P24-0624

12th March 2024

Planning Policy
Cheltenham Borough Council
Municipal Offices
Promenade
Cheltenham
GL50 9SA

Dear Sir/Madam,

Representations to the Regulation 16 Consultation on the Draft Leckhampton with Warden Hill Neighbourhood Plan in respect of Land at The Nurseries, Kidnappers Lane, Cheltenham

Context

Pegasus Group are instructed to provide representations to the Leckhampton with Warden Hill Neighbourhood Plan (NP) Regulation 16 public consultation on behalf of our client, Newland Homes, and the landowner.

Our client has various land interests within the NP area, including Land at the Nurseries, Kidnappers Lane, Cheltenham. The location and extent of the Site is shown at **Appendix 1** and for the purposes of these representations, includes the land identified by the blue line boundary only.

Conformity with the Development Plan

A Neighbourhood Plan should support the delivery of strategic policies set out in the local plan.

NPPF paragraph 13 states:

> ***"Neighbourhood plans should support the delivery of strategic policies contained in local plans or spatial development strategies; and should shape and direct development that is outside of these strategic policies."***

Paragraph 29 and Footnote 16 of the NPPF state:

> ***"Neighbourhood plans can shape, direct and help to deliver sustainable development, by influencing local planning decisions as part of the statutory Development Plan. Neighbourhood plans should not promote less development than set out in the strategic policies for the area, or undermine those strategic policies.[16]"***
>
> ***"[16] Neighbourhood plans must be in general conformity with the strategic policies contained in any Development Plan that covers their area."***

Neighbourhood Plans should only include non-strategic policies.

It is noted that the purpose of the NP is to set out a series of planning policies that will be used to determine planning applications within the neighbourhood area in the period to 2031. The final year of the proposed plan period is consistent with the adopted Cheltenham Plan and the Gloucester, Cheltenham and Tewkesbury Joint Core Strategy.

A Neighbourhood Plan should contain policies for the development and use of land as if successful at examination and referendum, the Neighbourhood Plan becomes part of the statutory Development Plan. Any wider community aspirations than those relating to the development and use of land need to be clearly identifiable or should be made in a separate document.

The Neighbourhood Plan needs to be prepared positively, in a way that is aspirational and deliverable. The Neighbourhood Plan must satisfy the basic conditions as set out in the National Planning Practice Guidance (PPG) on Neighbourhood Planning (065 Reference ID:41-065-20140306).

It is necessary for a Neighbourhood Plan to meet the 'Basic Conditions' in order to progress through an Examination and progress to a community referendum. This matter is re-iterated at paragraph 37 of the National Planning Policy Framework (NPPF) and again through the PPG.

Paragraph 37 of the NPPF states:

> ***"Neighbourhood plans must meet certain 'basic conditions' and other legal requirements before they can come into force. These are tested through an independent examination before the neighbourhood plan may proceed to referendum."***

One of the seven 'Basic Conditions' set out in paragraph 8(2) of Schedule 4B to the Town and Country Planning Act 1990 is that the Neighbourhood Plan should be prepared in 'General Conformity' with the strategic polices in the adopted Local Plan for the area in which they are located. Paragraph 65 of the PPG [1] states:

> ***"The basic conditions are:***
>
> ***…***
>
> ***e. the making of the order (or neighbourhood plan) is in general conformity with the strategic policies contained in the Development Plan for the area of the authority (or any part of that area)."***

[1] Paragraph: 065 Reference ID: 41-065-20140306 Revision date: 06 03 2014

Therefore, it will be necessary for it to be prepared in general conformity with the adopted Development Plan. The critical documents from the adopted Development Plan are the Cheltenham Plan and the Gloucester, Cheltenham and Tewkesbury Joint Core Strategy (JCS).

It should be noted that the Cheltenham, Gloucester and Tewkesbury authorities are together preparing a new Strategic Local Plan (SLP), which is anticipated to be submitted to the Planning Inspectorate for examination in early 2026. It is therefore entirely possible that the adopted JCS could be superseded by the SLP within only a couple of years of the NP being 'made', if the NP were to be successful at examination and referendum (for reasons stated below, we consider that as currently drafted the NP would not be successful). This poses a risk that only a few years into its lifespan, the NP could find itself in a position where it is no longer in conformity with the strategic policies of the Development Plan. In this scenario, the NP would likely be attributed significantly less weight in decision making processes and therefore becomes a less effective policy vessel for the local community than it is presently hoped to be.

