



Figure 2. The proposed layout plan for Beechy Bottom Parkland Reserve, modified from Davies Landscape Architects. Issued September 2023, drawing number 2131-DLA-DR-L-07-S02.

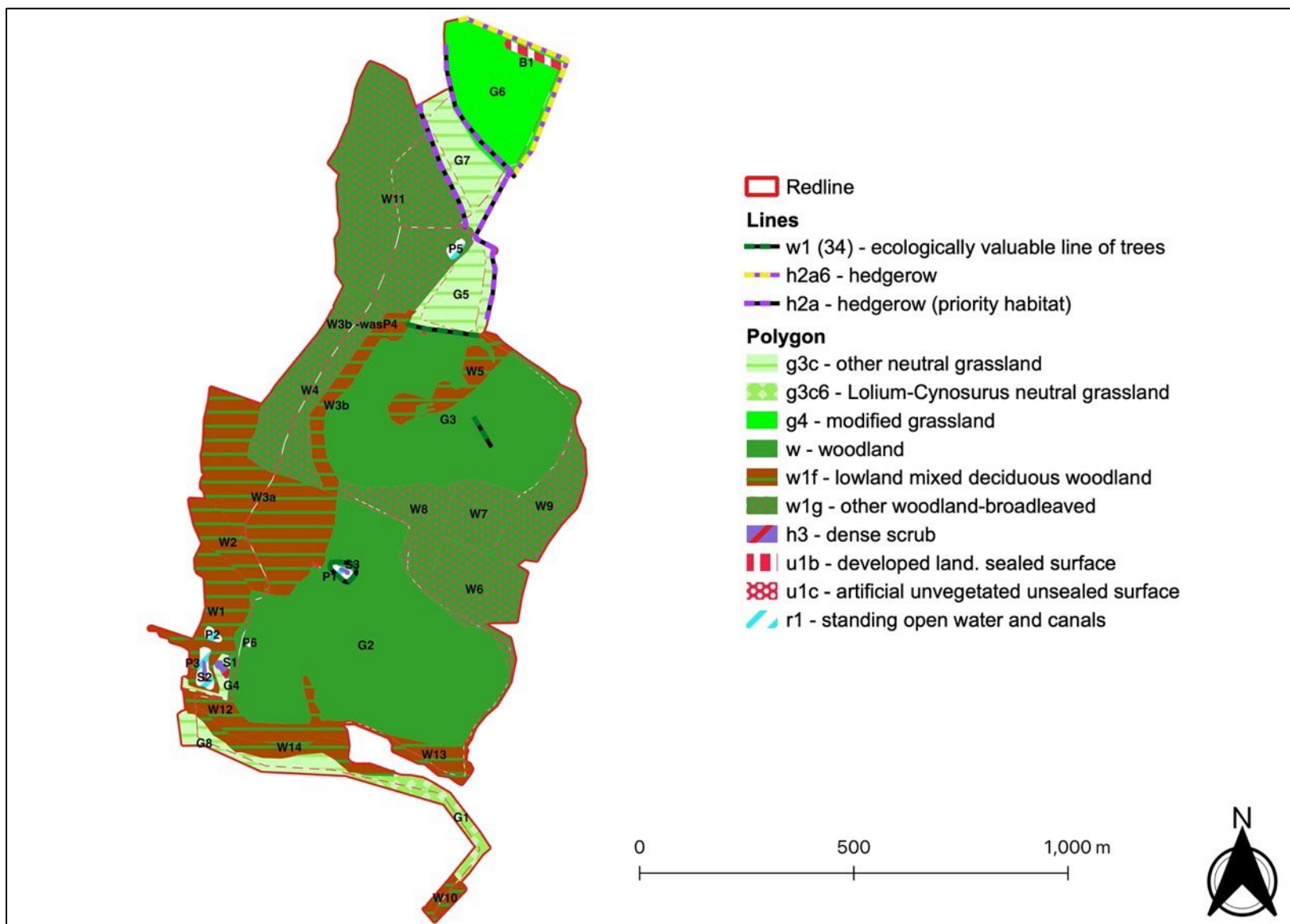


Figure 3. A UKHab map showing proposed habitats within the site. The site boundary is indicated with a red line. Produced using QGIS software, version 3.28.5 – Firenze.



1.3 Policy & Legislation

NPPF (2023)

The NPPF sets out the Government's view on how planners should balance nature conservation with development and helps ensure that Government meets its biodiversity commitments with regards to the operation of the planning system.

Paragraph 174b, states that council policies should;

- *"promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."*

Paragraph 175d, states that when determining planning applications, authorities should:

- Refuse permission *"if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for"*
- Encourage *"opportunities to incorporate biodiversity improvements in and around developments, especially where this can secure measurable net gains for biodiversity."*

Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system⁶.

In accordance with the NPPF, it is important that developments should contribute to local policies that enhance the natural environment by:

- minimising impacts on existing biodiversity and habitats and designated features
- establishing coherent ecological networks that are more resilient to current and future pressures
- providing net gains in biodiversity and habitats, wherever possible

Environment Act (2021)

The Environment Act sets a target of halting the decline in species through the inclusion of a legally binding 2030 species abundance target. Aiming to restore natural habitats and enhance biodiversity, the Act requires new developments to improve or create habitats for nature (through mechanisms such as mandatory Biodiversity Net Gain), and tackle deforestation. Going forwards, UK businesses will need to look closely at their supply chains as amongst other measures they will be prohibited from using commodities associated with wide-scale deforestation. Woodland protection measures are also strengthened through the Act.

⁶ HM Government (2005) ODPM Circular 06/05 Government Circular: *Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf.



Local Policy

Policy DP38 (Biodiversity) of the current Mid-Sussex District Plan 2014-2031 from Mid Sussex District Council⁷ notes that it will ensure development:

- “Contributes and takes opportunities to improve, **enhance, manage and restore biodiversity** and green infrastructure so there is **a net gain in biodiversity** [...];
- Protects existing biodiversity, so there is **no net loss of biodiversity**;
- Unavoidable damage to biodiversity should be **offset through enhancements** and mitigation measures.
- Minimises habitat and species fragmentation and maximises opportunities to **enhance and restore ecological corridors** to connect natural habitats and increase coherence and resilience; and
- Promotes the **restoration, management and expansion of priority habitats** in the district.”

2 METHODOLOGY

This Biodiversity Impact Calculation uses the Biodiversity Metric 4.0 Calculation Tool published by Natural England⁸. This uses the Government Biodiversity Metric developed by DEFRA (‘the Biodiversity Metric’) to calculate ‘habitat units’ and ‘hedgerow units’ by multiplying the area (ha) or lengths (km), ‘distinctiveness’ (habitat type), ‘condition’ (quality), and strategic significance (location in relation to the authority’s local strategy) of each habitat parcel.

The calculation provides a negative value to the biodiversity units where habitat is being directly lost. Where habitats are enhanced or created on-site, or off-site, the calculation gives a positive value but adds risk factors that account for uncertainty - difficulty in creating new habitats and time delays while they establish; habitats that are more difficult to restore or that will take a long time to reach a set target condition will score lower and therefore make a smaller positive contribution.

Where on-site gains are equal to or larger than the losses, the project is deemed to have neutral biodiversity impact or biodiversity ‘net gain’ respectively.

It should be noted that the Biodiversity Metric does not allow for ‘trading down’; one of the key principles in measuring biodiversity net losses or gains is that habitats of high ecological importance cannot be offset by the creation of larger areas of habitats with lower value. The Biodiversity Metric 4.0 Calculation Tool includes a ‘trading down correction’ that deducts the number of biodiversity units that are not accounted for through the creation of equivalent high distinctiveness habitats than that lost. For example, the loss of a small area of lowland meadow priority habitat (very high distinctiveness) will not be offset by a larger area of modified grassland (low distinctiveness) and will only be offset by an equivalent area of habitat of the same distinctiveness or higher.

⁷ Mid-Sussex District Council (2018) Mid-Sussex District Plan 2014-2031. Available online at: <https://www.midsussex.gov.uk/planning-building/mid-sussex-district-plan/>.

⁸ Natural England (2023) The Biodiversity Metric 4.0 – Calculation Tool. Available online at: <http://publications.naturalengland.org.uk/publication/6049804846366720>



2.1 Data Sources

This calculation uses the most up to date survey information using botanical data and specific condition assessments gathered on 20th and 21st July, 19th and 22nd September and 4th October 2023. The areas of each habitat category were measured using GIS mapping tools (QGIS). Condition assessments were made in accordance with the condition assessment sheets within The Biodiversity Metric 4.0 Technical Annex 1⁹. Applying the precautionary principle, a presumption for the higher condition was used where there was any uncertainty in the condition of existing habitats.

Aerial imagery of the site was overlaid by the proposed habitat creation plan to obtain the areas of the proposed habitats to be created under the Habitat & Ecological Restoration Management Plan and parkland character plan (see Figure 2). The Biodiversity Metric 4.0 uses a separate calculator spreadsheet for linear features. This works under the same principles but replaces areas of habitat with linear length of a feature. The hedgerow units generated for linear features are not equivalent or interchangeable with biodiversity calculations for areas of habitat.

