, principles in the statutory biodiversity metric user guide, and should be feasible and viable for the minimum 30-year duration of BNG.

While the SBM tool can be used to help determine the biodiversity value of different habitats, it should not be used to achieve the maximum on-site biodiversity units through manipulation of habitat types at the detriment of the design of the scheme.

The HMMP is a detailed plan that describes how the land will be managed over at least 30 years to create and enhance habitats for BNG, and to manage and monitor the BNG habitats. A HMMP template is available this is not mandatory.

Planning applications subject to BNG need to submit a report and metric calculation that record the biodiversity value of the site prior to development taking place and predict what the value of the site will be after development.

7.3 BNG & Planning

Developers should submit sufficient information on BNG with a planning application that gives the LPA confidence that BNG will be achieved if planning is granted.

Good practice is to submit the following with a planning application:

- A statutory biodiversity metric calculation for the proposed development.
- On-site BNG design and HMMP (and any relevant information in the Landscape and Ecological Management Plan; LEMP).
- Details of any impacted protected sites and/or species (on-site and off-site).

- A BNG design stage report clearly setting out application of the Biodiversity Gain Hierarchy and describing any on-site significant enhancements.
- If off-site BNG provision is required as a minimum, the requirements should be modelled in biodiversity metric calculation with information on any initial discussions with off-site providers.
- A draft Biodiversity Gain Plan.

7.4 Biodiversity Gain Plan

A biodiversity gain plan is a document that shows how you will achieve BNG. In your biodiversity gain plan you must provide evidence for your BNG decisions.

You can submit the biodiversity gain plan to your local planning authority after they approve your planning application.

7.5 Habitat Management and Monitoring Plan (HMMP)

A habitat management and monitoring plan (HMMP) is a detailed plan that outlines how the land will be managed over at least 30 years to:

- Create and enhance habitats for biodiversity net gain (BNG).
- Manage and monitor the BNG.

For example, a BNG MMP plan would typically provide detailed management and maintenance information for years 1 – 5 and with broader management aims for the lifetime of the BNG commitment, e.g., the lifetime of the project impacts or 30 years):

It must set out:

- How you will maintain the habitat.
- Who is responsible for creating or enhancing the habitats.
- Who is responsible for maintenance, management and monitoring.
- Plans shall be concise, proportionate and SMART. i.e., each target set is Specific to a feature that can be Measured accurately, Reasonably achievable within the project scope and Time-bounded.
- Proposals for monitoring, including methods, frequency and timing should be included, as well as setting out the reporting procedures and options for remedial works, if needed.
- The roles, responsibilities and competency requirements of those involved in implementing the BNG MMP should be clearly stated and secured.
- Legal, financial and other resource requirements for delivery of the BNG MMP should be detailed.

Maps and drawings should be provided in spatially accurate digital drawings, e.g., using GIS to allow accurate monitoring



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