This is confirmed by the PPG[2]:

> ***"There is no requirement to review or update a neighbourhood plan. However, policies in a neighbourhood plan may become out of date, for example if they conflict with policies in a local plan covering the neighbourhood area that is adopted after the making of the neighbourhood plan. In such cases, the more recent plan policy takes precedence. In addition, where a policy has been in force for a period of time, other material considerations may be given greater weight in planning decisions as the evidence base for the plan policy becomes less robust. To reduce the likelihood of a neighbourhood plan becoming out of date once a new local plan (or spatial development strategy) is adopted, communities preparing a neighbourhood plan should take account of latest and up-to-date evidence of housing need, as set out in guidance on preparing a neighbourhood plan or Order."***

The NP does not allocate any sites for development, as confirmed at paragraph 14. With reference to the risk noted above, this is considered likely to render the NP out of date once the SLP is adopted, given that paragraph 67 of the NPPF states the following (inter alia):

> ***"Strategic policy-making authorities should establish a housing requirement figure for their whole area, which shows the extent to which their identified housing need (and any needs that cannot be met within neighbouring areas) can be met over the plan period. The requirement may be higher than the identified housing need if, for example, it includes provision for neighbouring areas, or reflects growth ambitions linked to economic development or infrastructure investment. Within this overall requirement, strategic policies should also set out a housing requirement for designated***

[2] Paragraph: 084 Reference ID: 41-084-20190509

***neighbourhood areas which reflects the overall strategy for the pattern and scale of development and any relevant allocations.*"** [our emphasis added]

Once the SLP is adopted, a housing requirement figure for the NP area will be enshrined in the adopted Development Plan. The lack of any housing allocations, and indeed the proposals to implement greater policy constraints on potentially suitable allocation sites (as detailed below) could render the NP an obstacle to the achievement of the SLP's ambitions, rather than a complementary non-strategic plan as should be the case.

It is therefore recommended that the progression of the NP is halted until the strategic policy direction of the SLP becomes clearer, through subsequent rounds of consultation. A consultation on an Issues and Options document is running concurrently with the Regulation 16 consultation on the NP, but the SLP consultation does not provide draft policies, nor propose allocations to meet the development needs of the region. It is further recommended that the NP is revised to include sufficient development allocations to meet the needs of the NP area.

Policy LWH1

This policy seeks to ensure that existing community facilities and grocery stores within the NP area are protected from changes of use and encouraged to expand where appropriate. These objectives are supported.

However, the policy also proposes the following restriction on new residential development:

> ***"New residential development within the Neighbourhood Area on sites larger than 1 hectare should not normally be permitted unless suitable local grocery shop provision exists or will be provided within 800 metres of the whole of the development."***

The effect of this policy would be to significantly limit the number of residential development sites which could come forward. Whilst it is sensible to seek to prevent the loss of existing facilities which serve the local community, the proposal to effectively mandate the provision of new grocery facilities to accompany residential developments on sites which may emerge within the NP area is far too restrictive. No evidence has been provided as part of the NP (either within the draft plan, or its evidence base) to form a robust basis for the requirement.

Sites which may otherwise be entirely suitable for residential development would effectively be required to provide a grocery store element within their scheme, in order to comply with the policy requirement. This is likely to have the effect of neutering the viability of such schemes and without robust evidence to justify the need for this policy, would hinder the central aim of the planning system – the achievement of sustainable development.

If in place earlier, this policy would likely have prevented permission being granted for allocation site MD4, which formed part of the adopted Cheltenham Plan. This site is larger than 1ha and the entirety of the site is not within 800m of a grocery store. Permission was granted by the Secretary of State on a recovered appeal (APP/B1605/W/22/3309156) on 27th February 2024.

This element of Policy WLH1 therefore runs contrary to the Basic Condition (d), which requires that Neighbourhood Plans (or Orders) contribute to the achievement of sustainable development.

As the policy would conflict with the adopted Development Plan, it fails to meet Basic Condition (d), so should therefore be revised to remove the restrictive requirement relating to distance from existing grocery stores.

Policy LWH4

This policy states:

> ***"The roles and functions of existing green infrastructure identified in Figure 12 and Appendix 2 should be positively considered in new proposals for development. Where feasible, new development should contribute through onsite provision to the maintenance and enhancement of local green infrastructure roles and functions.***
>
> ***Future objectives for the maintenance and improvement of Leckhampton with Warden Hill Neighbourhood Plan Area green infrastructure should also be supported through developer contributions where appropriate."***

Area 13 as shown at Appendix 2 to the NP relates to Land East of Kidnappers Lane. Whilst the policy wording clearly supports development of sites affected by the policy designation (which is welcomed and encouraged), the policy does not appear to serve a useful purpose given the existence of INF3 within the JCS and G12 – G13 within the Cheltenham Plan. JCS Policy INF3, in particular, has more in-depth requirements for development proposals which are not expanded upon by LWH4.

JCS Policy INF3 states:

> ***"1. The green infrastructure network of local and strategic importance will be conserved and enhanced, in order to deliver a series of multifunctional, linked green corridors across the JCS area by:***
>
> ***i. Improving the quantity and / or quality of assets;***
>
> ***ii. Improving linkages between assets in a manner appropriate to the scale of development, and***
>
> ***iii. Designing improvements in a way that supports the cohesive management of green infrastructure;***
>
> ***2. Development proposals should consider and contribute positively towards green infrastructure, including the wider landscape context and strategic corridors between major assets and populations. Where new residential development will create, or add to, a need for publicly accessible green space or outdoor space for sports and recreation, this will be fully met in accordance with Policy INF4. Development at***

Strategic Allocations will be required to deliver connectivity through the site, linking urban areas with the wider rural hinterland

3. Existing green infrastructure will be protected in a manner that reflects its contribution to ecosystem services (including biodiversity, landscape / townscape quality, the historic environment, public access, recreation and play) and the connectivity of the green infrastructure network. Development proposals that will have an impact on woodlands, hedges and trees will need to include a justification for why this impact cannot be avoided and should incorporate measures acceptable to the Local Planning Authority to mitigate the loss. Mitigation should be provided on-site or, where this is not possible, in the immediate environs of the site

4. Where assets are created, retained or replaced within a scheme, they should be properly integrated into the design and contribute to local character and distinctiveness. Proposals should also make provisions for future maintenance of green infrastructure.

