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BRADFORD-ON-AVON

Ecological Appraisal of Town Council Estate

Date of Report: October 2020

Report Expiry date: October 2021

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Ecological Appraisal of Town Council Estate, Bradford-on-Avon

Client: Bradford-on-Avon Town Council

Reference: J006652

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Issue:	Date:	Written by:	Reviewed by:	Amended by:	Approved by:
One	16th October 2020	JM	PJ	JM	PJ
Two	22nd December 2020			JM	

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1 INTRODUCTION

1.1 In June 2020, Ecosulis was commissioned by Bradford-on-Avon Town Council to undertake an Ecological Appraisal of various land parcels under, or in the processes of becoming under their ownership or management of the council.

1.2 This report provides ecological information on several sites within the Town Council's estate along with recommendations for their future management.

Objectives of the Study

1.3 The objectives of this study are to provide information on the existing ecological condition of sites within the Town Council's estate and to inform future enhancements for biodiversity and public use of these sites in the context of the Town Council's ecological emergency declaration.

General Description of Sites

1.4 The fifteen sites included in this report are those within the Town Council's estate that were not included in the group of sites for which an individual site Preliminary Ecological Appraisal report was completed. All the sites included in this report are located within Bradford-on-Avon, or on the periphery of the town.

Nomenclature

1.5 The common name only of flora and fauna species is given in the main text of this report; however, scientific names are used for species where no common name is available. A full list of all species recorded on site during the surveys is given (Appendix I) with their scientific names. All plant names follow the nomenclature of Stace (2010).

2 BASELINE ECOLOGICAL CONDITIONS: SITE AND HABITAT DESCRIPTIONS

2.1 Habitats assessed to be currently present at each of the fifteen study sites are summarised in Table 1, below and their locations are mapped in Figure 1. The sites can be divided into several broad categories, (i) recreation and play areas, (ii) public green space, (iii) allotments, and (iv) non-green space.

Recreation and Play Areas

2.2 Recreation and play areas play a valuable social function within the town. They typically comprise modified grassland habitats and mixed sealed and unsealed artificial surfaces with limited ecological value. Some recreational sites (e.g. Sladesbrook and Bancroft Park) support mature trees and hedgerows that offer habitat for a variety of common species.

Other Public Green Space

2.3 Broadleaved and mixed woodland sites are present throughout the town, with several areas of parkland. Several woodland sites – for example, Poulton Meadow, Tory Trees - represent valuable 'stepping stones' that contribute to ecological connectivity through the town. In particular, Poulton Meadow recorded the highest score for ecological value of all sites through the Defra Metric 2.0 assessment. This is partially a reflection of the site's size, but also the value of features on site, including a mature hedgerow and treeline with a moderate degree of connectivity to the wider landscape.

2.4 Poulton Meadow is currently managed as an offsetting site for a separate development. The site's current management regime consists of annual harrow works on rotation and a spring cut, both undertaken annually each March, and a main hay cut, completed annually each August. Main hay arisings are left for two days before being removed, while spring cut arisings are removed immediately. This management regime will improve the site's ecological value, and additional recommendations for the site have been made in the following sections.

Allotments

2.5 Allotments, present at several sites within the Town Council's estate, also provide high-value habitat, in particular offering refuge opportunities for reptiles, invertebrates, and amphibians, through compost piles and ponds for example. Allotment habitats are typically some of the highest value of the sites included within this report when considering the Defra Metric. These habitats are also typically located on the periphery of the town and, with the exception of Frome Road

Allotments, all are directly connected to the surrounding countryside. The Shoulder of Mutton Allotments are adjacent to a tree line and hedgerow which borders the currently disused golf course, with Sladesbrook and Bancroft Allotments well-connected to surrounding arable land.

