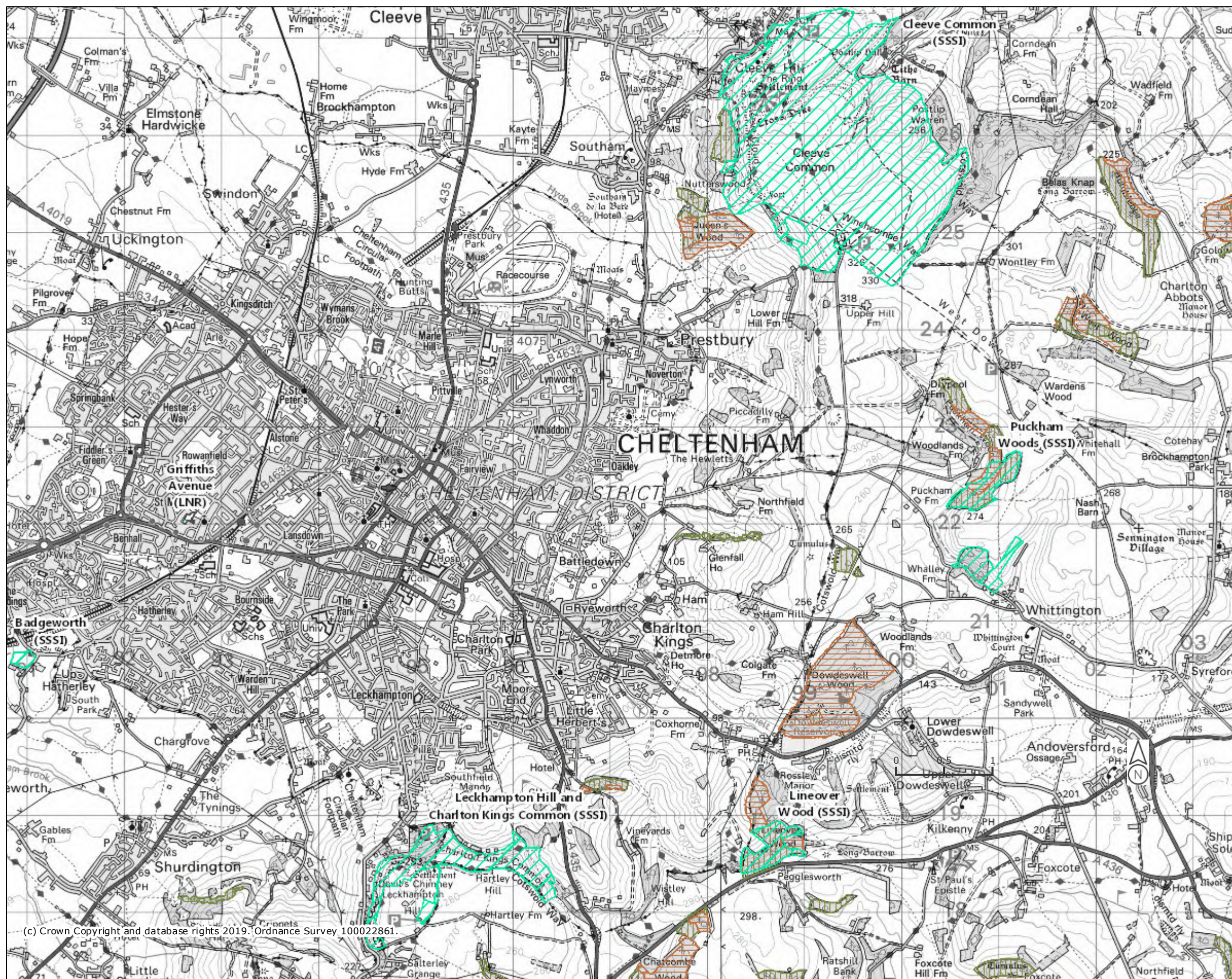


APPENDICES

APPENDIX 1

Information obtained from MAGIC



Legend

- Local Nature Reserves (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Proposed Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Potential Special Protection Areas (England)

Ancient Woodland (England)

- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland

Projection = OSGB36

xmin = 387100

ymin = 217300

xmax = 407200

ymax = 227300

Map produced by MAGIC on 23 October, 2019.
Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.