This policy contributes towards achieving Objectives 4, 6, 7 and 9."

All issues covered by the NP Policy LWH4 are addressed within the adopted INF3 and as such, the proposed policy serves no useful purpose. In order to avoid the risk of convoluting and overcomplicating the decision-making process, it is recommended that the policy is removed from the NP.

Given that the proposed policy would simply duplicate adopted policy and guidance of the LPA, it is considered unnecessary for it to be included within the NP.

Site Specific Representations

Although the NP as currently drafted does not propose any allocations, for the reasons given above, the allocation of housing sites within the NP area is considered essential. The NP should be revised to include a sufficient quantum of allocated sites to meet the needs of the NP area over the plan period.

Newland Homes control Land at The Nurseries Kidnappers Lane, and are well positioned to deliver a housing scheme on the Site within the next five years. Indeed, full permission for the residential development of the nursery site was granted by the LPA in February 2024 (LPA Ref: 22/02205/FUL). The consent allows for a development comprising:

"Demolition and clearance of existing buildings to allow for a residential development comprising 13no. net zero carbon dwellings with associated access, car parking, internal roads and footpaths, open space, landscaping and other associated works and infrastructure"

The grant of permission allowed for the development of a significant portion of our client's land interests but left a significant portion of land within their control untouched (land within the blue

line boundary). It is considered that this land has significant untapped potential to deliver sustainable development to meet the needs of the NP area.

Site Description

The Site lies on the southwestern side of Kidnappers Lane, within the Leckhampton area of Cheltenham. Positioned approximately 2km to the southwest of the town centre, the Site lies adjacent to several developed plots, including long-established residential properties Peacecroft, Cornerways and Long Acre to the north, Sheepshead Row and Field Cottage to the south, and more recent development sites immediately opposite the Site on the eastern side of Kidnappers Lane (13/00334/OUT, 21/00847/REM & 22/00535/FUL), and immediately adjacent to the Site (identified by the red line boundary) (22/02205/FUL).

The land comprises an irregularly shaped plot located to the south of "The Nurseries" (an existing two-storey dwelling), and an approved site for 13 zero carbon homes (22/00205/FUL). The land also benefits from mature vegetative boundaries, which provides a screening effect around the majority of the perimeter. Although separate from the consented development site, the Site could equally benefit from the approved access for 22/00205/FUL, amongst other technical aspects.

The Site also lies in relatively close proximity to the Miller Homes allocation site MD4, on which permission for 350 dwellings, open space, cycleways, footpaths, landscaping, access roads and other associated infrastructure was granted by the Secretary of State following a recovered appeal in February 2024.

Indicative Proposals

As evidenced by the recent grant of permission (22/00205/FUL), the consented site immediately adjacent to the north will comfortably accommodate a 13-unit zero carbon homes scheme. That development will be served by two vehicular accesses off Kidnappers Lane, with appropriate levels of parking, garden space and landscaping to integrate the development into the surrounding context. In accordance with local requirements, 40% of the units (5 units) will be affordable housing.

It is suggested that the unconsented portion of the Site would also suitably accommodate residential development. No plans of such a proposal have been produced at this stage but given the in-principle and technical findings of the LPA in relation to 22/02205/FUL, the development potential of the site warrants further examination.

Constraints to Development

The land is not within the Principal Urban Area, as currently defined for the purposes of the JCS. Under the current Development Plan, this is a constraint to development on the Site, as JCS policy SD10 restricts the development of market housing in Cheltenham Borough outside of the Principal Urban Area. The emerging SLP therefore represents an opportunity to remedy this and representations to this effect have been submitted to the regional LPAs in parallel with these representations to the NP.

The unconsented portion of the Site also lies within an area designated as Local Green Space (LGS), which is a further policy constraint to the development of the land. Policy GI1 of the Cheltenham Plan provides policy protection for LGS akin to the protection of Green Belt sites. Very special circumstances are required to justify the development of LGSs, as per the provisions of GI1. In the case of Land at The Nurseries, whilst the unconsented portion of the Site lies within the LGS designation, there are considered to be sufficient grounds for its release from the LGS designation. The evidence produced within the evidence base to the Cheltenham Plan (which concerned the designation of LGSs) did not robustly demonstrate that the Site was demonstrably special to a local community. This point is made solely in relation to the Site – it is accepted that the other parcels of land which form the wider LGS may accord with the relevant criteria for designation. Despite the findings of the Inspector when examining the Cheltenham Plan, it is also considered that the LGS designation at Leckhampton may well constitute an "extensive tract of land". This would be contrary to Paragraph 106(c) of the NPPF. Whilst there is no hard and fast rule as to what may form an extensive tract of land, the examining Inspector is considered to have erred on this point and Pegasus Group are aware of other decisions where Inspectors have found smaller parcels of land to fall foul of this criterion. The removal of the Site from the LGS designation is therefore considered to be justified.