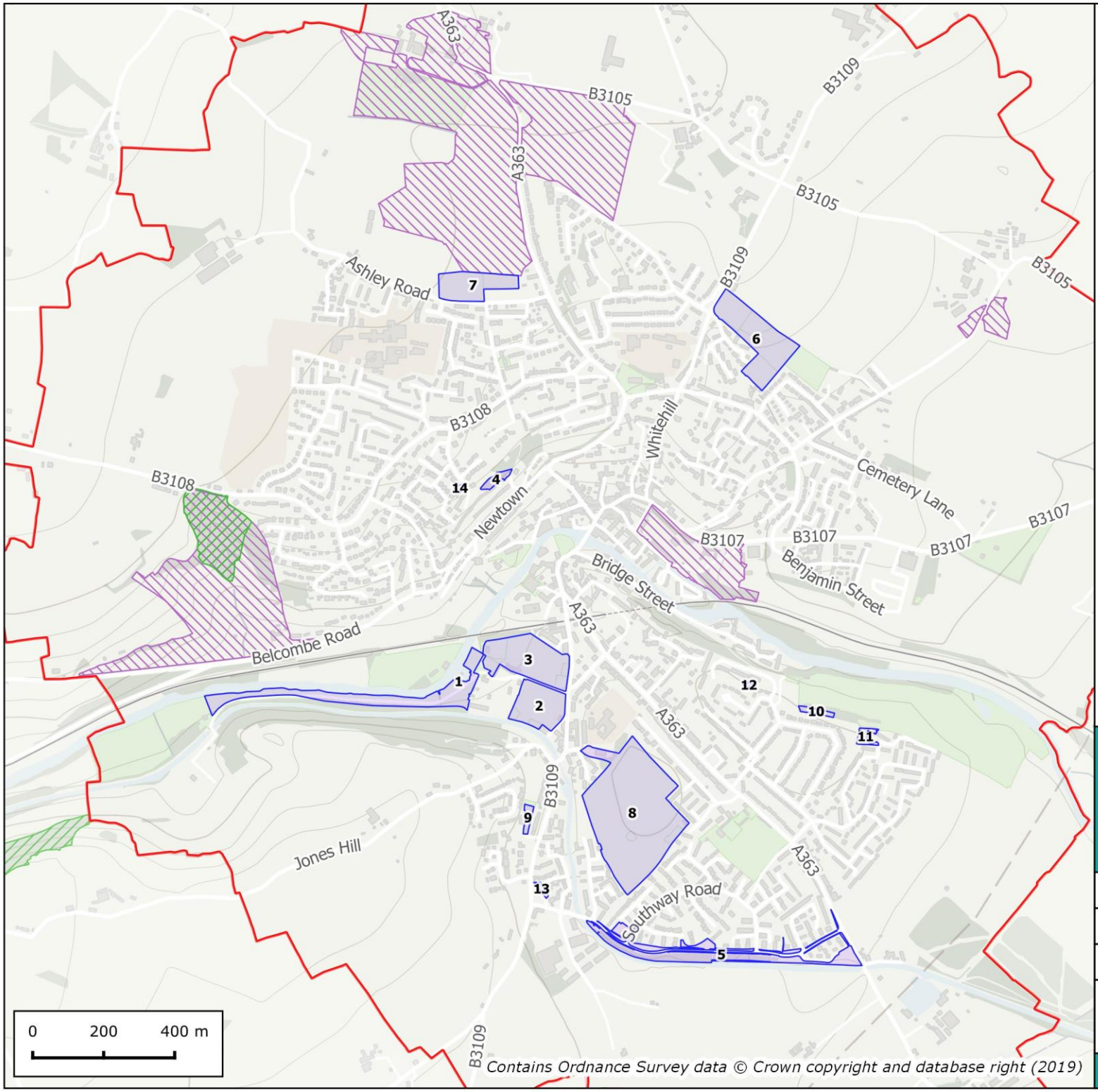
Non-Green Space

2.6 Budbury Place Car Park consists of an artificial surface and built linear features. The site also provides access to several garages and so has hight levels of disturbance. Given this, the site has little ecological value.

Table 1: Key habitats and linear features at each site

Site	Key Habitats	Key Linear Features
Barton Farm Country Park – Near Area	• Broadleaved woodland • Bare ground • Amenity grassland • Sparsely vegetated ruderal land	
Victory Field	• Amenity grassland • Street tree • Artificial sealed surface • Artificial unsealed surface • Mixed scrub	
Culver Close	• Amenity grassland • Artificial sealed surface • Artificial unsealed surface • Broadleaved woodland • Wood pasture and parkland	• Native hedgerow
Tory Trees	• Broadleaved woodland	
Moulton Drive	• Modified grassland • Bramble scrub	
Sladesbrook and Bancroft Allotments and Park	• Broadleaved woodland • Neutral grassland • Allotments • Wood pasture and parkland • Modified grassland • Artificial unsealed surface	• Native hedgerow
Bearfield and Bearfield Play Area	• Modified grassland • Broadleaved woodland • Artificial unsealed surface	
Poulton Meadow and Field	• Modified grassland • Neutral grassland	• Native hedgerow with trees

Site	Key Habitats	Key Linear Features
	• Mixed woodland • Artificial unsealed surface	
Frome Road Allotment	• Allotments • Broadleaved woodland	
Shoulder of Mutton Allotment	• Allotments • Broadleaved woodland	• Native hedgerow
St. Aldheim Play Area	• Modified grassland • Artificial unsealed surface	
Greenland View Play Area	• Modified grassland • Artificial unsealed surface • Wood-pasture and parkland	
Spencer's Orchard Play Area	• Modified grassland • Artificial unsealed surface • Built linear features	
Budbury Place Car Park	• Artificial unsealed surface • Built linear features	



Key

- Bradford on Avon Civil Parish
- Ancient Woodland
- Wood Pasture and Parkland
- Additional Sites:

1 Barton Farm Country Park - Near Area
2 Victory Field
3 Culver Close
4 Tory Trees
5 Moulton Drive
6 Sladesbrook and Bancroft Allotments and Park
7 Bearfield and Bearfield Play Area
8 Poulton Meadow and Playing Fields
9 Frome Road Allotments
10 Shoulder of Mutton Allotments
11 St Aldheim Play Area
12 Greenland View Play Area
13 Spencer's Orchard Play Area
14 Budbury Place Car Park

N

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Project: Ecological Appraisal of Town Council Estate

Title: Location Plan

October 2020

Figure 1

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3 OPPORTUNITIES AND RECOMMENDATIONS FOR BIODIVERSITY ENHANCEMENTS

3.1 Specific management recommendations are presented below and mapped Figures 2-15 (Appendix II). A summary of management recommendations by site is provided in Table 2.

1. Development of Woodland Margins

3.2 Encouraging the development of scrub and woodland edge species, through consideration of (i) the timing of cuts (generally, an annual cut undertaken in Autumn, followed by an early spring cut where necessary) and (ii) leaving the largest practical uncut buffer zone alongside woodland. Before surrounding vegetation is cut, a check should be completed for desired natural regeneration species to ensure they can be protected before the cut. Arisings should be removed following the completion of the works.

2. Enhancement of Woodland Ground Flora

3.3 Targeted collection of seeds, cuttings, or transplants from high quality sites could be considered to enhance lower quality or young woodlands. This utilises the existing asset and maintains the local provenance of the plants, whilst benefiting other sites. This is a specialist task, requiring appropriate timing of seed collection, in addition to identification of quantities and the allocation of a suitable recovery time.

3. Management of Existing Woodland

3.4 Woodland management should ensure that all ancient and established woodlands are viewed in the timescale of tens and hundreds of years, and not just the present. This perspective encompasses current concerns and threats (e.g. ash dieback), future risks (e.g. succession and composition of species) and ongoing management (e.g. coppicing, pollarding, and thinning).

4. Management of Mature and Veteran Trees

3.5 There are many mature native and exotic species around the town. Mature trees are often whole ecosystems, taking generations to replace when lost, and should be protected and enhanced (e.g. leaving long vegetation and encouraging scrub growth beneath the canopy, and allowing fallen limbs to remain, where possible). Figure 2 illustrates an example of this management. Such trees also often provide a valuable cultural function; people often form connections with certain trees often defining the character of a place.

Figure 2: Illustration of mature tree management

3.6 To achieve this, heavy compaction from people and machinery should be avoided at the base of trees. The establishment of an understory beneath the tree canopy provides greater protection to the tree whilst also creating an additional ecotone. This understory also moves the tree away from harm, reducing the need for arboricultural work for health and safety purposes. Where understories are allowed to develop, benches should not be placed beneath the tree as doing so would raise the risk profile.

3.7 If possible, fallen limbs should remain beneath the tree as this is a natural process and provides benefits the tree, feeding it for many years to come. Where arboricultural work is still required, limbs and arisings may be left beneath the tree to develop this ecotone and support the tree.

5. Creation of Ponds and Scrapes

3.8 The addition of ponds and scrapes will create and enhance opportunities for bird species and small mammals.

3.9 Location is an important consideration for these features and benefits additional to ecological benefits can be generated. For example, at the Near Area of Barton Farm Country Park, an area to the south of the path through the site is often waterlogged (potentially due to run-off from the steep bank). Establishing a scrape at this location may alleviate maintenance issues and provide a reservoir for water that may otherwise be on the path.

3.10 If located in more remote or sensitive habitat, design should also consider dead hedging and scrub protection to help reduce disturbance from site users. Requesting dogs are kept on leads where the habitat is establishing or during nesting season will offer greater protection for protected species.

6. Enhancement of River Margins

3.11 Species diversity along river margins of the Bradford-on-Avon river corridor could be enhanced through local seed collections (although this may not be feasible for some species) and the redistribution of current plant stock on site through translocation (although this requires specialist contractors and can be costly to deliver at scale). An alternative may be the introduction of small cell or pot grown plants, which is often easier to implement, but is often expensive and has mixed results with establishment, particularly where there is high wildfowl pressure.

7. Development of Long Grass

3.12 Allowing the development of longer grassland areas will provide multiple benefits to biodiversity, being implemented through the introduction of a twice-yearly mowing regime.

3.13 Early interventions should be made where dominant or undesirable species are observed: left unchecked, these species can quickly take advantage, resulting in poor habitat with little biodiversity. Crisp, regularly mown areas where access or function are needed can be used to show site users that areas of long grass are intentional. Large block paths, for example, can meander through the long grass so people can walk through the meadow or grassland without trampling it. Additional species should be added slowly over time as diversity may already be present within the existing seed bank. If additional species are needed, seed collection could be completed from local sites or green hay could be collected from nearby species rich meadows.