Legend

- Priority Habitat Inventory - Deciduous Woodland (England)

Projection = OSGB36
xmin = 396400
ymin = 222100
xmax = 397700
ymax = 222700

Map produced by MAGIC on 12 December, 2019.
Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

APPENDIX 2

Weather Conditions during Bat Surveys 2019

APPENDIX 2 SUMMARY OF WEATHER CONDITIONS DURING AUTOMATED BAT SURVEYS 2019

Table 7.1: Weather conditions during Automated Bat Surveys carried out between April and October 2019

Date	Maximum temperature °C	Minimum temperature °C	Precipitation	Maximum Wind Speed (mph)
April 2019				
23.04.19	21	6	No	8
24.04.19	16	10	No	18
25.04.19	13	11	No	15
26.04.19	12	8	No	17
27.04.19	12	8	No	25
28.04.19	15	8	No	10
May 2019				
22.05.19	20	10	No	9
23.05.19	22	10	No	8
24.05.19	20	10	No	8
25.05.19	22	16	No	8
26.05.19	18	16	No	15
27.05.19	18	12	No	14
June 2019				
13.06.19	16	11	No	10
14.06.19	16	11	No	12
15.06.19	17	13	No	17
16.06.19	18	13	No	16
17.06.19	18	13	No	16
July 2019				
10.07.19	23	17	No	12
11.07.19	22	16	No	10
12.07.19	22	16	No	13
13.07.19	22	16	No	10
14.07.19	22	15	No	8
15.07.19	23	13	No	9
16.07.19	25	15	No	13
August 2019				
12.08.19	18	12	No	10
13.08.19	21	12	No	10

Date	Maximum temperature °C	Minimum temperature °C	Precipitation	Maximum Wind Speed (mph)
April 2019				
14.08.19	20	15	No	15
15.08.19	21	16	No	18
16.08.19	17	16	No	20
17.08.19	22	17	No	16
September 2019				
10.09.19	17	12	No	10
11.09.19	22	15	No	16
12.09.19	22	16	No	23
13.09.19	20	8	No	9
14.09.19	22	7	No	6
October 2019				
22.10.19	15	6	No	17
23.10.19	12	2	No	6
24.10.19	15	9	No	13
25.10.19	17	11	No	37
26.10.19	9	6	No	24
27.10.19	12	6	No	7
28.10.19	9	1	No	13
29.10.19	11	3	No	20
30.10.19	12	4	No	28

APPENDIX 3

Habitats Regulations Assessment – Cotswold Beechwoods SPA

Farncombe House
Farncombe Estate
Broadway
Worcestershire
WR12 7LJ

t: 01451 870767
e: info@ecologysolutions.co.uk
w: www.ecologysolutions.co.uk



7807: LAND AT OAKLEY FARM, BATTLEDOWN, CHELTENHAM

BRIEFING NOTE: ADDITIONAL INFORMATION FOR HABITATS REGULATIONS ASSESSMENT – COTSWOLD BEECHWOODS SPECIAL AREA OF CONSERVATION

INTRODUCTION

1. This report provides the information required for a Habitats Regulations Assessment (HRA) as requested in correspondence from Natural England (dated 24th May 2019). This correspondence made reference to a previous advice letter (dated the 22nd August 2018) circulated to the three Gloucester, Cheltenham and Tewkesbury Joint Core Strategy (JCS) local planning authorities to adopt an interim approach to help discharge their duties under the Habitats Regulations 2017.
2. The information presented in this Briefing Note is for the proposed residential development at land at Oakley Farm, Battledown, Cheltenham hereafter referred to as 'the site' (see Figure 7.1) and relates to the Cotswold Beechwoods Special Areas of Conservation (SAC). The checklist of required information cited by Natural England for consideration of developments in relation to the Cotswold Beechwoods SAC is detailed below:
 - The Conservation of Habitats and Species Regulations 2017;
 - Distance between application site and nearest boundary of SAC;
 - Route to SAC;
 - Type of development (E.g. use class C3);
 - Alternative recreation resources available – on site and off site; and
 - Homeowner Information Packs (HIP).

THE CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2017

3. The Conservation of Species and Habitats Regulations 2017, commonly referred to as the Habitats Regulations, transpose the requirements of the Habitats Directive and Birds Directive into UK legislation. The Habitats Regulations aim to protect a network of sites in the UK that have rare or important habitats and species in order to safeguard biodiversity.
4. Under the Habitats Regulations, Competent Authorities have a duty to ensure that all the activities they regulate have no adverse effect on the integrity of any of the Natura 2000 sites. Regulation 63 of the Habitats Regulations requires that:

“63 (1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project, which:- must make an appropriate assessment of the implications of the plan or project for that site in view of that site’s conservation objectives.

- (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and*
- (b) is not directly connected with or necessary to the management of that site,*

63 (3) The competent authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specifies.

...

63 (5) In the light of the conclusions of the assessment, and subject to regulation 64, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).

63 (6) In considering whether a plan or project will adversely affect the integrity of the site, the competent authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which it proposes that the consent, permission or other authorisation should be given.”