The Biodiversity Metric 4.0 uses a separate calculator spreadsheet for linear features. This works under the same principles as above but replaces areas of habitat with linear length of a feature. The hedgerow units generated for linear features are not equivalent or interchangeable with biodiversity calculations for areas of habitat.

3 RESULTS

3.1.1 Existing Habitats Assessment

A summary of habitats and condition assessments are provided in Table 1 and Table 2. Full results of condition assessments for habitats which require it (using the Biodiversity Metric 4.0 condition assessment pro-forma) are provided in Appendix 1.

Overall, the on-site calculated baseline is 978.94 habitat units and 23.76 hedgerow units.

Table 1. Existing area habitat conditions for Beechy Bottom Parkland Reserve.

Area Habitats			Condition Assessments
Habitat Type in Biodiversity Metric and UK Habitat (UKHab) Classification Code	Location Reference	Area (ha)	
Grassland – bracken (g1c)	Area B1	0.12	N/A
Urban – artificial unvegetated, unsealed surface (u1c)	Unvegetated pathway	0.21	N/A
Urban – developed land; sealed surface (u1b)	All buildings and sealed tarmac	0.03	N/A
Heathland and shrub – blackthorn scrub (h3a)	Scrub S1	0.09	Good
Heathland and shrub – mixed scrub (h3h)	Scrub S2	0.05	Moderate
	Scrub S3	0.03	Good

⁹ Natural England (2023) *Biodiversity Metric 4.0 – Technical Annex 1 – Condition Assessment Sheets and Methodology*. Available online at: <http://publications.naturalengland.org.uk/publication/6049804846366720>



Woodland and forest – wood-pasture and parkland	Field G2	21.93	Moderate
	Field G3	15.56	Poor
Grassland – other neutral grassland (g3c)	Field G1	1.24	Moderate
	Field G4	0.26	Good
Grassland – modified grassland (g4)	Field G5	2.66	Moderate
	Field G6	6.27	Poor
	Field G7	2.88	Poor
	Field G8	1.46	Poor
Lakes – ponds (non-priority habitat) (r1)	Pond 1	0.1	Moderate
	Pond 2	0.1	Poor
	Pond 3	0.24	Poor
	Pond 5	0.12	Poor
	Pond 6	0.02	Poor
Woodland and forest – lowland mixed deciduous woodland (w1f)	Woodland 1	2.6	Poor
	Woodland 3a	7.69	Poor
	Woodland 3b	1.87	Good
	Woodland 5	1.68	Moderate
	Woodland 10	0.44	Moderate
	Woodland 12	2.07	Moderate
	Woodland 13	1.16	Moderate
	Woodland 14	1.48	Moderate
Woodland and forest – other woodland; broadleaved (w1g)	Woodland 2	1.58	Moderate
	Woodland 4	5.32	Poor
	Woodland 6	3.82	Moderate
	Woodland 7	2.08	Moderate
	Woodland 8	2.75	Poor
	Woodland 9	3.06	Poor
	Woodland 11	12.36	Poor

**Table 2.** Existing linear habitat conditions for Beechy Bottom Parkland Reserve.

Linear Habitats			Condition Assessments
Habitat Type in Biodiversity Metric and UK Habitat (UKHab) Classification Code	Location Reference	Length (km)	
Native hedgerow (h2a6)	Hedgerow H1	0.57	Poor
Species-rich native hedgerow with trees (h2a5 (11))	Hedgerow H2	0.35	Good
	Hedgerow H3	0.3	Moderate
	Hedgerow H4	0.39	Good
	Treeline TL1	0.17	Good
	Treeline TL2	0.07	Moderate

3.1.2 Habitat Losses and Gains

3.1.2.1 Area Habitat Units

It is estimated that the proposed habitat restoration plan at this site will result in the loss of:

- 0.12ha of g1c bracken;
- 0.21ha of u1c artificial unvegetated, unsealed surface;
- 0.01ha of u1b developed land; sealed surface;
- 0.09ha of g3c other neutral grassland - good condition;
- 0.29ha of g4 modified grassland - poor condition;
- 0.05ha of w1f lowland mixed deciduous woodland - poor condition;
- 0.11ha of w1f lowland mixed deciduous woodland - moderate condition;
- 0.23ha of w1g other woodland; broadleaved - poor condition;
- 0.06ha of w1g other woodland; broadleaved - moderate condition;
- 0.04km of h2a5 (11) species-rich native hedgerow with trees - good condition;
- 0.01km of h2a5 (11) species-rich native hedgerow with trees - moderate condition.

It is estimated that the proposed habitat restoration plan at this site will retain:

- 0.02ha of u1b developed land; sealed surface;
- 0.09ha of h3a blackthorn scrub – good condition;
- 0.05ha of h3h mixed scrub – moderate condition;
- 0.03ha of h3h mixed scrub – moderate condition;
- 1.41ha of g3c other neutral grassland – good condition;
- 6.22ha of g4 modified grassland – poor condition;
- 0.13ha of r1 (41) pond (non-priority habitat) – moderate condition;
- 1.87ha of lowland mixed deciduous woodland – good condition;
- 4.14ha of lowland mixed deciduous woodland – moderate condition;
- 3.77ha of other woodland; broadleaved – moderate condition;

It is estimated that the proposed habitat restoration plan at this site will enhance:

- 21.85ha of w (26) wood-pasture and parkland in moderate condition to good condition;
- 15.51ha of w (26) wood-pasture and parkland in poor condition to good condition;
- 2.58ha of g4 modified grassland in moderate condition to g3c other neutral grassland in moderate condition;



- 4.18ha of g4 modified grassland in poor condition to g3c other neutral grassland in moderate condition;
- 0.36ha of r1 (41) ponds (non-priority habitat) in poor condition to moderate condition;
- 10.24ha of w1f lowland mixed deciduous woodland in poor condition to moderate condition;
- 23.26ha of w1g other woodland; broadleaved in poor condition to moderate condition;
- 3.65ha of w1g other woodland; broadleaved in moderate condition to good condition;
- 2.58ha of w1f lowland mixed deciduous woodland in moderate condition to good condition;

Post-intervention, it is estimated that the following habitats will be created:

- 0.75ha of u1b developed land; sealed surface;
- 0.43ha of u1c artificial unvegetated, unsealed surface;
- 0.1832ha of urban trees (five individuals of medium size) – moderate condition.

The above created habitats are estimated with the assumptions that the footpaths will be formed of 1.5m areas of unsealed materials and that the cycle paths will be formed of a more formalised 2m wide routes.

The following habitat losses are not included within the calculations, as they constitute a loss of irreplaceable habitat area:

- 0.08ha of w (26) wood-pasture and parkland in moderate condition (Grassland 2);
- 0.05ha of w (26) wood-pasture and parkland in poor condition (Grassland 3).

As irreplaceable habitats cannot be accounted for in the metric and in accordance with Natural England advice, bespoke compensation to address these specific losses will need to be agreed with the local planning authority.

3.1.2.2 Linear Habitat Units

It is estimated that the proposed habitat restoration plan at this site will result in the loss of:

- 0.04km of h2a5 (11) species-rich native hedgerow with trees – good condition;
- 0.01km of h2a5 (11) species-rich native hedgerow with trees – moderate condition.

It is estimated that the proposed habitat restoration plan at this site will retain:

- 0.57km of h2a6 native hedgerow – poor condition;
- 0.7km of h2a5 (11) species-rich native hedgerow with trees – good condition;
- 0.29km of h2a5 (11) species-rich native hedgerow with trees – moderate condition;
- 0.17km of w1 (34) ecologically valuable line of trees – good condition.
- 0.07km of w1 (34) ecologically valuable line of trees – moderate condition.

It is estimated that the proposed habitat restoration plan at this site will enhance:

- 0.57km of h2a6 native hedgerow in poor condition to moderate condition



4 FINAL RESULTS

The overall results of the calculations are presented in Table 3. Please refer to the Biodiversity Metric 4.0 – Calculation Tool supplied with this document (submitted separately) for full details of the calculation.

Table 3. Headline results of the Biodiversity Impact Calculation for the proposed habitat restoration at Beechy Bottom Parkland Reserve.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	177.39
	Hedgerow units	0.21
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	18.04%
	Hedgerow units	0.89%
	Watercourse units	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

Table 4. Trading summary linear habitat results of the Biodiversity Impact Calculation for the proposed habitat restoration at Beechy Bottom Parkland Reserve.

High Distinctiveness				High Distinctiveness Summary	
Habitat group	On-site unit change	Off-site unit change	Project wide unit change		
Species-rich native hedgerow with trees	-0.97	0.00	-0.97	High Distinctiveness Units available to offset lower distinctiveness deficit	0.00
Species-rich native hedgerow - associated with bank or ditch	0.00	0.00	0.00	High Distinctiveness Deficit to be offset by trading up	-0.97
Native hedgerow with trees - associated with bank or ditch	0.00	0.00	0.00	Higher Distinctiveness surplus units minus any high distinctiveness deficit	-0.97
	-0.97	0.00	-0.97		

4.1 Conclusions

The Biodiversity Impact Calculation, using the Biodiversity Metric 4.0, has demonstrated that the proposed scheme will result in a likely net gain of **177.39 habitat units (18.04%)**.