The boundary to the Cotswolds AONB is located to the south of Church Road, which itself lies to the south of the Site. It is possible to experience views from the AONB towards the Site, from the hills approximately 1.5km to the southeast around the Devil's Chimney. However, it must be noted that any views from this setting would be in the context of a view across the generally built-up landscape of Cheltenham and its surrounds.

A Landscape and Visual Appraisal (LVA) (**Appendix 2**) was prepared by Chartered Landscape Architects MHP in support of the recent application on the consented part of the site. This document was subject to independent review by third party landscape consultants appointed by the LPA and found to be acceptable. Whilst the assessment will inevitably differ between the consented and unconsented parts of the Site, there is no clear evidence that a different conclusion would be reached.

There are no features of historic interest on the Site, or in the local vicinity. There are a scattering of heritage assets located to the south of the Site, including the Grade II* listed Church of St Peter, but none of these likely to be adversely impacted by a sensitively designed development given the level of separation involved. This aligns with the advice given in the Built Heritage Assessment (**Appendix 3**) prepared by Pegasus Group in support of the recent application, which concluded that the development of the now consented part of the site would result in no harm to the significance of heritage assets.

The consented part of the Site has been subject to an Ecological Impact Assessment (**Appendix 4**) and a Biodiversity Net Gain Assessment, undertaken by Ethos Environmental Planning. The Ecological Impact Assessment concluded that assuming the implementation of effective mitigation measures, as set out in the report, no significant adverse ecological effects were predicted. The Biodiversity Net Gain Assessment demonstrates that the consented scheme would achieve a greater than 10% biodiversity net gain. Once again, there is no evidence to suggest that a different conclusion would be reached in respect of the unconsented part of the site.

The Site lies entirely within Flood Zone 1, and the Government's online mapping also shows that the Site is at a very low risk (<0.1% chance) of experiencing flooding from surface water each year. As such, flooding and drainage considerations are unlikely to prevent any further development of the site.

The Site has not had a previous use which is likely to have resulted in contamination of the land and there are no known or anticipated geotechnical constraints.

Safe and suitable access to the consented development is achievable, as demonstrated within the Transport Statement that accompanied the recent planning application prepared by specialist consultants Tonks Consulting**.** A development on the unconsented part of the site could feasibly utilise the same access point as approved, without detrimental impact on the highway network.

Overall, it is considered that there are no practical challenges to the development of the Site for residential purposes. The only barriers are those presented by planning policy, which the NP has the opportunity to remedy by supporting the further development of the site as an allocation.

Benefits of the Development

An expanded housing scheme on the Site would have the potential to make a meaningful contribution to the supply of housing in the NP area, with a significant proportion of affordable housing (40%). These are substantial benefits which clearly align with the Government's stated intention of significantly boosting the supply of housing (see Paragraph 60 of the NPPF).

The NPPF at paragraph 70 is also supportive of a range of sites and refers to the importance of small and medium size sites which can typically deliver more quickly than strategic sites.

Further development would deliver economic benefits during both the construction and operational phases of the scheme. An expanded housing scheme would result in both direct and indirect employment associated with the construction process, as well as the associated output to the local economy. Once construction work ceases and the scheme moves into the operational phase, households within the development will themselves contribute to the local economy and provide additional Council Tax revenue. These economic benefits align with JCS Policy SP2(1), which seeks to focus development at Gloucester and Cheltenham to support their economic roles as the principal providers of jobs, services and housing within the JCS area.

The provision of additional housing is also a social benefit which supports the growth of the local community and will ensure continued support for existing services and facilities.

Being sustainably located, with good access to Cheltenham's centre and the many public transport links to the surrounding region, the development would also result in less pressure on the highway network than development away from the region's urban centres. Occupiers of the development would be able to access local services and facilities without the need to rely on private transport and indeed, the use of public transport would likely be greater than would be expected in more rural locations. The site benefits from proximity to The High School, Warden Hill Primary School and Leckhampton C of E Primary School, all within walking distance. There are a number of local shops

along Leckhampton Road to the east and Salisbury Avenue to the northwest. Morrisons superstore is located further to the west off Caernarvon Road. The Greatfield and The Wheatsheaf pubs are located to the west and east of the site, respectively. The Site also benefits from excellent connections into the centre of Cheltenham via public transport or private vehicle, which offers a multitude of employment opportunities.

The indicative proposals are for 100% zero carbon homes, which would far exceed existing requirements for new builds and would greatly help with the Government's target of being a net zero carbon economy by 2050. Given the success of the 'Pear Trees' development adjacent to the Site, there is no reason to suggest that Newland Homes could not deliver another successful zero carbon scheme.

Newland Homes has built a reputation for delivering quality, low-impact homes. Cheltenham Borough Council and the Leckford and Warden Hill Parish Council have recently praised the Newland Homes development 'Pear Trees', which lies adjacent to the Site. Newland Homes were also recognised for the St George's Mead development in Semington, winning the Best Sustainable Development award at the WhatHouse? Awards 2023.

The Site therefore represents an exciting opportunity to deliver a sustainable development, which accords with the central aim of the planning system.