5. Regulation 63 of the Habitats Regulations therefore sets out a two-stage process. The first test is to determine whether the plan / project is likely to have a significant effect on the European site, the second test (if applicable) is to determine whether the plan / project will affect the integrity of the European site.
6. In the High Court judgement passed in respect of Dilly Lane, Hartley Wintney, the judge, Mr Justice Sullivan, ruled that measures designed to avoid or mitigate adverse effects on the European site should be taken into account; if they are part of the plan or project they should be considered at the screening stage since avoiding adverse effects on the European site is precisely what they are designed to do.
7. By supporting the principle that avoidance and mitigation measures should be considered at the screening stage, the judgement avoids the need for an appropriate assessment of each and every planning application.
8. Some key concepts of the Habitats Directive and Habitats Regulations have been clarified through case law. The most pertinent cases in relation to the development proposals are the Waddenzee Judgement, the Sweetman Case and the People over Wind Judgement. These are discussed below.

Waddenzee Judgement

9. In the ‘Waddenzee’ case (C-323/17) the European Court of Justice decided that an appropriate assessment is required for a plan or project where there is a

probability or a risk that it will have a significant effect on the SPA. The Judgment states [at paragraph 3(a)] that:

“any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site’s conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects.”

10. Hence the need for an appropriate assessment should be determined on a precautionary basis.

11. The Judgment gives clarity that the test of ‘likely significant effect’ should also be undertaken in view of the European sites conservation objectives. It is stated [at paragraph 3(b)] that:

“where a plan or project not directly connected with or necessary to the management of a site is likely to undermine the site’s conservation objectives, it must be considered likely to have a significant effect on that site.”

12. Paragraph 4 of the Judgment emphasises the requirement for the appropriate assessment to rely on objective scientific information:

“...an appropriate assessment...implies that, prior to its approval, all the aspects of the plan or project which can, by themselves or in combination with other plans or projects, affect the site’s conservation objectives must be identified in the light of the best scientific knowledge in the field. The competent national authorities, taking account of the appropriate assessment of the implications...for the site concerned in the light of the site’s conservation objectives, are to authorise such an activity only if they have made certain that it will not adversely affect the integrity of that site. That is the case where no reasonable scientific doubt remains as to the absence of such effects.”

Sweetman Case

13. Further guidance in relation to the consideration of impacts in the light of the Habitats Regulations is provided in the Sweetman case (C-258/11). The case as set out by the Advocate General considered in detail the test for likely significant effect in paragraphs 50 and 51:

“50. The test which that expert assessment must determine is whether the plan or project in question has ‘an adverse effect on the integrity of the site’, since that is the basis on which the competent national authorities must reach their decision. The threshold at this (the second) stage is noticeably higher than that laid down at the first stage. That is because the question (to use more simple terminology) is not ‘should we bother to check’ (the question at the first stage) but rather ‘what will happen to the site if this plan or project goes ahead; and is that consistent with “maintaining or restoring the favourable conservation status” of the habitat or species concerned’

...

It is plain, however, that the threshold laid down at this stage of Article 6(3) may not be set too high, since the assessment must be undertaken having rigorous regard to the precautionary principle. That principle applies where there is uncertainty as to the existence or extent of risks. The competent national authorities may grant authorisation to a plan or project only if they are convinced that it will not adversely affect the integrity of the site concerned. If doubt remains as to the absence of adverse effects, they must refuse authorisation.”

14. The Court of Justice of the European Union (CJEU) agreed with the Advocate General’s conclusions, and held:

“40. Authorisation for a plan or project, as referred to in Article 6(3) of the Habitats Directive, may therefore be given only on condition that the competent authorities – once all aspects of the plan or project have been identified which can, by themselves or in combination with other plans or projects, affect the conservation objectives of the site concerned, and in the light of the best scientific knowledge in the field – are certain that the plan or project will not have lasting adverse effects on the integrity of that site. That is so where no reasonable scientific doubt remains as to the absence of such effects.”

15. Hence a plan or project may be authorised only if no reasonable scientific doubt remains as to the absence of effects. Reasonable scientific doubt will exist if the evidence is not sufficiently conclusive, or if there are gaps in the information.

People over Wind Judgment

16. A new approach with regard to the process of assessment at Regulation 63 and the view of the ECJ is provided in the ‘People over Wind’ judgment (case C-323/17), released on 12 April 2018. The ECJ ruled that when considering the test at Regulation 63(1):

“Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site.”