3.14 Several areas of wood pasture and parkland surround the town, for example, immediately adjacent to the north of Bearfield and Bearfield Play Area (Figure 1). These sites may hold opportunities for restoration based on the remnant soils, and disturbance of the soils may expose the dormant seed bank. Should this not be successful, low density tree planting within areas of grassland where a longer sward height is being allowed to develop may also be considered.

3.15 Allowing long grass to develop, will increase opportunities to invertebrate species, in turn enhancing opportunities for bats, badgers, small mammals, and birds.

8. Management of Existing Meadows

3.16 Current meadow management has been noted to be effective throughout the town, with annual cuts and the removal of arisings undertaken. Once removed, arisings can be used to create habitat piles on suitable sites, providing refuge opportunities for a wide range of species, including reptiles, amphibians, and small mammals. This management could be extended to new and additional sites, where opportunities arise to do so.

9. Hedgerow Management and Enhancement

3.17 The current hedge network should be maintained and expanded where opportunities to do so are presented, due to the depth of biodiversity that hedgerows are able to support. It is also possible that some of these hedgerows are ancient features. Where it is possible and practical to do so, the three sides of the hedgerow should be cut on annual rotation, allowing species such as hawthorn and blackthorn to complete their annual cycle of producing fruits and providing an essential winter food source.

10. Buildings and Structures

3.18 Many buildings and structures offer valuable features for bats and birds, which should be identified, enhanced, and protected.

3.19 Old buildings often offer opportunities which should be protected and enhanced. Such buildings can be key sites for specialists, sometimes offering the only local refuge for rare species. Arches, roof spaces, and basements – for example – can be valuable habitats for bats and birds and are often more permanent than such opportunities offered by trees. Additionally, the varied lips and shelves can provide nesting opportunities for birds of prey, for example. Consideration should be given to any negative impact new or additional species may cause and efforts made to address these from the start.

3.20 Where there are such features adjacent to a given site, enhancements on the site should consider enhancing foraging and commuting opportunities for bats by reinforcing linear features (e.g. hedgerows) and developing additional opportunities for invertebrates through the addition of wildflower species, for example.

11. Roadside Tree and Bulb Planting

3.21 A substantial portion of the Town Council's estate comprises of roadside verges, many of which hold potential for further tree planting. In addition to ecological benefits, tree planting can reduce air pollution, traffic noise, and offer a visual screen from roads, providing an array of health and wellbeing benefits. Species choice in these areas is important and exotics should not be excluded from consideration, as they may be more suited to restricted growing space or have better resilience to emissions.

3.22 A complementary addition to a long grass regime is the introduction of bulbs along the roadside. These bulbs come up year after year and help public engagement with management changes while broadleaf species are developing in the sward. This is best achieved on mass; a commercial bulb planting machine may be suitable for many sites. These roadside areas of long grass and additional trees will reinforce flight lines and help bridge or better connect existing larger or higher quality habitats.

12. Features to support protected species

3.23 Local knowledge and records can be used to confirm protected species that are or have been recorded in the area surrounding each site, ensuring these spaces remain suitable and with features enhanced or created to allow the population to increase or utilise the site throughout the year. An example may be creation of hibernacula on or adjacent to sites known to support or reptile or amphibian populations. These can then become hotspots and champion sites for each associated species.

3.24 Installation of bird and bat boxes may also be a consideration at sites where suitable trees and buildings are present.

13. Interpretation boards and Contextual Information

3.25 Species and habitats information could be displayed for key sites to foster engagement of local communities with green space and create awareness for new interventions. The use of QR codes to link to further information on species, plans and policies, or volunteer groups for the site, may be an effective way to achieve this.

14. Creation and Retention of Dark Zones

3.26 Lighting schemes can impact a number of protect species, with bats being particularly sensitive. Several designated sites are present within the area surrounding Bradford-on-Avon, with these sites considered to be highly important for bat species (for example, Bath and Bradford-on-Avon SAC). There are also numerous old buildings throughout the town which are likely to present opportunities for bats.

3.27 Dark areas present on sites should be maintained to ensure that linear features likely to be used by foraging and commuting bats are retained. Several sites are located adjacent to or contain prominent linear features. Barton Farm Near Area, for example contains several tree lines and hedgerows which run adjacent to the River Avon and the Kennet and Avon Canal, both prominent linear features. Poulton Meadow is also divided by a well-established hedgerow and tree line, offering good opportunities for bat species.

3.28 Where lighting on sites is necessitated by public access and use of the site, lighting should be directed away from hedgerows and tree lines, in accordance with the latest Bat Conservation Trust (2018) guidelines. Tree planting may also be considered alongside linear features impacted by current lighting schemes, to enhance shading over the long-term.