Deliverability

Paragraph 69 of the NPPF requires that planning policies identify a supply of specific, deliverable sites for five years after adoption and specific, developable sites or broad locations for growth for the subsequent years.

Deliverability and developability are defined further at Annex 2 of the NPPF. In order to be 'deliverable', residential development sites should be available now, offer a suitable location for development immediately and have a realistic prospect that housing will be delivered within five years.

To be considered 'developable', a site should be in a suitable location for housing with a reasonable prospect they will be available and could be developed at the point envisaged.

At the very least, given that the consented development on the site is a detailed (i.e. 'full') planning permission, this portion of development should be considered deliverable in accordance with the definition given at Annex 2 of the NPPF.

The remainder of the Site is considered to be developable, but the evidence also strongly indicates that the Site also meets the definition of deliverable. The Site is available immediately, with a recognised housebuilder, Newland Homes, in control of the land and able to release this for development without legal complications. The Site, as set out above, is positioned in a location which is suitable for residential development, being well related to the urban centre of Cheltenham and lacking site-specific technical blockers to development. Newland Homes are ready to act

immediately and would expect to deliver this site within five years following the grant of planning permission assuming the site is allocated for development.

The LPA has a duty to deliver at least 10% of housing on sites of 1h or less in its emerging plan. Although this site, in total, is in excess of this, it is very much at the lower/smaller end of sites that will be put forward. There is emphasis on enabling sites by SME's given the certainty of delivery and higher quality nature of the homes they provide and this should be considered in the context of site selection.

Conclusion

The Site offers a clear opportunity to locate new homes in a sustainable location within Cheltenham, without presenting any show-stopping technical constraints. The local built context has changed significantly over recent years following recent grants of planning permission for other schemes and it is considered that a sensitively designed residential allocation would have no problem integrating with the now established character. The Site is a suitable, available and deliverable opportunity to meet the housing needs of the NP area and its allocation within the emerging plan is strongly encouraged.

We trust that these representations will be taken into account as the emerging NP progresses.

Yours faithfully,

[redacted]

[redacted]

Principal Planner

[redacted]

Enc.
Appendix 1 – Site Location Plan
Appendix 2 – Landscape and Visual Appraisal (22/00205/FUL)
Appendix 3 – Built Heritage Assessment (22/00205/FUL)
Appendix 4 – Ecological Impact Assessment (22/00205/FUL)