17. In accordance with this ruling, avoidance or mitigation measures cannot be considered at the first stage of the test (the ‘Likely Significant Effect’ stage), and can only be considered at the Appropriate Assessment stage.
18. This ruling conflicts with and overrules a long line of domestic case law (notably the Dilly Lane Decision (oao) Herts District Council v. Secretary of State for Communities and Local Government and Others [2008] EWHC 1204 (Admin)), which previously held that it is appropriate to consider such measures at the ‘Likely Significant Effect’ stage.
19. The approach adopted in People over Wind was also confirmed by the ECJ in ESB Wind Developments Ltd (Case C-164/17), which was delivered on 25 July 2018.

20. Turning to a European context, the European Commission (EC) has provided further guidance to member states as to how the precautionary principle should be considered within a structured approach in relation to the likely risk. The EC guidance sets out a number of principles which should be applied when invoking the precautionary principle. Amongst these is the principle of proportionality. The EC guidance makes it clear that this means measures must not be disproportionate to the desired level of protection and must not aim at zero risk.

Holohan Judgment

21. A recent judgment with regard to Article 6(3) of the Habitats Directive sets out that an Appropriate Assessment must *“catalogue the entirety of the habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.”*
22. The habitat types and species for which the Cotswold Beechwoods SAC is designated is set out in the ‘conservation objectives’ section below.
23. The implications of the development proposals on recreational pressures, particularly mountain biking, horse riding and uncontrolled dog walking, within the Cotswold Beechwoods SAC is assessed against the conservation objectives, which is the subject of this HRA.

Conservation Objectives

24. Natural England have produced a document that sets out the Conservation Objectives for the Cotswold Beechwoods SAC (dated 27th November 2018 [version 3]). This document sets out that the Conservation Objectives for the SAC are to

“ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- *The extent and distribution of qualifying natural habitats;*
- *The structure and function (including typical species) of qualifying natural habitats; and*
- *The supporting processes on which qualifying natural habitats rely.”*

25. The qualifying features of this SAC are set out within this document as being:

- Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*);
- Dry grasslands and scrublands on chalk or limestone; and
- *Asperulo-Fagetum* beech forests; Beech forests on neutral to rich soils.

26. Consideration has been given as to whether there would likely be any potential impact as a result of the proposed development on this SAC, in terms of the ‘Conservation Objectives’.

INFORMATION FOR HABITAT REGULATIONS ASSESSMENT

Distance to Cotswold Beechwoods SAC

27. The site is located approximately 8.7km southwest of the nearest boundary of the Cotswold Beechwoods SAC and is separated by residential development, a number of major and minor roads and extensive areas of open countryside and agricultural land (see Plan ECO1). This SAC is therefore well separated from the site.

Route to Cotswold Beechwoods SAC

28. To drive from the site to the closest car parking facility in the Cotswold Beechwoods SAC it is approximately 13km driving distance and takes 25 minutes to drive. To walk or cycle from the site to the closest access point into the Cotswold Beechwoods SAC it is approximately 10.3km and this would take approximately 2 hours and 20 minutes to walk and 52 minutes to cycle (see Plan ECO1).

Type of Development

29. The type of development is C3 (Dwelling Houses).

Alternative Recreation Resources

30. The site is surrounded by a number of suitable areas of alternative open spaces that are located between 1.5km and 6.4km (as the crow flies) from the site, each of which are described individually below.
31. **Pitville Park (unconfirmed KWS)**, located approximately 1.5km northwest of the site is an alternative open space for recreation. The closest car park is located 6.1km driving distance from the site and takes 12 minutes to drive, 1 hour and 4 minutes to walk and 22 minutes to cycle.
32. **Prestbury Grassland Key Wildlife Site (KWS)**, located 1.8km northeast of the site. The car park for this KWS is located 4.6km driving distance from the site and takes 9 minutes to drive, 1 hour and 7 minutes to walk and 30 minutes to cycle.
33. **Arle Grove Gloucestershire Wildlife Trust (GWT) Nature Reserve**, an alternative open space for recreation, and this Nature Reserve is located 2km southeast of the site. The closest car parking facility is located 3.2km driving distance from the site and takes 5 minutes to drive, 47 minutes to walk and 21 minutes to cycle.
34. **Lineover Wood SSSI** is located approximately 3.5km southeast of the site, is an alternative open space for recreation. The closest car parking facility is located 8.2km driving distance from the site and takes 10 minutes to drive, 1 hour and 37 minutes to walk and 23 minutes to cycle.
35. **Leckhampton Hill and Charlton Kings Common SSSI** is located approximately 3.5km south of the site. The common includes multiple car parks, with the closest car park located 5km driving distance from the site and takes 12 minutes to drive, 1 hour and 5 minutes to walk and 26 minutes to cycle.