15. Introduction of Grazing

3.29 It is recognised that there may be additional constraints on the feasibility of introducing grazing, some of the grassland sites offer opportunities for the periodic introduction of livestock, causing different forms of natural disturbance through grazing and trampling.

This increases vegetation heterogeneity and the number of micro-habitats and can act as a catalyst for dormant or specialist species to return.

Table 2: Summary of recommendations per site

	Additional Town Council Estate Sites														PEA Sites							
	Barton Farm: Near	Victory Field	Culver Close	Tory Trees	Moulton Drive	Slades-brook	Bearfield	Poulton Meadow	Frome Road	Shoulder of Mutton	St Aldheim	Greenland View	Spencer's Orchard	Budbury Place	Arnold's Wood	Barton Farm: Far	Becky Addy Woods	Cemetery	Cemetery Extension	Kingston Wood	North Meadow	The Strips
Development of Woodland Margins					✔						✔									✔	✔	✔
Enhancement of Woodland Ground Flora	✔			✔											✔	✔	✔			✔		✔
Management of Existing Woodland	✔			✔											✔	✔	✔			✔	✔	✔
Management of Mature and Veteran Trees	✔	✔	✔	✔		✔		✔								✔	✔			✔		✔
Creation of Ponds and Scrapes	✔															✔					✔	
Enhancement of River Margins	✔																				✔	
Development of Long Grass	✔	✔	✔		✔	✔	✔	✔							✔	✔		✔	✔			
Management of Existing Meadows							✔	✔											✔		✔	
Hedgerow Management and Enhancement	✔	✔	✔		✔	✔	✔	✔			✔							✔	✔	✔		
Buildings and Structures	✔	✔	✔					✔										✔				
Roadside Tree and Bulb Planting					✔		✔					✔	✔						✔			
Features to Support Protected Species	✔	✔	✔					✔	✔	✔	✔				✔		✔	✔	✔	✔		✔
Interpretation boards and information	✔	✔	✔					✔			✔					✔			✔	✔		✔
Creation of Dark Zones	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔												

4 DEFRA METRIC FORECAST RESULTS

Habitat Valuation Assessment

4.1 Habitat Value Assessments (HVAs) aim to establish a robust baseline for habitats at a site, which can then be used to inform management prescriptions, assess the success of mitigation, and trends in habitat condition over time, and establish real habitat targets.

4.2 HVAs can be used to measure statistically whether habitats and associated targets have been met and provide a measure of habitat trends. They can also be used to forecast potential habitat value of future enhancements and management works. Assessing the value of sites means that ecological assets can also be established.

4.3 An HVA was undertaken using the Defra Metric 2.0 (Defra, 2019), which is being adopted by several planning authorities as a tool to establish whether a development provides an enhancement. This assessment considers habitat distinctiveness and habitat value of each habitat on site and that can be incorporated into a summary report. Existing habitat information for the site has been interpreted to establish a baseline for the site.

4.4 The HVA was undertaken for each site to ascertain its current and DEFRA metric value and forecasted value based on the recommendations presented in this report. These habitat valuation scores are included in Table 3 overleaf.

Table 3: Defra Metric 2.0 assessment results for each site

Site	Feature Type	Total Feature Area or Length on Site	Current Feature Value	Forecast Feature Value	Change in Feature Value
1. Additional Town Council Estate Sites					
Barton Farm Country Park – Near Area	Habitat	2.50 ha	12.47	17.54	+ 5.07
	Linear	n/a	n/a	n/a	n/a
Victory Field	Habitat	1.48 ha	3.40	4.69	+ 1.29
	Linear	n/a	n/a	0.76	+ 0.76
Culver Close	Habitat	2.37 ha	7.74	9.95	+ 2.21
	Linear	0.12 km	0.91	0.91	0.00
Tory Trees	Habitat	0.12 ha	0.91	1.82	+ 0.91
	Linear	n/a	n/a	n/a	n/a
Moulton Drive	Habitat	2.48 ha	7.42	21.83	+ 14.41
	Linear	n/a	n/a	n/a	n/a
Sladesbrook and Bancroft Allotments and Park	Habitat	3.00 ha	19.18	23.52	+ 4.34
	Linear	0.07	0.53	0.53	0.00
Bearfield and Bearfield Play Area	Habitat	1.20 ha	5.82	13.32	+ 7.5
	Linear	n/a	n/a	n/a	n/a
Poulton Meadow and Field	Habitat	6.77 ha	65.64	72.60	+ 6.96
	Linear	0.80 km	1.01	5.17	+ 4.16