Appendix 1 – Site Location Plan

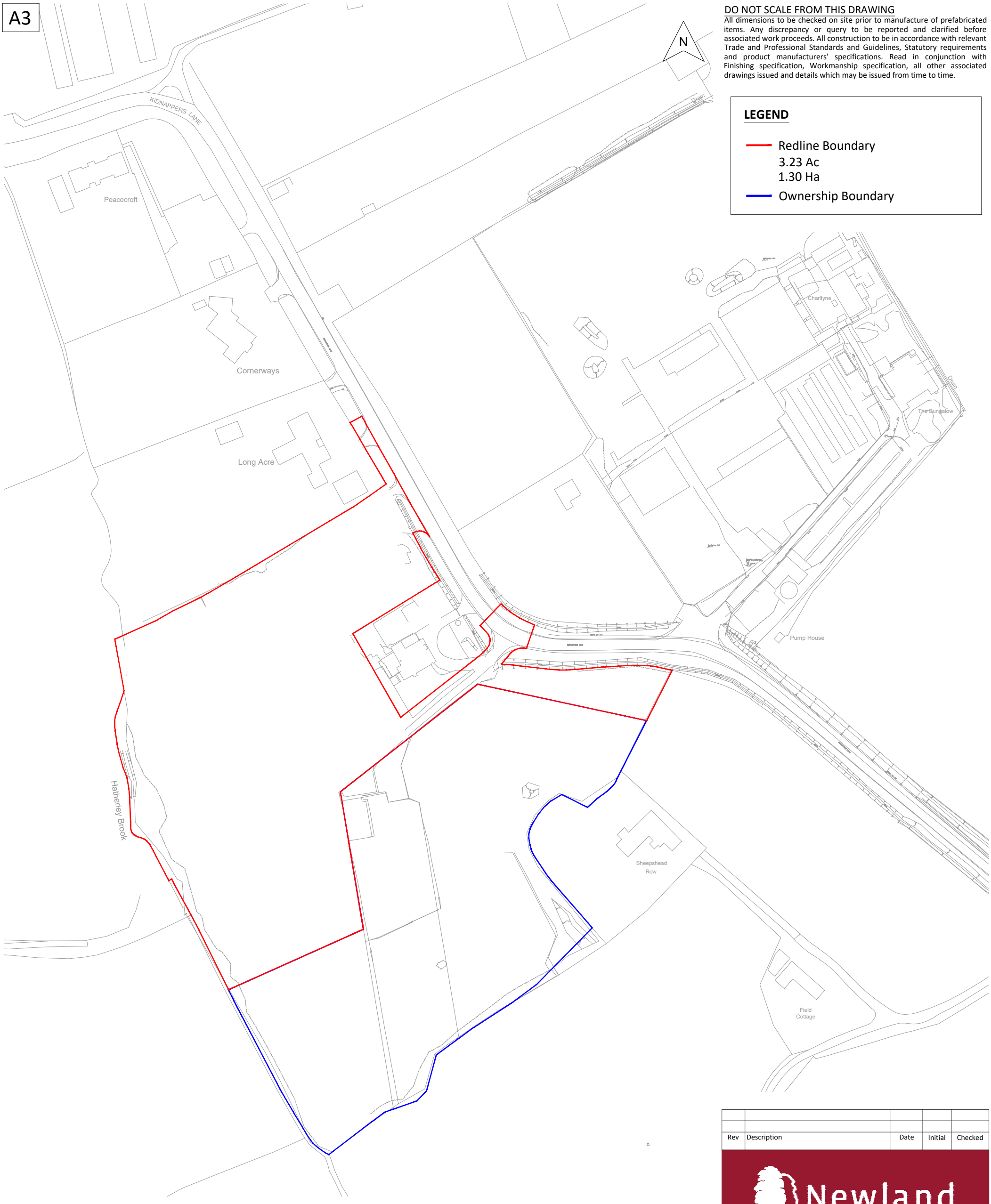
A3

DO NOT SCALE FROM THIS DRAWING

All dimensions to be checked on site prior to manufacture of prefabricated items. Any discrepancy or query to be reported and clarified before associated work proceeds. All construction to be in accordance with relevant Trade and Professional Standards and Guidelines, Statutory requirements and product manufacturers' specifications. Read in conjunction with Finishing specification, Workmanship specification, all other associated drawings issued and details which may be issued from time to time.

LEGEND

- Redline Boundary
  3.23 Ac
  1.30 Ha
- Ownership Boundary



Rev	Description	Date	Initial	Checked

Newland HOMES

Land at The Nurseries, Kidnappers Lane

Location Plan

CC
Drawn

1:1250@A3
Scale

Nov 2022
First issue

888-01
Drawing No.

-
Revision

0M 25M 50M 100M

Appendix 2 – Landscape and Visual Appraisal (22/00205/FUL)

LANDSCAPE AND VISUAL IMPACT ASSESSMENT

THE NURSERIES, KIDNAPPERS LANE, LECKHAMPTON

CHARTERED LANDSCAPE ARCHITECTS mhp

Document Control		Author	Checked
Status:	V2	Amanda Price CMLI	[redacted]
Date:	December 2022		

The Nurseries, Kidnappers Lane, Leckhampton. –Landscape and Visual Impact Assessment

1.1 Introduction and Scope

MHP Design Ltd Chartered Landscape Architects were instructed by Newland Homes Ltd to produce a landscape and visual impact assessment as a two stage assessment to inform and test proposed development referred to as The Nurseries, Kidnappers Lane, Leckhampton.

The first stage of the assessment informed the evolution of an illustrative layout so that it could respond to local landscape and visual sensitivities and incorporate both embedded and additional mitigation as appropriate. The second stage confirmed the landscape and visual impacts of the development proposals (with mitigation in place) to inform decision makers.

MHP Design Ltd have undertaken previous landscape and visual assessment work within the wider immediate location and are familiar with the landscape and visual sensitivities of the site's context. This knowledge of the site and its contextual area was used to inform the scope of the assessment.

It is important to note at the outset the wider location including Kidnappers Lane margins, have been subject of extensive new development which has changed the landscape and visual baseline in recent years and continues actively to create change in the landscape. Wider planned development will also contribute to this process of urban evolution within this location. As such the published landscape character assessments need to be considered in the context of recent and planned changes so that the baseline against which landscape and visual assessment is made is robust and current.

This landscape and visual impact assessment has been undertaken in accordance with 'Guidelines for Landscape and Visual Impact Assessment' 3rd Edition and current guidance provided by the Landscape Institute and undertaken by Chartered Landscape Architects.

1.2 Site location and site description:

The site consists of land and outbuildings formerly used for horticultural purposes associated with a red brick two storey dwelling off Kidnappers Lane. The land is generally open but has a belt of well-established coniferous trees along its frontage with Kidnappers Lane. The western/ south western boundary is formed by Hatherley Brook and extensive riparian vegetation that grows along the watercourse. The brook and the vegetation separate the site from the new comprehensive school that has recently been constructed to the west of Hatherley Brook.

The southern boundary is generally open and demarcated with post and rail fencing with hedgerow along the far south eastern corner. The northern boundary is formed by domestic hedge and established trees which separate the land from the adjoining domestic property.

The established dwelling (The Nurseries) within the site does not form part of the development proposals so is excluded along with an area of surrounding garden.

The land is gently sloping towards Hatherley Brook from Kidnappers Lane. Access to the property is also from Kidnappers Lane

Please refer to Figure 1 for the site location, context, designations and Figure 2 for viewpoint location plan.

1.3 Wider contextual features

The development of the new comprehensive school and its external areas is a significant feature of the immediately adjoining landscape to the west. Recently approved residential development currently under construction is located almost immediately to the north and east of Kidnappers Lane. Existing traditional, residential properties (and Kindergarten/nursery - Nursery Rhymes Day Nursery) are located immediately to the north west of the site and form a linear pattern of settlement along Kidnappers Lane into which the site forms a part.

To the south and south east of the site are a number of small scale paddock areas, some of which have now been extensively planted with trees.