36. **Crickley Hill Country Park / Crickley Hill and Barrow Wake SSSI** is located between the site and the Cotswold Beechwood SAC. The country park is located approximately 6.4km from the site includes multiple car parks. To the closest car park from the site, it is approximately 9.1km driving distance and takes 15 minutes to drive, 1 hour and 58 minutes to walk and 45 minutes to cycle.
37. A number of circular walks have also been identified in close proximity to the site at Land at Oakley Farm itself (see Plan ECO2). Four circular walks have been identified that utilise surrounding Public Right of Ways (PROW). The walks are 3km, 3.4km, 3.5km and 4.5km and it is considered that given the number of PROW it is considered that both further and shorter walks are available.
38. In addition, the site itself will include large areas of open space that could be utilised for recreation and would likely be the first choice for alternative open space given it is on the doorstep of the development.

Visitor Surveys

39. A visitor survey was carried out by Footprint Ecology ('Cotswold Beechwoods Visitor Survey 2019') on behalf of Tewkesbury Borough Council, Cotswold District Council, Stroud District Council, Cheltenham Borough Council, and Gloucester City Council in 2019 for the Cotswold Beechwoods SAC, in order to inform emerging HRAs for the Local Plans of the above councils.
40. The report concluded that current visitor use is 'low' and as such it is less likely that any adverse effects will arise as a result of the proposed development. In terms of accessing the SAC, the visitor survey report shows that those visiting the SAC on foot came from '*typically within a 2.5 km radius (median value)*', while for those travelling by car, half lived within a 8.1km radius (median value). The distributions of the nearest interviewees has been plotted within the visitor survey report, with polygons plotted around the SAC showing the distribution of 50% of interviewees, 75% of interviewees and 85% of interviewees (Map 10). This map shows that the site lies at the very edge of the 75% boundary / just within the 85% boundary, and clearly shows that half of interviewees visiting the SAC travelled from a much closer distance to the SAC (half of interviewees were from the east of Gloucester, the areas surrounding the SAC, and the very southern tip of Cheltenham). As such, it is considered unlikely new residents from the Oakley Farm site would walk to the SAC on foot, and as the majority of interviewees travel from a much closer distance to the SAC by car, it is considered that any new residents to the site would travel only infrequently to the SAC by car, with a number of other alternatives available in closer proximity. This is further evidenced by the visitor survey results which shows that 75% of dog walkers who visit the SAC daily / most days and travelled from home, travelled 2.6km or less to the SAC. For those who visit for dog walking 1-3 times a week, 75% of people who visited from home travelled 6.2km or less to the SAC. In total, 75% of visitors who visited from home, travelled 7.2km or less to visit the SAC. The report also states that '*dog walkers typically lived within a 4.4km radius (median), compared to 12.8km for walkers*', and that for the daily visitors '*half lived within 692m*'. As such, the majority of daily visitors to the SAC for dog walking live within 2.6km of the SAC, and the majority of dog walkers live within 4.4km of the SAC.

41. Therefore, as the site lies 8.7km southwest of the nearest boundary of the SAC, it is not envisioned that any new residents would visit the site daily for dog walking. In general the visitor survey report shows that most interviewees were from the east of Gloucester (the Abbeydale, Abbeymead, Barnwood and Hucclecote wards). Only 12 interviewees were from the Cheltenham District the majority of which were from the south of Cheltenham. Only five interviewees were from the east of Cheltenham, including just a single interviewee from the Battledown area (north of the site), one interviewee from Charlton Kings (south of the site), one interviewee from north of the Charlton Park area (southwest of the site), one interviewee from Pitville (northwest of the site) and one interviewee from north of Lynworth (northwest of the site). The interviewees from the Battledown area and from Charlton Kings responded that it was their first visit to the SAC, while the interviewees from the Charlton Park area and from Pitville responded that they visit the site less than once a month. The interviewee from north of Lynworth was only respondent to visit the SAC two to three times per month.
42. Given the above, it can be seen from the visitor survey that the majority of visitors, and the most frequent visitors to the SAC are from the east of Gloucester, with very few and very infrequent visitors from Cheltenham (the majority of which visit the SAC less than once a month or stated that it was their first visit). As such, it is considered unlikely that any new residents from the site would visit the SAC with any frequency, if at all.
43. For walking, 75% of people who visited the site 1-3 times a week and visited from home, travelled 3.8km or less. No values were given for those who visit daily. As the site lies 8.7km southwest of the nearest boundary of the SAC, it is not considered that new residents would visit the SAC regularly for walking.
44. With regard to visitor activities within the SAC or on other similar sites, all of the interviewees who responded that '*all their visits for the current activity took place on the Beechwoods*', all lived within 1.5km of the SAC and half of them lived within 564m. As such, it can be seen that even if new residents from the site were to visit the SAC, it is exceptionally unlikely that all of their activities (such as all dog walking activity) would be carried out on the SAC, and in fact they would be more likely to visit more than one area.
45. In terms of length of walks within the SAC, the visitor survey data shows that '*the overall average route was 5.0 km (mean) and 3.0 km (median)*', and also that 75% of visitors walked no further than 7km.
46. The visitor survey report shows that the most common reason for visiting the SAC was due to its proximity to the interviewees' home, with 20% stating this was the main reason for their visit. As such, interviewees are more likely to visit a site close to their home. As there is open space within and within the surrounding area of the site, and new residents would have to pass a number of alternative areas of open spaces before reaching the Cotswold Beechwoods SAC, it is considered that new residents are more likely to visit such sites that are closer to home than the Cotswold Beechwoods more frequently.