Site	Feature Type	Total Feature Area or Length on Site	Current Feature Value	Forecast Feature Value	Change in Feature Value
Frome Road Allotment	Habitat	0.19 ha	1.92	2.30	+ 0.38
	Linear	n/a	n/a	n/a	n/a
Shoulder of Mutton Allotment	Habitat	0.12 ha	1.48	1.48	0.00
	Linear	0.08 km	0.42	0.42	0.00
St. Aldheim Play Area	Habitat	0.10 ha	0.18	0.18	0.00
	Linear	n/a	n/a	n/a	n/a
Greenland View Play Area	Habitat	0.03 ha	0.15	0.17	+ 0.02
	Linear	n/a	n/a	n/a	n/a
Spencer's Orchard Play Area	Habitat	0.06 ha	0.13	0.28	+ 0.15
	Linear	n/a	n/a	n/a	n/a
Budbury Place Car Park	Habitat	0.04 ha	0.00	0.00	0.00
	Linear	n/a	n/a	n/a	n/a
2. PEA Sites					
Arnold's Wood	Habitat	0.4 ha	2.99	6.21	+ 3.22
	Linear	n/a	n/a	n/a	n/a
Barton Farm Country Park: North Meadow	Habitat	2.32	26.79	33.06	+ 6.27
	Linear	n/a	n/a	n/a	n/a
Barton Farm Country Park: Far End	Habitat	6.08	37.23	69.25	+ 32.02
	Linear	n/a	n/a	n/a	n/a

Site	Feature Type	Total Feature Area or Length on Site	Current Feature Value	Forecast Feature Value	Change in Feature Value
Becky Addy Wood	Habitat	4.13	43.46	65.15	+ 21.69
	Linear	n/a	n/a	n/a	n/a
Brooklands Field (Cemetery Extension)	Habitat	3.98	9.60	40.10	+ 30.5
	Linear	0.41	4.15	6.22	+ 2.07
Cemetery	Habitat	2.4	11.32	22.45	+ 11.13
	Linear	0.36	0.86	1.29	+ 0.43
Greenland Wood (The Strips)	Habitat	1.4	7.08	17.71	+ 10.63
	Linear	n/a	n/a	n/a	n/a
Kingston Wood	Habitat	0.6	3.68	5.52	+ 1.84
	Linear	n/a	n/a	n/a	n/a

5 LIMITATIONS OF SURVEY AND REPORT

5.1 This report records vegetation communities and wildlife found during the survey and anecdotal evidence of sightings. It does not record any plants or animals that may appear at other times of the year and were therefore not evident at the time of visit. Some species that might use the site or be apparent at other times of year, or only in certain years, would not have been detected.

5.2 This report is based on survey work collected by third parties. Ecosulis takes no responsibility for the accuracy of survey works undertaken. Some of the survey data utilised for this study are more than 12 months old, and therefore it is recommended that they are updated.

5.3 The behaviour of animals can be unpredictable and may not conform to standard patterns recorded in current scientific literature. This report therefore cannot predict with absolute certainty that animal species will occur in apparently suitable locations or habitats or that they will not occur in locations or habitats that appear unsuitable.

5.4 The data search can only provide information on species already recorded and cannot be taken to represent a complete overview of all species present in the survey site.

5.5 The advice contained in this report relate primarily to factual survey results and general guidance only. On all legal matters you are advised to take legal advice.

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Appendix I: Defra Metric Methods

Desktop Study

5.1 Bradford-on-Avon Town Council provided an array of information on species records and surveys, local and national designations, potential developments, and various other information of ecological interest.

5.2 Google Maps was accessed for aerial views of the site and used as a visual aid to help put the site into context with its surroundings and to identify any potential features of interest in the surrounding land.

5.3 The Multi-Agency Geographical Information for the Countryside (MAGIC) website was consulted for information on statutory site designations in the area.

5.4 The National Biodiversity Network (NBN) website was also consulted for information on records of protected and notable species in the area.

Defra 2.0 Metric Methodology

5.5 The Defra Biodiversity Metric 2.0 was calculated using the Calculation Tool supplied from Natural England in conjunction with the user guide from Natural England Joint Publication JP029 (July 2019). The metric is used to assess or audit the biodiversity unit value of an area of land and to calculate the losses and gains of biodiversity. The following is an excerpt of the methods from the report, it should be noted that the assessments made in this report are based on secondary data sources, with a ground-truthing completed for a couple of sites:

To measure the biodiversity value of habitats, it is first necessary to define the site boundaries and then divide into appropriate parcels if needed. Parcels are simply distinct portions of each habitat type present. The habitat type and size of these parcels, and the condition of the habitat it contains, are recorded. The metric uses standard methodologies for categorising habitats so it can be done alongside routine ecological surveying. The biodiversity unit of each habitat parcel is then calculated. To determine the unit value of a habitat parcel, we assess its 'quality'. The assessment comprises four components.