Within the wider area to the site, extensive development of the local highway infrastructure is progressing as supporting infrastructure to the school, approved development and allocated land for development. Although Kidnappers Lane remains unchanged in its alignment, the introduction of cycleways and lighting improvements are introducing urbanising features with effects on the semi urban character of the lane.

1.4 Development Proposals being assessed:

This assessment considers development proposals for up to 13 new homes in 12 dwellings provided with gardens, garages and/or external carparking. Areas of public open space are located to the south of the development in which a proposed SuDS attenuation basin is also accommodated.

Access is from Kidnappers Lane, utilising an existing track and access to the lane. Detailed landscape proposals focus a strategy on a natural approach with proposed native trees, shrubs and grassland intended to increase and enhance local biodiversity.

The planning layout is illustrated below:

1.5 Context & Designations:	
Greenbelt	No
Area of Outstanding Natural Beauty	No, but the boundary to the Cotswolds AONB is located south of Church Road to the south of the study site. Refer to Figure 1
Settlement Boundary	The site lies outside of the Principal Urban Area of Cheltenham
Listed buildings	Not on site
Registered Park and Garden	No
Conservation Area	No
Tree Preservation Orders and ancient or veteran trees	Unknown

Open access land/public rights of way	Yes. Lotts Meadow located to the north east of the site is identified as local green space and has a number of public rights of way which cross it. Public Rights of Way are also located to the south east of the site including the Cheltenham Circular Footpath.
Valued Landscape	The site itself is not identified as a valued landscape but it is acknowledged that it falls within a broader landscape which is identified as valued with regard to Paragraph 174 of the Framework.
2.0 Landscape legislation context	
2.1 National Planning Policy Framework (NPPF)	
Paragraph 174	Planning policies and decisions should contribute to and enhance the natural and local environment by: a) Protecting and enhancing valued landscapes, sites of biodiversity or geographical value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); b) Recognising the intrinsic character and beauty of the countryside, and the wider benefits of the best and most versatile agricultural land, and of trees and woodland;
Paragraph 176	Great weight should be given to conserving and enhancing landscape and scenic beauty in National parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues.
2.2 Joint Core Strategy Adopted December 2017	
Policy SD6	Landscape. 1. Development will seek to protect landscape character for its own intrinsic beauty and for its benefit to economic, environmental and social wellbeing;

	2. Proposals will have regard to the local distinctiveness and historic character of the different landscapes in the JCS area, drawing, as appropriate, upon existing Landscape Character Assessments and the Landscape Character and Sensitivity Analysis. They will be required to demonstrate how the development will protect or enhance landscape character and avoid detrimental effects on types, patterns and features which make a significant contribution to the character, history and setting of a settlement or area; 3. All applications for development will consider the landscape and visual sensitivity of the area in which they are located or which they may affect. Planning applications will be supported by a landscape and visual impact assessment where, at the discretion of the local planning authority, one is required. Proposals for appropriate mitigation and enhancement measures should also accompany applications.
Policy SD7	The Cotswolds Area of Outstanding Natural Beauty. All development proposals in or within the setting of the Cotswolds AONB will be required to conserve and where appropriate, enhance its landscape, scenic beauty, wildlife, cultural heritage and other special qualities. Proposals will be required to be consistent with the policies set out in the Cotswolds AONB Management Plan.
2.3 Cheltenham Plan Adopted July 2020	
Policy D1: Design	Development will only be permitted where it: a) adequately reflects principles of urban and architectural design; and

	b) complements and respects neighbouring development and the character of the locality and / or landscape.
Policy L1: Landscape and Setting	Development will only be permitted where it would not harm the setting of Cheltenham including views into or out of areas of acknowledged importance.
Policy GI1: Local Green Space	Development will not be permitted within a Local Green Space, designated either within the Cheltenham Plan or an approved Neighbourhood Plan, unless there are very special circumstances which outweigh the harm to the Local Green Space. Particular attention will be paid to the views of the local community in assessing any development proposals that affect a designated Local Green Space.
Policy GI3: Trees and Development	Development which would cause permanent damage to trees of high value (Note 1) will not be permitted. The following may be required in conjunction with development: a) the retention of existing trees and b) the planting of new trees and c) measures adequate to ensure the protection of trees during construction works.
Policy CI1: Securing Community Infrastructure Benefits	Development proposals will only be permitted where adequate community infrastructure capacity exists, or where additional capacity is capable of being provided as part of the development without unacceptable impacts on people or the environment. In order to secure community infrastructure improvements, the Council will employ planning obligations as necessary and appropriate. Obligations may relate to:

	a) affordable housing b) green infrastructure, including open space c) suitably designed and located play, recreation, sport and leisure facilities d) education provision e) broadband infrastructure provision
2.4 Leckhampton with Warden Hill Parish Council Neighbourhood Plan 2021 - 2031	
Policy LWH3 Protecting Local Green Space	The following local green spaces are designated in accordance with paragraphs 99 and 101 of the NPPF in the Cheltenham Local Plan, the Leckhampton Fields LGS designation is also supported in the Joint Core Strategy examination has the Inspector's recommendation: a) The Leckhampton Fields, Development will only be permitted in very special circumstances, when potential harm to the local green space by way of inappropriateness, and any other harm, is clearly outweighed by other considerations. Policy LWH3D: Any development must preserve the semi rural character of Kidnappers Lane between Vineries Close and Farm Lane…
Policy LWH4 Protecting Other Open Spaces and Amenities	Development that would result in the loss of small open spaces within the Leckhampton with Warden Hill Parish would only be supported when: a) The green space is not part of the original housing development design which is supporting and encouraging children's recreation and sports; b) Equivalent or better provision is provided elsewhere within a suitable location in Leckhampton with Warden Hill Parish, access to young children needs to be considered carefully;