Homeowner Information Packs (HIPs):

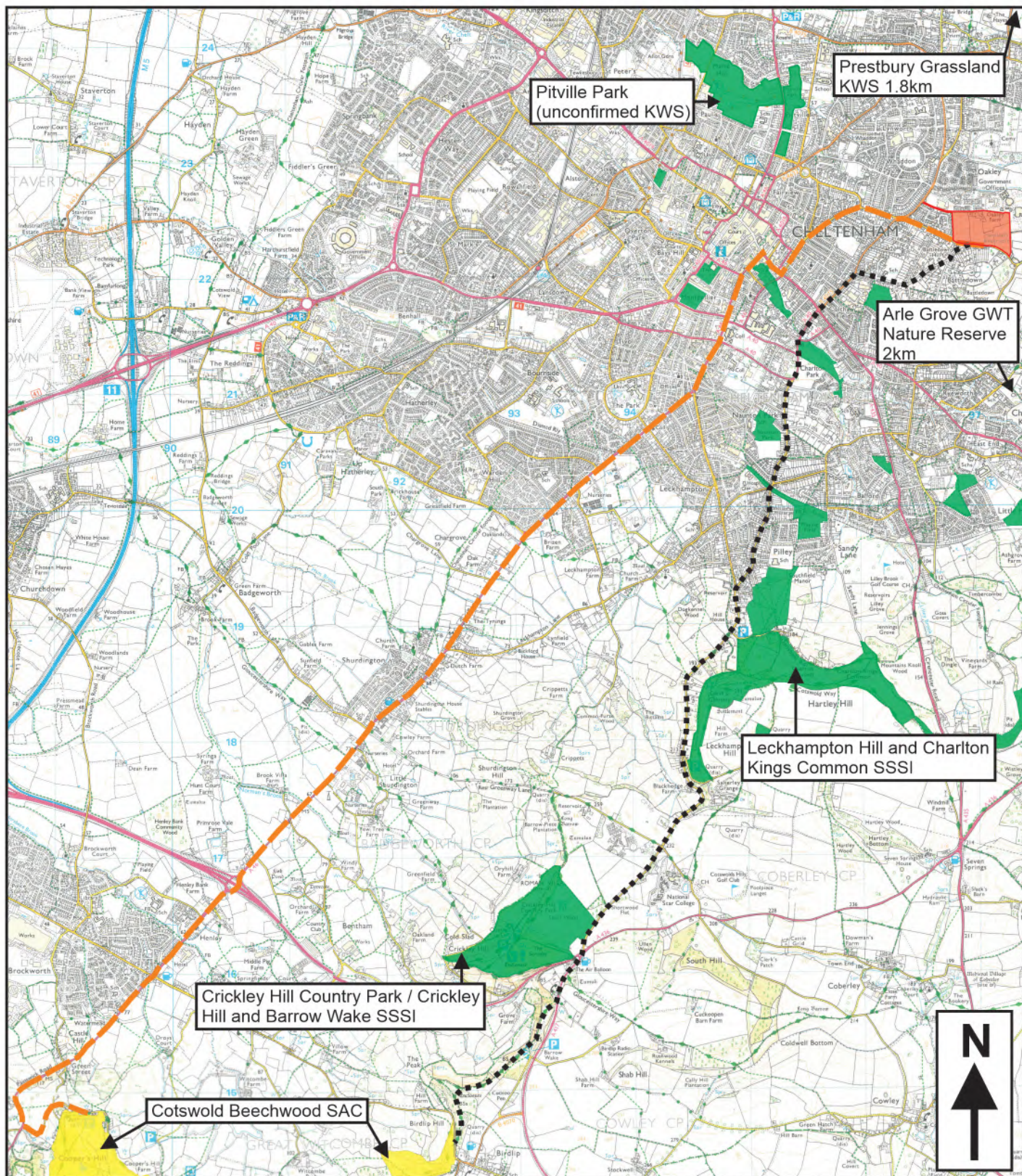
47. HIPs will be included as part of the proposed development and will give new homeowners information to help them make informed choices about where to go

for informal outdoor leisure and if they choose to visit sensitive sites, it will provide information on how to avoid impacting sensitive areas.