(a) Distinctiveness: A score based on the type of habitat present

(b) Condition: A score based on the quality of the habitat

(c) Strategic significance: A score based on the location of the development and or off-site work has been identified locally as significant for nature

(d) Connectivity: A score based on the proximity of the habitat patch to similar or related habitats

The Defra Biodiversity Metric 2.0 includes additional supplementary modules for habitats that are not well described by their area. These are linear habitats, for which habitat length is often a more meaningful measure of their extent than area. There are two broad categories of linear habitats:

- *Hedgerows and lines of trees*
- *River and streams*

The supplementary modules are calculated differently and have their own discrete biodiversity unit types. It is an important rule of the metric that the biodiversity units calculated through the core habitat area-based metric and each of the linear units are unique and cannot be summed or converted. When reporting biodiversity gains or losses with the metric, the different biodiversity unit types must be reported separately and not summed to give an overall biodiversity unit value.

The following steps were taken to collect the data to input into the calculation tool.

a) *Pre site-visit background checks:*
   i) *Online data searches (e.g. MAGIC) to identify any relevant Habitat Inventory Data and SSSI Boundary information. This can help to identify whether the site is within an SSSI or other statutory designation and whether there are known to be irreplaceable habitats on site. Designated sites and irreplaceable habitat impacts need to be addressed separately in accordance with existing mechanisms. The Biodiversity Metric 2.0 is not designed for use determining compensation for impacts on such sites and habitats.*
   ii) *Searching for species records (such as those held within the NBN Atlas) can give an indication of how biodiversity-rich the site and its surroundings might be. This will help determine any constraints or aspects of the site's biodiversity that may need more detailed consideration outside of the scope of biodiversity net gain. Local Environmental Record Centres (LERCs) can also be good sources of biodiversity information.*
   iii) *It is also advisable to check that recent maps or aerial images of the habitats on the site are consistent with those from recent years. They can highlight if any potential baseline degradation (i.e. the removal of habitat before development to reduce net gain costs) has occurred.*

b) *Initial walkover on the site:*
   i) *Walkover will give an impression on how the site might be split up and surveyed most effectively. During the walkover consideration to different land uses and biodiversity hotspots that may need more survey time.*

ii) *The site should be divided by habitat parcels (contiguous areas of habitats with the same type and condition) as appropriate. Site mapping can be done to do this.*

c) *Identifying habitat types present on site:*
   i) *Phase 1 habitat surveys were conducted for the site. The Biodiversity Metric 2.0 calculation tool uses the UK Habitat Classification system and includes a tool to convert Phase 1 classifications to the UK Habitat Classification.*

d) *Recording area and mapping the habitat polygon/parcel*
   i) *This will be recorded in hectares from information supplied by Bradford-on-Avon Town council on site boundaries and using satellite imagery to measure distinct habitat types.*
   ii) *Areas under 0.0001 ha are not recorded as a separate habitat parcel.*

e) *Recording condition scores to describe the quality of the habitat present:*
   i) *Recorded as High, Medium, and Low, the habitat will be surveyed for its quality in each parcel. Some parcels are split if the quality changes across the habitat type.*
   ii) *Habitat condition assessment sheets supplied by Natural England, as well as ecological knowledge, help identify the condition.*

f) *Supplementary habitat modules:*
   i) *If the site contains any of the following habitat types, then as assessment using the relevant supplementary module of the metric was used.*
      (1) *Linear Habitats:*
         (a) *Hedgerow and lines of trees – this module uses length (kilometres), height and condition*
         (b) *Rivers or streams – this module uses length (kilometres), type and nearby habitat type*
      (2) *Urban street trees:*
         (a) *This module uses stem diameter at breast height (cm) and the number of trees involved*

g) *Opportunities for onsite Habitat Creation & Enhancement:*
   i) *When visiting the site, surveyors also identified opportunities where existing habitats could be enhanced, or new habitats created.*

Once data was collected regarding the components mentioned above, the data was inputted into the calculator. This generated a biodiversity unit score for the site (detailed in Appendix III).

Appendix II: Site-Specific Management Recommendations

Key

Barton Farm Country Park - Near Area

Managment Recommendations:

0 Diverse 'hedge-edge' species noted, managment should aim to protect these.

1 Flooding of path observed. Scrapes will help retain water and reduce flooding, whilst creating a new habitat.

2 Grass rutted by mower. Recommended to leave patches of long grass and cut patches where grass is dry. This will also minimise risk of mowing wet areas.