The linear feature calculation for the proposed scheme results in a likely net gain of **0.21 hedgerow units (0.89%)**.

The current scheme does not satisfy the trading rules within the Biodiversity Metric 4.0 for linear habitats. The calculation has identified a 0.97 unit deficit for 'High Distinctiveness' linear habitat.

It is likely that the proposed net gains will need to be secured by a conservation covenant or other suitable agreement, which commit future management of the site to the details provided within the Habitat & Ecological Restoration Management Plan and a suitable monitoring programme as appropriate will need to be agreed to ensure the delivery of the target habitat conditions.

Should you need any further advice on the information provided above, please do not hesitate to contact The Ecology Co-op.



APPENDIX 1 – Habitat Condition Assessment Pro-formas

CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS													
Date	22/09/2023			Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)					Baseline				
Surveyor name	Libby Morris			Unique polygon reference(s)					G1				
Project / development name	Beechy Bottom Reserve			Metric 4.0 habitat type					Other neutral grassland				
Onsite or offsite?	Onsite			Condition sheet used					Grassland – med, high and v. high				
Habitat description													
Dominated by sweet vernal <i>Anthoxanthum odoratum</i> with the following other species recorded; perennial rye <i>Lolium perenne</i>, Yorkshire fog <i>Holcus lanatus</i>, common bent <i>Agrostis capillaris</i>, annual ryegrass <i>Lolium multiflorum</i>, cocksfoot grass <i>Dactylis glomerata</i>, red fescue <i>Festuca rubra</i>, germander speedwell <i>Veronica chamaedrys</i>, meadow buttercup <i>Ranunculus acris</i>, creeping buttercup <i>R. repens</i>, clustered dock <i>Rumex conglomeratus</i>, nodding thistle <i>Carduus nutans</i>, creeping thistle <i>Cirsium arvense</i>, common knapweed <i>Centaurea nigra</i>, dandelion <i>Taraxacum officinale</i> agg., red clover <i>Trifolium pratense</i>, cut-leaved cranesbill <i>Geranium dissectum</i>, lesser trefoil <i>Trifolium dubium</i>, hairy tare <i>Vicia hirsuta</i>, white clover <i>Trifolium repens</i>, broad-leaved dock <i>Rumex obtusifolius</i>, ragwort <i>Jacobaea vulgaris</i>, cuckoo flower <i>Cardamine pratensis</i>, autumn hawkbit <i>Scorzoneroidea autumnalis</i>, common mouse-ear <i>Cerastium fontanum</i>, common fleabane <i>Pulicaria dysenterica</i>, tufted vetch <i>Vicia cracca</i>, common sorrel <i>Rumex acetosa</i> and ground ivy <i>Glechoma hederacea</i>.													
													
Allocate pass 'P' or fail 'F'. For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.													
Criterion	A	B	C	D	E	F							TOTAL
Result	Y	Y	Y	Y	Y	Y							7/7
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	Y – passed criteria A and F						Condition (Good/Moderate/Poor):			Good			



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	22/09/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris	Unique polygon reference(s)	G4
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Other neutral grassland
Onsite or offsite?	Onsite	Condition sheet used	Grassland – med, high and v. high

Habitat description

Perennial rye, crested dog's-tail *Cynosurus cristatus*, Yorkshire fog, common bent, sweet vernal grass, annual rye grass and cock's-foot grasses, soft rush *Juncus effusus* and pendulous sedge *Carex pendula*. Forbs recorded included creeping buttercup, creeping thistle, common knapweed, broad-leaved dock, birds-foot trefoil, meadow buttercup, creeping cinquefoil, white clover, red clover, imperforate St John's-wort *Hypericum maculatum*, cow parsley *Anthriscus sylvestris*, ground ivy, common nettle *Urtica dioica*, common hogweed *Heracleum sphondylium*, spear thistle *Cirsium vulgare* and common sorrel.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F							TOTAL
Result	Y	Y	Y	N	Y	Y							6/7
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	Y – passed criteria A and F					Condition (Good/Moderate/Poor):		Good					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline											
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	G5											
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Modified grassland											
Onsite or offsite?	Onsite	Condition sheet used	Grassland - low											
Habitat description														
Perennial rye-dominated grassland with rough meadow-grass <i>Poa trivialis</i>, meadow foxtail <i>Alopecurus pratensis</i>, annual ryegrass, cocks-foot and common bent also recorded. Forbs identified included common mouse-ear, marsh cudweed <i>Gnaphalium uliginosum</i>, creeping buttercup, common ragwort, greater plantain <i>Plantago major</i>, broad-leaved dock, clustered dock <i>Rumex conglomeratus</i>, creeping thistle, white clover, scentless mayweed <i>Tripleurospermum inodorum</i> and bristly oxtongue <i>Helminthotheca echioides</i>.														
 														
Allocate pass 'P' or fail 'F'. For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.														
Criterion	A	B	C	D	E	F	G							TOTAL
Result	N	Y	Y	Y	Y	Y	Y							6/7
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	Y – failed criterion A						Condition (Good/Moderate/Poor):		Moderate					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline											
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	G6											
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Modified grassland											
Onsite or offsite?	Onsite	Condition sheet used	Grassland - low											
Habitat description														
Shortly-mown grass sports pitch of solely perennial ryegrass and annual ryegrass.														
														
Allocate pass 'P' or fail 'F'.														
For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.														
Criterion	A	B	C	D	E	F	G							TOTAL
Result	N	N	N	N	N	Y	Y							2/7
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	Y – failed criterion A						Condition (Good/Moderate/Poor):		Poor					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	G7
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Modified grassland
Onsite or offsite?	Onsite	Condition sheet used	Grassland - low

Habitat description

Former arable land reseeded within perennial ryegrass and dominated by this and creeping buttercup. Occasional Yorkshire fog detected as well as annual ryegrass and common bent. Forbs identified included Shepherd's purse *Capsella bursa-pastoris*, doves-foot cranesbill *Geranium molle*, bristly oxtongue, prickly sow-thistle *Sonchus asper*, common ragwort, nettle, daisy *Bellis perennis*, fleabane, smooth cat's-ear *Hypochaeris glabra*, common groundsel *Senecio vulgaris* and germander speedwell.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G							TOTAL
Result	N	Y	N	Y	N	Y	Y							4/7
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	Y – failed criterion A						Condition (Good/Moderate/Poor):		Poor					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	G8
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Modified grassland
Onsite or offsite?	Onsite	Condition sheet used	Grassland - low

Habitat description

Field of perennial ryegrass and annual ryegrass with creeping buttercup, birds-foot trefoil *Lotus corniculatus* and creeping thistle.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G							TOTAL
Result	N	Y	N	N	N	Y	Y							3/7
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	Y – failed criterion A						Condition (Good/Moderate/Poor):	Poor						



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	19/09/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Dan Bennett & Rozel Hopkins	Unique polygon reference(s)	G2
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Wood-pasture and parkland
Onsite or offsite?	Offsite – using onsite data and available resources from MAGIC and OS mapping	Condition sheet used	Wood-pasture and parkland

Habitat description

Area of managed grassland with average sward height of 10cm. Dominated by grasses with an average 5 species/m² of abundant sweet vernal, frequent meadow foxtail, Yorkshire fog and red fescue and rare cocksfoot and common bent. Forbs identified included germander speedwell, hairy tare, lesser stitchwort, broad-leaved dock, meadow buttercup, common vetch *Vicia sativa* and silver weed *Potentilla anserina*. There are pockets of veteran sweet chestnut *Castanea sativa* trees scattered across the grassland and various mature native trees scattered in the grassland. Small patches of mixed scrub are located on the southern boundary of the woodland.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H						TOTAL
Result	Y	Y	N	N	Y	Y	N	Y						5/8
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	Y – passed criterion A						Condition (Good/Moderate/Poor):		Moderate					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	19/09/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Dan Bennett & Rozel Hopkins	Unique polygon reference(s)	G3
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Wood-pasture and parkland
Onsite or offsite?	Offsite – using onsite data and available resources from MAGIC and OS mapping	Condition sheet used	Wood-pasture and parkland

Habitat description

Area of managed grassland with average sward height of 10cm. Dominated by grasses with an average 5 species per m² of abundant sweet vernal, frequent meadow foxtail, Yorkshire fog and red fescue and rare cocksfoot and common bent. Forbs identified included germander speedwell, hairy tare, lesser stitchwort, broad-leaved dock, meadow buttercup, common vetch and silver weed. There are pockets of veteran sweet chestnut trees scattered across the grassland and various mature native trees scattered in the grassland. Small patches of mixed scrub are located on the southern boundary of the woodland.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H						TOTAL
Result	N	N	N	N	Y	Y	N	Y						3/8
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	Y – failed criterion A						Condition (Good/Moderate/Poor):		Poor					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	22/09/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris	Unique polygon reference(s)	S1
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Blackthorn scrub
Onsite or offsite?	Onsite	Condition sheet used	Scrub