48. The content will include general information on the informal, outdoor recreation opportunities in relation to the site and how to help protect the places they visit. The HIPs will include specific information on nearby sensitive designated sites, which would include the Cotswold Beechwoods SAC / Cotswold Commons and Beechwoods SSSI. The HIPs can be secured by way of planning condition.

CONCLUSIONS

49. Based on the distance between the site and the Cotswold Beechwoods SAC and the number of alternative recreational resources that are closer to the site, it follows that there would not be any likely significant effects on the Cotswold Beechwoods SAC, either alone or in combination with other plans or projects, resulting from the proposed development at the Land at Oakley Farm, Battledown, Cheltenham. Nonetheless, even great certainty can be provided by the applicant's willingness to provide HIPs to new residents, the details of which can be secured by way of planning condition. As such, based on the information presented above it is considered that the development proposals at the Land at Oakley Farm, Battledown, Cheltenham would not likely affect the integrity of the Cotswold Beechwoods SAC either alone or in combination with other development, thus meeting the test of the Habitats Regulations 2017.



KEY:

- APPLICATION SITE
- ALTERNATIVE AREAS OF OPEN SPACE
- COTSWOLD BEECHWOODS SAC
- DRIVING ROUTE TO COTSWOLD BEECHWOOD TO CLOSEST CAR PARK - 13KM
- WALKING AND CYCLE ROUTE TO COTSWOLD BEECHWOOD - 10.3KM



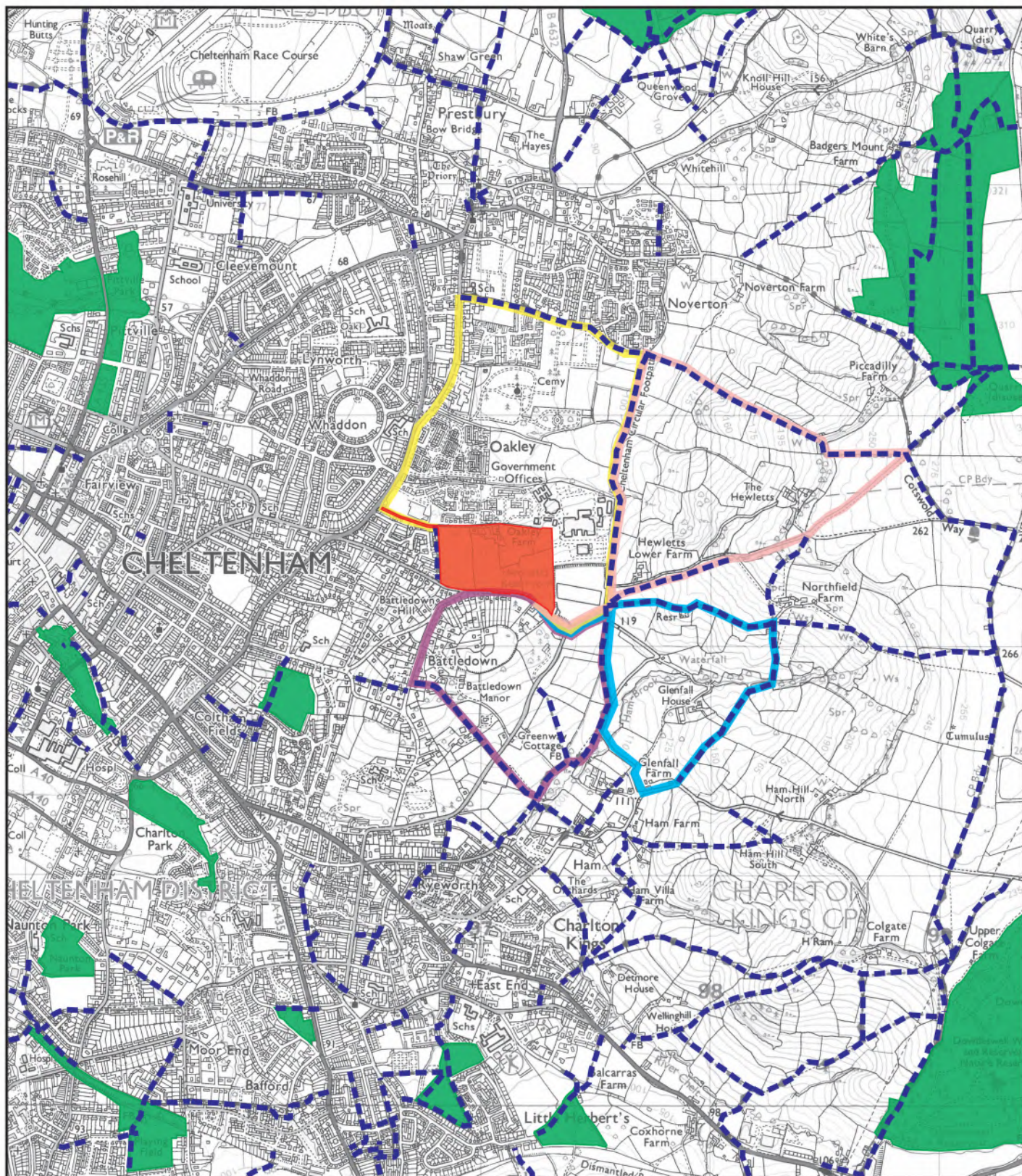
Farncombe House
Farncombe Estate | Broadway
Worcestershire | WR12 7LJ