3 Mature and overmature trees present, re-coppicing of old coppices and creating space around mature trees.

4 Retention of natural deflectors (i.e. falling trees into channel).

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Client: Bradford-on-Avon Town Council

Project: Ecological Appraisal of Town Council Estate

Title: Barton Farm Country Park - Near Area

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Figure 3

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Key

Moulton Drive

Managment Recommendations:

19 Potential for mixed bulb planting on banks of hills

20 Allow grass in centre to grow with mowed grassland either side and tree planting along roadside.

21 Potential to expand existing bulb planting

22 Less mowing, leaving areas under trees to grow longer, with mown paths and strip along road

23 Allow bramble and scrub to creep to soften edge and create new ecotone.

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Project: Ecological Appraisal of Town Council Estate

Title: Moulton Drive

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Figure 7

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Key

Victory Field

Managment Recommendations:

8 Potential for long wildflowerbed and/or hedgerow creation for additional connectivity to surrounding linear features.

9 Consider mowing areas on banks under a twice-yearly regime.

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Title: Victory Field

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Figure 4

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Key

Culver Close

Managment Recommendations:

5	Functionality important green space, maintain trees, reinforcing boundaries, hedges and tree stock, long-grasses under trees (less risk from branch drop), long grasses and uncut margins (twice per year - early and late cut).
6	Hedgerow appears highly maintained, ensure timing of hedgecuts doesn't impact nesting birds
7	Potential to implement twice yearly mowing regime, mowing up to, and around benches.
35	Bulb planting alongside path in public space.

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Title: Culver Close

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Figure 5

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Key

Tory Trees

Managment Recommendations:

27 Monitor non-native species and protect woodland structure. The site is also a potential receptor for native ground flora introduction

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Title: Tory Trees

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Figure 6

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Key

Sladesbrook and Bancroft Allotments and Park

Managment Recommendations:

33 Leave vegetation under uncut alongside percentage of long grass in parkland (dependent on current use). Enhance grassland with locally collected seeds. Potential for seating in middle with surrounding long grass with paths cut through.

34 Reinforce and maintaining existing hedges and introduce new ones.

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Title: Sladesbrook and Bancroft Allotments and Park

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Figure 8

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Key

Bearfield and Bearfield Play Area

Managment Recommendations:

29 Potential to substitute goalpost for multi-sport goal, opening rest (approx 75%) of meadow for enhancement as wildflower and long grass meadow.

30 Enhance margins and introduce long grass regime.

31 Potential for planting of small fruit trees, and creation of wildflower meadow beneath.

32 Mixed hedge to retain and reinforce.

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Title: Bearfield and Bearfield Play Area

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Figure 9

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Key

Poulton Meadow and Playing Fields

Managment Recommendations:

12 Continue to maintain meadow as per management plan

13 Trial approaches to break up the sward with scarification or light harrowing to open up the sward and expose the seed bank. Scatter patches of green hay collected from high quality sites (e.g. North Meadow)

14 Maintain current structure of hedgerow and tree line

15 Creation of scrub islands (dog rose etc.) to give permanent structure over winter, attract biodiversity and create a new ecotone

16 Good structure of hedge and mature trees around site

17 Potential for a high quality seed bank if meadow is historical

18 Opportunity for grazing to increase disturbance (sheep etc.)

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Project: Ecological Appraisal of Town Council Estate

Title: Poulton Meadow and Playing Fields

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Figure 10

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Key

Frome Road Allotments

Managment Recommendations:

10 Limited opportunity, but potential to ensure reptile refugia (i.e. compost heaps) are present to ensure resilience of species populations.

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Project: Ecological Appraisal of Town Council Estate

Title: Frome Road Allotments

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Figure 11

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Key

Shoulder of Mutton Allotments

Managment Recommendations:

25 Look for opportunities to enhance benefit to protected species that are using the golf course (i.e. reptiles) to develop resilience.

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Project: Ecological Appraisal of Town Council Estate

Title: Shoulder of Mutton Allotments

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Figure 12

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Key

St Aldheim Play Area

Managment Recommendations:

24 Limited opportunities, but consider protected species (i.e. reptile species at golf course) and introducing log piles and hibernacula. Opportunities for interpretation boards and softer margin to north.

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Project: Ecological Appraisal of Town Council Estate

Title: St Aldheim Play Area

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Figure 13

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Key

Spencer's Orchard Play Area

Managment Recommendations:

11 Consider current benefit and whether greater benefit can be gained from changing land use. Introduce low and slow growing trees (i.e. fruit trees, mountain ash). If park retained, potential to replace fence with hedgerow and grow long grass under trees.

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Project: Ecological Appraisal of Town Council Estate

Title: Spencer's Orchard Play Area

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Figure 15

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Key

Budbury Place Car Park

Managment Recommendations:

28 Limited scope for enhancement with effort perhaps better focused elsewhere. Improvements would reduce and impact parking.

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Project: Ecological Appraisal of Town Council Estate

Title: Budbury Place Car Park

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Figure 16

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Key

Greenland View Play Area

Managment Recommendations:

26 Limited opportunity due to size and function of site, planting may offer greatest benefit.

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Project: Ecological Appraisal of Town Council Estate

Title: Greenland View Play Area

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Figure 14

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