Habitat description

Blackthorn *Prunus spinosa* scrub located in amongst Grassland 4 (G4). Frequent silver birch *Betula pendula*, occasional bramble *Rubus fruticosus* and holly *Ilex aquifolium* and rare hawthorn *Crataegus monogyna* also seen.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E									TOTAL
Result	Y	Y	Y	Y	Y									5/5
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N					Condition (Good/Moderate/Poor):			Good					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	22/09/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris	Unique polygon reference(s)	S2
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Mixed scrub
Onsite or offsite?	Onsite	Condition sheet used	Scrub

Habitat description

Scrub located in the centre of Pond 3 (P3) comprising of silver birch, hazel *Corylus avellana*, buddleia *Buddleja davidii*, blackthorn, pendulous sedge, dog rose *Rosa canina*, bramble and horse chestnut. Inaccessible due to pond but viewed with binoculars.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E									TOTAL
Result	Y	Y	N	Y	Y									4/5
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N					Condition (Good/Moderate/Poor):			Moderate					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	22/09/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris	Unique polygon reference(s)	S3
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Mixed scrub
Onsite or offsite?	Onsite	Condition sheet used	Scrub

Habitat description

Scrub located in the centre of Pond 1 (P1) comprising of downy birch *Betula pubescens*, goat willow *Salix caprea*, another willow *Salix* species, pendulous sedge, bramble and hawthorn. Some willows are mature trees. Inaccessible due to pond but viewed with binoculars.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E									TOTAL
Result	Y	Y	Y	Y	Y									5/5
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N					Condition (Good/Moderate/Poor):			Good					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	20/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	P1
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Pond (non-priority habitat)
Onsite or offsite?	Onsite	Condition sheet used	Pond

Habitat description

Pond bordered by mature tree lines with scrub in the centre.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I					TOTAL
Result	N	Y	Y	Y	Y	Y	Y	N	N					6/9
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	None						Condition (Good/Moderate/Poor):		Moderate					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	20/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	P2
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Pond (non-priority habitat)
Onsite or offsite?	Onsite	Condition sheet used	Pond

Habitat description

Woodland fishing pond with scrub in the centre, artificially connected to Pond 3 and stream.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G							TOTAL
Result	N	Y	Y	N	N	N	N							2/7
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	None						Condition (Good/Moderate/Poor):		Poor					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	20/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	P3
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Pond (non-priority habitat)
Onsite or offsite?	Onsite	Condition sheet used	Pond

Habitat description

Woodland fishing pond with scrub in the centre, artificially connected to Pond 2 and stream.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G							TOTAL
Result	N	Y	Y	N	N	N	N							2/7
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	None						Condition (Good/Moderate/Poor):		Poor					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	22/09/2023 & 04/10/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris	Unique polygon reference(s)	P5
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Pond (non-priority habitat)
Onsite or offsite?	Onsite	Condition sheet used	Pond

Habitat description

Woodland pond



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G							TOTAL
Result	N	Y	N	Y	Y	Y	Y							3/7
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	None						Condition (Good/Moderate/Poor):				Moderate			



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	22/09/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris	Unique polygon reference(s)	P6
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Pond (non-priority habitat)
Onsite or offsite?	Onsite	Condition sheet used	Pond

Habitat description

Pond bordered by mature scrub of silver birch and hawthorn scrub with bramble, dog rose and beech *Fagus sylvatica* also recorded. Lots of dead and dying silver birch recorded.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I					TOTAL
Result	N	Y	N	Y	Y	Y	Y	N	N					5/9
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	None						Condition (Good/Moderate/Poor):				Poor			



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W1
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Lowland mixed deciduous woodland
Onsite or offsite?	Onsite	Condition sheet used	Woodland

Habitat description

Mixed broadleaved woodland with dense ground layer, with abundant common nettle. Tree species include ash *Fraxinus excelsior* (most appear to have ash dieback), beech, hazel, oak *Quercus robur*, elder *Sambucus nigra*, hawthorn, blackthorn, alder *Alnus glutinosa*, holly, field maple *Acer campestre* and yew *Taxus baccata*. Within the northern extent there is cherry laurel *Prunus laurocerasus* and *Rhododendron ponticum*. Ground flora includes abundant common nettle, frequent cow parsley, occasional wood meadow-grass *Poa nemoralis*, cleavers *Galium aparine* and rare false brome *Brachypodium sylvaticum*, greater stitchwort *Stellaria holostea*, wood speedwell *Veronica montana*, wood sedge *Carex sylvatica*, primrose *Primula vulgaris*, remote sedge *Carex remota*, wood anemone *Anemone nemorosa*, bugle *Ajuga reptans*, wood avens *Geum urbanum*, broad buckler *Dryopteris dilatata*, lesser celandine *Ficaria verna*, ground ivy, male fern *Dryopteris filix-mas*, red campion *Silene dioica*, rough meadow grass, hedge woundwort *Stachys sylvatica*, lady fern *Athyrium filix-femina*, dog's mercury *Mercurialis perennis*, pendulous sedge, opposite-leaved golden-saxifrage *Chrysosplenium oppositifolium*, enchanters nightshade *Circaea lutetiana* and hairy wood rush *Luzula acuminata*.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	2	2	1	3	3	2	2	2	2	2	1	1	2	25/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N						Condition (Good/Moderate/Poor):				Poor			



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris	Unique polygon reference(s)	W2
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Other woodland; broadleaved
Onsite or offsite?	Onsite	Condition sheet used	Woodland

Habitat description

Old downy birch and hornbeam *Carpinus betulus* plantation woodland. Dense canopy and therefore limited understorey. Trees are of a uniform age.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	2	2	3	2	3	3	2	3	1	3	2	1	2	29/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N						Condition (Good/Moderate/Poor):				Moderate			



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W3a
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Lowland mixed deciduous woodland
Onsite or offsite?	Onsite	Condition sheet used	Woodland

Habitat description

Broadleaved mixed woodland with diverse ground layer. Hazel, field maple, silver birch, willow, hornbeam, beech, horse chestnut, sweet chestnut *Castanea sativa*, sycamore *Acer pseudoplatanus*, ash and English elm *Ulmus procera*. Becomes dominated by sycamore to the north. Bluebell *Hyacinthoides non-scripta*, wood anemone, false brome, germander speedwell, herb Robert *Geranium robertianum*, pendulous sedge, remote sedge *Carex remota*, wood sedge, bugle, dog's mercury, male fern, enchanter's nightshade, wood speedwell, wood violet *Viola odorata*, wood meadow-grass.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	2	3	2	3	2	2	2	2	2	1	1	1	2	25/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N						Condition (Good/Moderate/Poor):				Poor			



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W3b
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Lowland mixed deciduous woodland
Onsite or offsite?	Onsite	Condition sheet used	Woodland

Habitat description

Woodland with similar composition to W3a but better management, with more mature and young trees, deadwood and less disturbance overall. Areas dominated by bramble.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	3	2	3	3	3	3	2	3	2	2	1	3	3	33/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N						Condition (Good/Moderate/Poor):				Good			

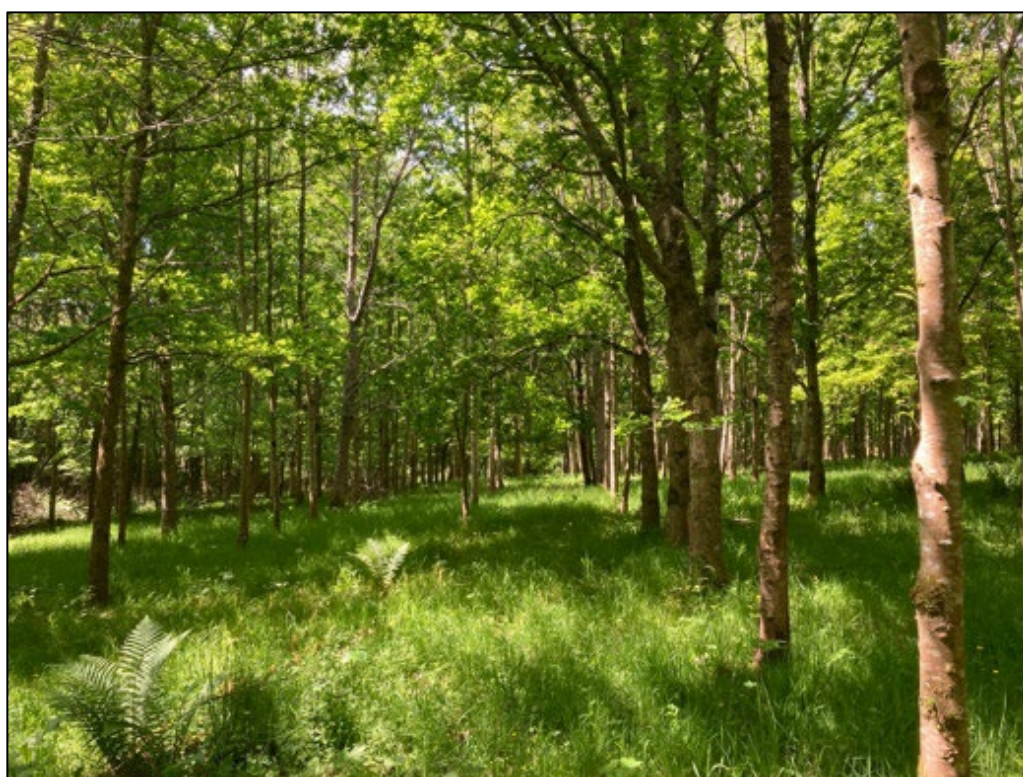


CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W4
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Other woodland; broadleaved
Onsite or offsite?	Onsite	Condition sheet used	Woodland