+44(0)1451 870767
info@ecology-solutions.co.uk
ecology-solutions.co.uk

7807: LAND AT OAKLEY FARM,
BATTLEDOWN, CHELTENHAM

PLAN ECO1: ALTERNATIVE GREEN
SPACES AND DRIVING, WALKING
AND CYCLE ROUTES TO SAC

Rev: A
Dec 2019



KEY:

- APPLICATION SITE
- ALTERNATIVE AREAS OF OPEN SPACE
- PUBLIC RIGHT OF WAY (AS PER OS MAP)
- CIRCULAR WALK (A) - 3KM
- CIRCULAR WALK (B) - 3.4KM
- CIRCULAR WALK (C) - 3.5KM
- CIRCULAR WALK (D) - 4.5KM



ECOLOGY SOLUTIONS
Part of the ES Group

Farncombe House
Farncombe Estate | Broadway
Worcestershire | WR12 7LJ

+44(0)1451 870767
info@ecology-solutions.co.uk
ecology-solutions.co.uk

**7807: LAND AT OAKLEY FARM,
BATTLEDOWN, CHELTENHAM**

**PLAN ECO2: ALTERNATIVE
OPEN SPACES AND
CIRCULAR WALKS**

Rev: A
Dec 2019

APPENDIX 4

Suitable Examples of Bat Boxes

Bat Boxes

Schwegler bat boxes are made from 'woodcrete' and have the highest rates of occupation of all types of box.

The 75% wood sawdust, clay and concrete mixture is ideal, being durable whilst allowing natural respiration and temperature stability. These boxes are rot and predator proof and extremely long lasting.

Boxes can be hung from a branch near the tree trunk or fixed using 'tree-friendly' aluminum nails.



1FF Bat Box

The rectangular shape makes the 1FF suitable for attaching to the sides of buildings or in sites such as bridges, though it may also be used on trees. It has a narrow crevice-like internal space to attract Pipistrelle and Noctule bats.

Woodcrete (75% wood sawdust, concrete and clay mixture)

Width: 27cm

Height: 43cm

Weight: 8.3kg

2FN Bat Box

A large bat box featuring a wide access slit at the base as well as an access hole on the underside. Particularly successful in attracting Noctule and Bechstein's bats.

Woodcrete construction, 16cm diameter, height 36cm.



2F Bat Box

A standard bat box, attractive to the smaller British bat species. Simple design with a narrow entrance slit on the front.

Woodcrete construction, 16cm diameter, height 33cm.



APPENDIX 5

Suitable Examples of Bird Boxes

Bird Boxes

Schwegler bird boxes have the highest rates of occupation of all types of box.

They are designed to mimic natural nest sites and provide a stable environment with the right thermal properties for chick rearing and winter roosting.

Boxes are made from 'Woodcrete'. This 75% wood sawdust, clay and concrete mixture is breathable and very durable making these bird boxes extremely long lasting.



1B Schwegler Bird Box

This is the most popular box for garden birds and appeals to a wide range of species. The box can be hung from a branch or nailed to the trunk of a tree with a 'tree-friendly' aluminium nail.

Available in four colours and three entrance hole sizes. 26mm for small tits, 32mm standard size and oval, for redstarts.

1SP Schwegler Sparrow Terrace

A Woodcrete bird box which allows for several Sparrow pairs to nest in a single location. The box can either be integrated within the fabric of a building or otherwise fitted to the exterior of the building walls.

*Brood chamber dimensions:
Height: 16cm, Width: 10.5cm, Depth: 15cm*

*External dimensions:
Height: 24.5cm, Width: 43cm, Depth: 20cm*