Habitat description

Plantation woodland with ash (dieback is present), sycamore, oak and sweet chestnut. Cherry *Prunus* sp. and poplar *Populus* sp. also present. Understorey comprised of wood meadow-grass, rough meadow-grass, germander speedwell and wood avens.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	1	2	3	2	3	1	2	2	1	1	1	1	1	21/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N						Condition (Good/Moderate/Poor):			Poor				



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W5
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Lowland mixed deciduous woodland
Onsite or offsite?	Onsite	Condition sheet used	Woodland

Habitat description

Field maple and ash-dominant woodland with English oak, hawthorn, sweet chestnut and holly also recorded. One veteran field maple tree identified. Ground flora comprised of dense bramble and nettle, boarded by bracken *Pteridium aquilinum* and English bluebell.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	3	2	3	3	3	3	3	2	1	2	2	1	3	27/39

Are any criteria non-negotiable? (Y/N)
If Yes are they passed?

N

Condition
(Good/Moderate/Poor):

Moderate



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	20/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W6
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Other woodland; broadleaved
Onsite or offsite?	Onsite	Condition sheet used	Woodland

Habitat description

Woodland of goat willow, sycamore, English oak, wild cherry *Prunus avium*, silver birch and hawthorn. Ground flora dominated by bramble and bracken with soft rush, perennial rye and sparse mosses also recorded.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	1	3	3	3	3	1	2	2	2	1	1	2	3	27/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N						Condition (Good/Moderate/Poor):			Moderate				



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	20/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline											
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W7											
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Other woodland; broadleaved											
Onsite or offsite?	Onsite	Condition sheet used	Woodland											
Habitat description														
English oak and silver birch-dominated plantation woodland, with sycamore and hawthorn also recorded. Small stream running through the centre of the parcel, where hawthorn begins to dominate. Ground flora included bracken, bramble and soft rush. Gipsywort <i>Lycopus europaeus</i>, water mint <i>Mentha aquatica</i> and pendulous sedge recorded close to the stream.														
														
Allocate pass 'P' or fail 'F'. For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.														
Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	2	2	3	3	3	2	1	3	2	2	1	2	3	29/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?		N					Condition (Good/Moderate/Poor):			Moderate				



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 – AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W8
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Other woodland; broadleaved
Onsite or offsite?	Onsite	Condition sheet used	Woodland

Habitat description

English oak plantation woodland, with one veteran oak seen in the centre of the site. Sycamore also dominates in some areas, with hawthorn recorded occasionally. Wild cherry and holly recorded in the southern sections, alongside a conifer species. Ground flora included bracken, bramble, pendulous sedge, grey sedge *Carex divulsa*, germander speedwell and nettle.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	2	2	1	2	2	2	2	3	1	2	1	2	2	24/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N						Condition (Good/Moderate/Poor):		Poor					



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	20/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W9
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Other woodland; broadleaved
Onsite or offsite?	Onsite	Condition sheet used	Woodland

Habitat description

Hawthorn-dominated woodland with sycamore, holly, beech, English oak, field maple, alder, common lime *Tilia x europaea* and horse chestnut also recorded. Silver birch trees dominate towards the north. Some veteran oaks identified as well as fallen deadwood. Rare amounts of rhododendron detected. Ground flora was dominated by bramble and pendulous sedge with bracken, field horsetail, ivy, enchanted nightshade, wild strawberry *Fragaria vesca*, wood spurge *Euphorbia amygdaloides* and wood melick *Melica uniflora* also recorded.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	1	2	1	2	3	1	1	3	1	1	2	2	3	23/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N						Condition (Good/Moderate/Poor):			Poor				



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	04/10/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline											
Surveyor name	Libby Morris	Unique polygon reference(s)	W10											
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Lowland mixed deciduous woodland											
Onsite or offsite?	Onsite	Condition sheet used	Woodland											
Habitat description														
Hawthorn, blackthorn, ash, English oak and sycamore species with ground flora of enchanter's nightshade, ground ivy, bracken, nettle, bramble and dog's mercury.														
 														
Allocate pass 'P' or fail 'F'.														
For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.														
Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	2	2	2	2	3	2	2	3	1	3	2	2	2	28/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N						Condition (Good/Moderate/Poor):			Moderate				



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W11
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Other woodland; broadleaved
Onsite or offsite?	Onsite	Condition sheet used	Woodland

Habitat description

Plantation woodland of ash, English oak, goat willow *Salix caprea*, sweet chestnut likely planted within the last 20 years. Ground layer remnant of neutral grassland with abundant Yorkshire fog and nettle, common fleabane, pendulous sedge, cleavers and ragwort. Ash dieback evident.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	1	2	3	2	3	1	2	1	1	1	1	2	1	21/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N						Condition (Good/Moderate/Poor):				Poor			



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline											
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W12											
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Lowland mixed deciduous woodland											
Onsite or offsite?	Onsite	Condition sheet used	Woodland											
Habitat description														
Mixed broadleaf woodland dominated by silver birch with elder, English oak, blackthorn, horse chestnut, hawthorn, beech, ash, wild cherry and holly also recorded. Ground flora recorded included false brome, pendulous sedge, bush vetch, ground ivy, nettle, bracken, common hogweed, germander speedwell and wood avens.														
 														
Allocate pass 'P' or fail 'F'.														
For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.														
Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	3	2	3	2	3	2	2	2	1	1	1	1	3	26/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N						Condition (Good/Moderate/Poor):			Moderate				

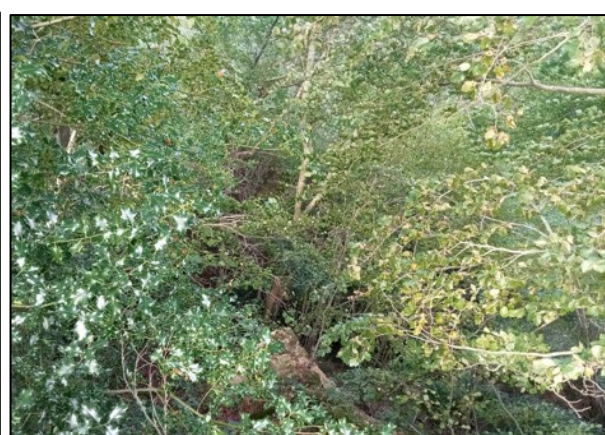


CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023 & 04/10/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W14
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Lowland mixed deciduous woodland
Onsite or offsite?	Onsite	Condition sheet used	Woodland

Habitat description

Beech-dominated woodland with hawthorn, English oak, holly, ash, silver birch, horse chestnut, hazel and aspen also recorded. Ground flora comprised of pendulous sedge, spurge laurel, bracken, wood spurge and bramble. Veteran beech tree recorded. Undergoing clearance works in south-western section in October 2023.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	2	2	3	3	3	3	2	2	2	2	2	2	3	31/39
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N						Condition (Good/Moderate/Poor):			Moderate				



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - AREA BASED HABITATS

Date	21/07/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Baseline
Surveyor name	Libby Morris & Dan Bennett	Unique polygon reference(s)	W15
Project / development name	Beechy Bottom Reserve	Metric 4.0 habitat type	Lowland mixed deciduous woodland
Onsite or offsite?	Onsite	Condition sheet used	Woodland

Habitat description

Mixed broadleaved woodland dominated by nettle. Tree species recorded included beech, hazel, elder, hawthorn, blackthorn, English oak, ash, alder, holly and field maple. Ground flora included, false brome, wood meadow-grass, rough meadow-grass, hairy sedge, wood sedge, broad buckler fern, lesser celandine, ground ivy, male fern, cow parsley, cleavers, red campion, enchanter's nightshade, hedge woundwort, lady fern and dogs' mercury. Ancient woodland indicators present including primrose, pendulous sedge, wood anemone, remote sedge and wood speedwell in low abundance. Undergoing clearance works in south-eastern section in October 2023.



Allocate pass 'P' or fail 'F'.

For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.

Criterion	A	B	C	D	E	F	G	H	I	J	K	L	M	TOTAL
Result	2	2	3	3	3	3	2	2	2	1	1	1	3	28/39

Are any criteria non-negotiable? (Y/N)
If Yes are they passed?

N

Condition
(Good/Moderate/Poor):

Moderate



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - LINEAR HABITATS			
Date		04/10/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)
Surveyor name		Kate Lewis	Baseline
Project / development name		Beechy Bottom	Condition sheet used
Onsite or offsite?		Onsite	Line of trees
Metric 4.0 habitat type			
Line of trees			
Allocate pass 'Y' or fail 'N'.			
Attributes and functional groupings (A, B, C, D and E)		Habitat parcel reference	
		TL1	TL2
A	Native	Y	Y
B	Canopy gaps	Y	N
C	Veteran features and/or ecological niches	Y	Y
D	Undisturbed vegetated strip	Y	Y
E	Healthy condition trees	Y	N
Total		6/6	3/5
Condition - Good (G), Moderate (M) or Poor (P)		Good	Moderate



CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 4.0 - LINEAR BASED HABITATS					
Date		04/10/2023	Metric 4.0 survey reference (if condition assessment of this polygon relates to a wider habitat survey)		Baseline
Surveyor name		Libby Morris	Condition sheet used		Hedgerow
Project / development name		Beechy Bottom	Onsite or offsite?		Onsite
Allocate pass 'Y' or fail 'N'.					
Attributes and functional groupings (A, B, C, D and E)					
Habitat parcel reference		H1	H2	H3	H4
Metric 4.0 habitat type and description		Native hedgerow – dominated by bramble	Species-rich hedgerow with trees – English oak, bramble, hawthorn, willow species, ivy, field maple, sycamore, hazel, blackthorn, goat willow, dog rose.	Species-rich hedgerow with trees – dominant ash with dog rose, hawthorn, willow species, bramble, English oak, sycamore, field maple and blackthorn.	Species-rich hedgerow with trees – dominated by field maple with hawthorn, hazel, ash, blackthorn, willow species and bramble recorded
A1	Height	N	Y	Y	Y
A2	Width	N	Y	Y	Y
B1	Gap-hedge base	Y	Y	Y	Y
B2	Gap-hedge canopy continuity	Y	Y	Y	Y
C1	Unidisturbed ground and perennial vegetation	N	Y	Y	Y
C2	Nutrient-enriched perennial vegetation	N	N	N	Y
D1	Invasive and neophyte species	Y	Y	Y	Y
D2	Current damage	Y	Y	Y	Y
E1	Tree class	N/A	Y	N	N
E2	Tree health	N/A	Y	N	Y
Total		4/8	9/10	7/10	9/10
Condition - Good (G), Moderate (M) or Poor (P)		Poor	Good	Moderate	Good



Appendix G6: Habitat & Ecological Restoration Management Plan

Beechy Bottom Country Park, Ansty, Mid-Sussex

Habitat & Ecological Restoration Management Plan

March 2023

A report on behalf of Savills Ltd

Ref: 0069_Rev A

Site Details

Site Name	Beechy Bottom Country Park
Site Location	Ansty, Mid-Sussex
Central OS Grid Reference	TQ 292 246
Client	Savills Ltd

Quality Assurance

Report Title	Habitat & Ecological Restoration Management Plan
Period Covering	2023 – 2048
Report Reference	0069_Rev A
Author	Dominic Sheldon BSc PGCert ACIEEM TechArbor A
Revision No.	FINAL
Issue Date	03 March 2023
Summary of Changes	N/A
Revised By	N/A
Approved By	Aran Kimberlee BSc (hons) MArborA PTI

The content of this report that has been provided by Tadorna Consulting Ltd is true and has been prepared and submitted in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. Its contents are compliant with British Standard BS42020: 2013 Biodiversity Code of Practice for Planning and Development.

This report has been prepared for the exclusive use of the stated client and unless otherwise agreed in writing by Tadorna Consulting Ltd, no other party may use, make use of or rely on the contents of the report. No liability is accepted by Tadorna Consulting Ltd for any use of this report, other than for the purposes for which it was originally prepared and provided.

Tadorna Consulting Ltd has exercised due care in preparing this report. It has not, unless specifically stated, independently verified information provided by others. No other warranty, express or implied, is made in relation to the content of this report and Tadorna Consulting Ltd assumes no liability for any loss resulting from errors, omissions or misrepresentation made by others.

Any recommendation, opinion or finding stated in this report is based on circumstances and facts as they existed at the time that Tadorna Consulting Ltd undertook the work. Nothing in this report constitutes legal opinion. If legal opinion is required, the advice of a qualified legal professional should be secured.

The authority of this report ceases at any stated time limit within it, or if none is stated after two years from the date of the survey or when site conditions change, or pruning or other works unspecified in the report are carried out to, or affecting, the subject tree(s), or whichever is sooner.

© Tadorna Consulting Ltd (UK) Ltd 2023

Executive Summary

This report presents the results of a desk study, Extended Phase 1 Habitat Survey and Habitat & Ecological Restoration Management Plan at Beechy Bottom Country Park, Ansty, Mid-Sussex (central OS grid reference: TQ 292 246) to provide advice on future management and potential ecological enhancement for the estate as well as detailing management vision, objectives and potential enhancement of the site as a whole.

The site is approximately 109.53ha (see Figure 1) and is comprised of a former historic deer park (de-parked in 1618) Semi-Natural Ancient Woodland (SNAW), improved grassland, semi-improved grassland, native hedgerows, wet woodland, an arable cover crop, hardstanding, dense and scattered scrub, dense bracken, mixed broadleaved woodland, secondary woodland, areas of bare ground, a traditional building, a series of landscape trees, (including a number of veteran trees), a series of ponds and a watercourse (see Appendix 1).

The site is located approximately 550m to the west of the village of Cuckfield, Mid-Sussex.

Only the two former parkland blocks of grassland with two associated fields located to the north of the site, two ponds utilised by a local angling group for coarse fishing, as well as a small block of woodland with associated arable cover crop (currently utilised for the raising of pheasants) currently receive any management. The remainder of the site, mainly comprised of woodland habitats is currently unmanaged. It is proposed to introduce limited management to the site for the benefit of wider fauna and flora and to increase access to the site for the local community.

Study Purpose

A desk study and field survey was undertaken in combination with the Habitat & Ecological Restoration Management Plan to assess the existing site ecological receptors and to assess the perceived ecological impacts and constraints associated with the proposed management of the site, including any perceived impacts to: legally protected species or species of conservation concern; legally protected habitats or habitat of conservation concern; any statutory or non-statutory sites of conservation interest; and opportunities to provide biodiversity enhancement(s). The management plan will also outline the impacts of the proposed management of ecological receptors and habitats and provide recommendations for stock, site access, staffing, monitoring and a feasibility assessment for the project.

Site Ecology

The site was found to support suitable habitats for a range of foraging, nesting and commuting, and dispersal habitat for protected and notable species, including breeding birds, reptiles, bat species, dormouse, hedgehog, amphibians (including great crested newt *Triturus cristatus*), notable plant species, notable invertebrate species and otter. The site also supports a series of invasive plant species including substantial stands of the Schedule 9 (of the Wildlife & Countryside Act 1981 (as amended)) invasive plant species *Rhododendron ponticum* and winter heliotrope *Petasites fragrans* (an invasive non-native species) which require removal.

Conclusion

The following proposed management and enhancement measures should be undertaken to enhance the ecological features present to achieve the vision for the long-term management and habitat/species restoration of the site:

-  Creation of areas for dog walking and general public access (including new pathways) located to the north of the site to allow greater (but controlled) access through the wooded areas of the site;
-  Creation of glades within the broadleaved plantation woodland component of the site to improve and enhance woodland structure by allowing an increase in light to infiltrate onto the woodland floor in order to create opportunities for alternative habitats;
-  Construction of external deer fencing with cattle protection;
-  Partial conversion of the barn on site to create a 'rangers hut';

- 🍁 Removal of fences and a proportion of the scrub located around the ponds located on site;
- 🍁 Clear up of the existing 'burn pit' located on site;
- 🍁 Restoration of the coarse fishing and other ponds located on site;
- 🍁 Allowing the main grassland blocks to 'scrub up' through natural succession;
- 🍁 Introduce low-level grazing pressure through the introduction of rare-breed Sussex cattle *Bos taurus*, red deer *Cervus elaphus*, brown hare *Lepus europaeus* and Tamworth pig;
- 🍁 Fallow deer *Dama dama* and grey squirrel *Sciurus carolinensis* management/removal;
- 🍁 Woodland restoration, including the veteranisation and removal of the poplar trees as well as a proportion of the ash and Turkey oak growing within the broadleaved plantation woodlands located on site in order to provide habitat for nesting birds, crevice dwelling bats and to provide a deadwood component of the site and reduce the spread of invasive species;
- 🍁 Allow for deadwood accumulations throughout the woodland which will affect the structure and enhance woodland biodiversity;
- 🍁 Removal and eradication of the Schedule 9 invasive plant species *Rhododendron ponticum* from the woodland, and the invasive non-native winter heliotrope *Petasites fragrans* from the south of the site, which will ultimately limit biodiversity;
- 🍁 Protect, record, monitor and appropriately manage all ancient and veteran trees including the historic sweet chestnut located within the former parkland located on site;
- 🍁 Install six hibernation suitable bat boxes and, 20 bird and 20 dormouse boxes within the semi-natural ancient woodland component of the site; and,
- 🍁 Planting of 60 new standard landscape trees of English oak *Quercus robur* and sweet chestnut *Castanea sativa* (with associated stock protection).

Overall, the proposed management and enhancement measures will result in a substantial net gain in biodiversity, provided the recommendations are undertaken in accordance with this report. The proposed will result in carbon-capture through soil sequestration of atmospheric CO², habitat creation through succession and the introduction of sensitive management through the creation of relatively large-scale semi-natural habitats which have become scarce within the wider countryside.

This will result in the restoration of both habitats and animal populations including for rare, scarce and notable species such as bats, invertebrate, reptile, mammal (including dormouse), bird and amphibian (including great crested newt) species.

Contents

1	Introduction.....	7
1.1	Aims	7
2	Methods.....	1
2.1	Ecological Scoping and Baseline Data Collection	1
2.2	Extended Phase 1 Habitat Survey.....	1
2.3	Badger Survey.....	2
2.4	Tree Assessment for Bats	3
2.5	Baseline Evaluation and Impact Assessment.....	3
2.6	Limitations	3
3	Results.....	4
3.1	Internationally Designated Sites	4
3.2	Nationally Designated Sites.....	4
3.3	Non-designated sites.....	4
3.4	EPS Mitigation Licences.....	5
3.5	Great Crested Newt Class Survey Licence Returns.....	5
3.6	Great Crested Newt Pond Surveys 2017-2019	5
3.7	Priority Habitats	5
3.8	Geology & Soils.....	5
4	Field Survey	6
4.1	Habitat Descriptions	6
4.2	Field survey	6
4.3	Fauna	23
4.4	Flora	30
5	Conservation management Plan 2023 - 2047	32
5.1	Introduction.....	32
5.2	History and Past Management of the site.....	32
5.3	Future Vision	33
5.4	Biodiversity Restoration Detail - Habitats	35
5.5	Biodiversity Restoration Detail – Species.....	41
5.6	Stock overview	47
5.7	Cattle.....	49
5.8	Site access.....	52
5.9	Potential issues	53
5.10	Feasibility Assessment.....	53
5.11	Staffing.	53
5.12	Monitoring.....	54
6	References	55
6.1	Fauna & Flora.....	60

Appendices

Appendix 1 – Extended Phase 1 Habitat Plan..... 57

Appendix 2 – Proposed Management Plan 58

Appendix 3 – Desk Study 60

Appendix 4 - Management schedule – Ecology and Habitats 67

1 INTRODUCTION

This report presents the results of an Habitat & Ecological Restoration Management Plan (MP) at Beechy Bottom Country Park, Ansty, Mid-Sussex (central OS grid reference: TQ 292 246). The surveys were commissioned by Savills Ltd.

The site was originally a deer park serving the Tudor Cuckfield Park house, located a short distance to the east of the site. This served as deer park for the hunting or deer until it was 'de-parked' in 1618.

The site is made up of a diverse series of habitats including Semi-Natural Ancient Woodland (SNAW), improved grassland, semi-improved grassland, native hedgerows, wet woodland, an arable cover crop, hardstanding, dense and scattered scrub, dense bracken, mixed broadleaved woodland, secondary woodland, areas of bare ground, a traditional building, a series of landscape trees, (including a number of veteran trees), a series of ponds and a watercourse (see Appendix 1).

The site forms part of the High Weald Area of Outstanding Natural Beauty (AONB) and supports a Local Wildlife Site (LWS) – The Hanger and a geological designation, Whitemans Green, Local Geological Site (LGS). The total area of the survey site is 109.53 hectares (ha) in size (see Figure 1 & Appendix 1).

It is proposed to introduce an alternative management regime to the site in order to enhance and restore the ecological receptors present.

1.1 Aims

The aim of this report is to:

- ✶ To provide a vision and advice on future management and potential ecological enhancement for the site as well as detailing objectives and potential enhancement of the site as a whole.
- ✶ Identify and describe the habitats and species likely to be present within the site and assess the ecological value of these features;
- ✶ Provide a professional opinion on existing management and advice on the future management of the habitats present with the aim of restoring and enhancing their value to wildlife and their associated species while introducing an alternative management schedule for a 25 year (2023- 2048) period; and,
- ✶ Provide recommendations for habitat creation to further enhance the value of the site for a wide variety of wildlife.
- ✶ The management plan will also outline the impacts of the proposed management of ecological receptors and habitats and provide recommendations for stock, site access, staffing, monitoring and a feasibility assessment for the project.



2 METHODS

2.1 Ecological Scoping and Baseline Data Collection

Biodiversity information was requested for a study area of 1 km radius around the site survey boundary (hereafter referenced as the 'Site') designated sites and notable/ protected species (extended to 2 km for bats) from the Sussex Biodiversity Record Centre (SBRC) in October 2022.

To support this, an internet search was undertaken to identify statutory sites designated for nature conservation value within a 1 km radius of the site boundary, using the Government's mapping website MAGIC (www.magic.gov.uk). A search was also conducted on MAGIC for sites of international importance for 10 km around the site and European Protected Species licences issued by Natural England and Habitats of Principal Importance (HPI) within 1 km of the site.

Aerial photography of the wider area was also reviewed to identify possible important habitat features for wildlife.

Table 1 summarises the surveys undertaken to provide ecological baseline information for the Site. Full details are provided in the appendices.

Table 1: Summary of Baseline Data Collection Surveys

Survey Type	Date (s)	Surveyor	Summary of Methods
Desk study	17 & 18 th October 2022	Dominic Sheldon BSc (Hons) PgCert ACIEEM TechArborA	Internet search using MAGIC: priority habitats within 1 km, Natura 2000 sites within 10 km.
Extended Phase 1 Habitat Survey			Walkover of habitats within the Site boundary in accordance with JNCC (2010) and CIEEM (2013). See Appendix 1 .
Badger Survey			Based on the methodology outlined by Harris, Creswell and Jefferies (1991).
Tree Assessment for Bats			Based on the methodology published by the Bat Conservation Trust (Collins 2016)

2.2 Extended Phase 1 Habitat Survey

A site walkover was undertaken in accordance with the Joint Nature Conservation Committee's Phase 1 Habitat Survey methodology (JNCC 2010) on 17 October 2022 by Dominic Sheldon BSc (Hons) PgCert ACIEEM TechArborA when weather conditions were dry, warm and with good visibility.

All habitats within the Site were identified, described and mapped during the field survey, and an indicative botanical species list compiled. Plant names follow Stace (2019). The survey was extended to highlight the potential presence of protected and priority species in accordance with CIEEM's Guidelines for Preliminary Ecological Appraisal (2017). This involved a search to identify the presence or potential presence of notable and protected species such as breeding birds, badger *Meles meles*, dormouse *Muscardinus avellanarius*, bats, reptiles and amphibian species. Target Notes (TNs) were used to record any features or habitats of ecological interest.

Where access allowed, adjacent habitats were also considered in order to assess possible impacts of the proposal in a wider context.

A series of digital maps have been produced using QGIS (QGIS Development Team (2018) Geographic Information System Open Source Geospatial Foundation Project). The Phase 1 Habitat map is shown in **Appendix 1**.

2.3 Badger Survey

A badger survey was undertaken on the 17 October 2022 by Dominic Sheldon BSc (Hons) PgCert ACIEEM TechArborA (Badger class licence holder CL36/067).

The survey involved a thorough search of the Site for evidence of badger activity based on the methodology outlined by Harris, Creswell and Jefferies (1991). A search was made for:

- ✦ Setts, including earth mounds/ spoil, evidence of bedding and runways between setts;
- ✦ Latrines, often located close to setts, at territory boundaries or adjacent to favoured feeding areas;
- ✦ Prints and paths;
- ✦ Hairs within sett entrance or caught on nearby fencing; and,
- ✦ Other evidence including snuffle holes, feeding and playing areas and scratching posts.

Where setts were observed, their status and the level of activity were noted. Sett status can be broadly classified as:

Main sett – A sett within a badger territory that appears to be the largest (usually with at least five holes) and the most well-used, with much activity in the vicinity, is categorised as the main sett. Main setts always have active badger runs leading away from them and are normally marked by latrines. Social groups have one main sett, which is the most important sett in the territory. It is used throughout the year and is the main breeding sett.

Annexe sett – Setts are categorised as annexe setts where they are assumed to form part of the main sett area but where the sett is unlikely to be directly linked by an underground passage to the main sett either due to a barrier (e.g. separated by a watercourse or ditch) or by distance. Annexe setts are normally linked to the main sett by a well-used path and lie within 150 m of a main sett entrance.

Subsidiary sett – Setts that offer an alternative sett complex to the main sett are categorised as subsidiary setts. Subsidiary setts are normally, at least, 50 m from the main sett and are not always obviously linked by a well-used path to the main sett (unlike annexe setts). Subsidiary setts often exhibit moderate levels of activity, are larger than outlier setts but smaller than main setts. Subsidiary setts are often marked by latrines.

Outlier sett – These setts often comprise just one or two entrances. They are used infrequently and can be found at the boundaries of a badger social group's territory.

When found, activity levels at individual sett entrances were categorised using the following typology:

- ✦ **Category A:** sett entrances comprising a number of well-used sett entrances (with one or more of the following features: well-worn entrance, freshly excavated soil and bedding material);
- ✦ **Category B:** setts with partially used holes (leaves or twigs in entrance and/or mosses and other plants growing in or around the entrance); and,
- ✦ **Category C:** an apparently disused sett entrance (partially or completely blocked, with a considerable amount of excavation required for reoccupation).

Where access allowed, adjacent habitats and properties were also searched in order to assess possible impacts of the proposal in a wider context.

The survey aims were to:

- ✦ Locate all setts and badger activity within the Site;
- ✦ Provide an evaluation of the likely impact of the exclusion works on the badger social group utilising the outlier setts; and,

- Provide a working Method Statement for the temporary partial closure of the two single-entrance entrance outlier setts.

2.4 Tree Assessment for Bats

The trees on Site were assessed by Dominic Sheldon BSc (Hons) PgCert ACIEEM TechArborA on 17/10/2022 during the Extended Phase 1 Habitat Survey for their bat roost potential in accordance with best practice methodology published by the Bat Conservation Trust (Collins 2016).

Trees were inspected from ground-level with the aid of binoculars for Potential Roost Features (PRFs) such as rot holes, hazard beams, cracks or splits, woodpecker holes, knot holes, man-made holes, cankers, gaps between overlapping stems/ branches, loose bark, dense ivy, epicormic growth and bat, bird or dormouse boxes. Signs indicating possible use by bats were also recorded, such as bat droppings, odour, scratches, staining and audible sounds. Information collected about PRFs included a description, the height of the feature above ground level and the orientation of the feature in relation to the trunk.

Trees were then prescribed a category based on their potential to support roosting bats as detailed in **Table 2**. Locations are shown in **Appendix 1**.

Table 2: Bat Roost Potential (as detailed in Collins, 2016)

Suitability	Description of bat roosting potential (trees)
Negligible	Negligible habitat feature/s likely to be used by roosting bats
Low	A tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A tree with one or more potential roost sites that are obviously suitable for use by larger number of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Roost	Known or confirmed roost

2.5 Baseline Evaluation and Impact Assessment

Determining the importance of ecological features was undertaken in accordance with the Chartered Institute of Ecology and Environmental Management's Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018). An assessment was then made of possible ecological impacts of the proposed development on each feature within the development's likely 'Zone of Influence' (ZoI). Where uncertainty exists, a precautionary approach has been adopted.

2.6 Limitations

Care has been taken to ensure that balanced advice is provided on the information available and collected during the study period (s), and within the resources available for the project. However, the possibility of important ecological features being missed due to survey timings, absence during surveys or the year of survey cannot be ruled out. In addition, the lack of evidence or records of protected species on Site does not preclude their presence.

3 RESULTS

3.1 Internationally Designated Sites

There are no internationally designated (Natura 2000) sites for nature conservation within 10 km of the Site boundary.

3.2 Nationally Designated Sites

One statutory designated site lies within 1 km of the Site boundary. A summary is provided in **Table 3**.

There is an area of woodland identified as an Ancient Woodland Inventory (AWI) within the Site boundary for its semi-natural ancient woodland interest.

3.3 Non-designated sites

Two non-designated sites for nature conversation lie within 1 km of the Site. A summary is provided in **Table 3**.

An Ancient Woodland Inventory and Ghyll Woodland were also returned from within 1 km of the Site. These are not designated sites *per se*, but are considered areas of Sussex countryside which support higher than average concentrations of existing wildlife habitats such as native woodlands, flower-rich grasslands, bogs and heathland (many of these habitats will have an international, national or local designation).

Table 3: Designated sites records within 1 km of Site boundary

Site Name	Location	Description
<i>Statutory Designated Sites</i>		
High Weald Area of Outstanding Natural Beauty (AONB)	Forms part of the southern Site boundary	Designated as 'Weald' and given to the area between the North and South Downs which are the outer chalk rims of the ancient Wealden anticline. The sandstones and clays of the exposed centre of the dome, the 'High Weald' give rise to a hilly, broken and remote country of ridges and valleys covered by a patchwork of fields, woods and shaws. In contrast, open areas of the AONB include Ashdown Forest and, to the east, the river valleys of the Rother, Brede and Tillingham. The AONB meets the coast at Hastings. The character of the High Weald was established by the 14th century and has survived major historical events and social and technological changes. As a result the High Weald is considered to be one of the best surviving, coherent medieval landscapes in Northern Europe.
<i>Non-statutory Sites</i>		
The Hanger Local Wildlife Site (LWS)	Located approximately 900 m to the west	Designated for its two types of woodland that are present within a gill woodland. Alder occurs along the streams and extends up the lower slopes in parts, with oak, hazel and ash on the upper slopes and the flat ground above. The wood supports a wide range of woodland plants, mosses and liverworts, a good bird community and a number of uncommon butterflies.
Whitemans Green, Cuckfield Local geological site	Located approximately 155 m to the east of the Site	Designated for its historical geological interest
<i>Ancient Woodland Inventory Site (AWI)</i>		
Walks Wood Ancient Woodland Inventory (AWI)	Located within the Site boundary	Designated for its ancient woodland habitats
Walks Wood Ghyll Woodland	Located within the Site boundary	Designated for the highly species-rich woodland, even at the small scale, support distinctive assemblages of cryptogamic plants, and are unique to south-east England.

3.4 EPS Mitigation Licences

No EPS mitigation licences have been granted within 1 km of the Site boundary.

3.5 Great Crested Newt Class Survey Licence Returns

No Great Crested Newt Class Survey Licence Returns have been granted within 1 km of the Site boundary.

3.6 Great Crested Newt Pond Surveys 2017-2019

No ponds within 1 km of the Site boundary were shown to support great crested newt from between 2017-2019.

3.7 Priority Habitats

The Site supported a series of habitats of principal importance (HPI) or Biodiversity Action Plan (BAP) habitats. These were areas of ancient replanted woodland, ancient and semi-natural woodland and areas of the BAP habitat - wood pasture and parkland.

3.8 Geology & Soils

The underlying geology is very varied over the Site with the following geology types being recorded:

- ✦ Ardingly Sandstone Member - Sandstone. Sedimentary bedrock formed between 139.4 and 133.9 million years ago during the Cretaceous period;
- ✦ Lower Grinstead Clay - Mudstone. Sedimentary bedrock formed between 139.4 and 133.9 million years ago during the Cretaceous period;
- ✦ Upper Grinstead Clay - Mudstone. Sedimentary bedrock formed between 139.4 and 133.9 million years ago during the Cretaceous period;
- ✦ Lower Tunbridge Wells Sand - Sandstone, siltstone and mudstone. Sedimentary bedrock formed between 139.4 and 133.9 million years ago during the Cretaceous period;
- ✦ Cuckfield Stone Bed - Sandstone, calcareous. Sedimentary bedrock formed between 139.4 and 133.9 million years ago during the Cretaceous period; and,
- ✦ Wadhurst Clay Formation - Mudstone. Sedimentary bedrock formed between 139.4 and 133.9 million years ago during the Cretaceous period.

4 FIELD SURVEY

4.1 Habitat Descriptions

The survey Site included, and was comprised of, an historic parkland, mostly converted to improved grassland and broadleaved plantation woodland, areas of ancient semi-natural woodland, secondary woodland, arable, dense scrub, dense bracken, semi-improved grassland, watercourse, a series of ponds, tall ruderal and parkland trees (including veteran trees), bound by a series of hedgerows and fences (see Appendix 1). The Site is located approximately 500 m to the west of the village of Cuckfield, Sussex. The Site measured approximately 109.53 ha.

The immediate surroundings to the Site include:

- 🍁 The grounds of Cuckfield House (located to the east of the Site);
- 🍁 Open countryside dominated by arable and pasture fields (to the south and west); and,
- 🍁 Staplefield Road and further areas of open countryside (located to the north of the Site).

4.2 Field Survey

Table 4: Survey Environmental Conditions

Date	Temperature	Beaufort	Cloud cover	Precipitation
17 & 18 th October 2022	17°C	F2-3	20-100%	None
Constraints on the survey: The survey was undertaken in late Autumn, which may preclude spring and summer annual botanical species. However, botanical diversity was considered sufficient to classify and assess the habitats present.				

4.2.1 Amenity Grassland

This habitat was confined to the northern-most field parcel (Field Parcel A). This parcel was dominated by perennial rye grass *Lolium perenne*, with some Yorkshire fog *Holcus lanatus*, dove's-foot cranesbill *Geranium molle*, common ragwort *Jacobaea vulgaris*, white clover *Trifolium repens* and curled dock *Rumex crispus* (see Figure 2). The parcel is currently utilised as a local sporting venue.



Figure 2: View of the amenity grassland located within Field Parcel A (see Appendix 1).