	c) It can be clearly demonstrated by the applicant that the open space no longer performs a useful open space function in terms of the local environment, amenity, or active public recreation use; Allotments should be protected from development in accordance with the Cheltenham Local Plan
Policy LWH5 Conserving and Leckhampton's Valued Landscape	New development should conserve and enhance the valued landscape by: (a) Conserving and enhancing the landscape setting, landscape features and settlement pattern of Leckhampton village; (b) Conserving and enhancing the Cotswold AONB and its setting; (c) Conserving and enhancing the area's woodland and orchards; (d) Conserving and enhancing mature trees and hedgerows, or where removal is proposed as a last resort, offsetting by way of replacement planting of native species is provided elsewhere on- the site or within the neighbourhood plan area; (e) Retention and enhancement of open watercourses, in particular Hatherley Brook and Moorend Stream; (f) Where new planting and landscaping is proposed it should use native species and be designed in such a way so as to ensure that it is suitable when considered in the wider local landscape, and where appropriate, links to existing woodland and hedgerows; (g) Taking account of the impact of the development on significant views detailed in reference 4; (h) Where opportunities arise creation of new views and vistas; (i) Seek to minimise the encroachment of development into visually exposed landscapes and where development

	is proposed on the edge of settlements, it enhances views of the settlement edge from the surrounding countryside and does not lead to inappropriate incursion into the surrounding countryside by reason of its siting, design, materials or use of landscaping; and by (j) Seeking to conserve and enhance the integrity and fabric of historic buildings and their settings, particularly where new uses are proposed through the use of appropriate styles and sustainable locally distinctive materials. (k) Leckhampton Hill and Cotswold Scarp and across the Leckhampton Fields
2.5 Other Legislative factors	
Countryside and Rights of Way Act:	No public rights of way or public access exist across the site. There are several local public rights of way within the wider local landscape and immediate context. **Figure 2** identifies the nearest Public Rights of Way.
2.6 Policy Summary	

Existing national and local policies do not restrict development of the study site where its design is sympathetic to local visual amenity and the semi-rural character of the area.

The site does not fall within a designated landscape and the development footprint is itself not identified as being a valued landscape. The development footprint within the main site does not form part of the local green space designation but the proposed open space provided at the southern end of the proposal does fall within the designated local green space. As such development of the site should protect the landscape character in this semi-rural location and protect the visual amenity of local views. The Neighbourhood Plan identifies value attributed to Local Green Space. The study site lies within the setting of the Cotswolds AONB so development must also ensure that views to and from the AONB are not harmed by development.

3.0 Landscape Character

3.1 National Landscape Character Context

National Character Area	NCA 106 Severn and Avon Vales

The site is located within the National Character area 106 Severn and Avon Vales, as shown on the Natural England National Character Area Map. Key characteristics of the Severn and Avon Vales character area are as follows:

- A diverse range of flat and gently undulating landscapes.
- Prominent oolitic limestone outliers of the Cotswold Hills break up the low-lying landscape in the south-east of the area
- Woodland is sparsely distributed across this landscape but a well wooded impression is provided by frequent hedgerow trees, parkland and surviving traditional orchards.
- Small pasture fields and commons are prevalent in the west with a regular pattern of parliamentary enclosure in the east.
- Pasture and stock rearing predominate on the floodplain and on steeper slopes, with a mixture of livestock rearing, arable, market gardening and hop growing elsewhere
- A strong historic time line is visible in the landscape, from the Roman influences centred at Gloucester, earthwork remains of medieval settlements and associated field systems through to the strong Shakespearian heritage at Stratford-upon-Avon.
- Highly varied use of traditional buildings materials, with black and white timber frame are intermixed with deep-red brick buildings, grey Lias and also Cotswolds stone.

(Source: NCA Profile: 106 Severn and Avon Vales
http://publications.naturalengland.org.uk/publication/5900626)

Opportunities and Strategies

Statements of Environmental Opportunity for the Severn and Avon Vales NCA include in summary:

- ♣ SEO1 Protect and manage the landscape, heritage and biodiversity associated with the Severn Estuary, the river valleys and other hydrological features…..
- ♣ SEO2 Seek to safeguard and enhance this areas distinctive patterns of field boundaries, ancient hedgerows, settlements, orchards, parkland, small woodlands, chases, commons and floodplain management…
- ♣ SEO3 Reinforce the existing landscape structure as part of any identified growth of urban areas, hard infrastructure and other settlements ensuring quality green infrastructure is incorporated enhancing health, access, recreation, landscape, biodiversity and geodiversity
- ♣ SEO4 Protect geological exposures and maintain, restore and expand semi natural habitats….

Key drivers of change relevant to the contextual setting of the study site are identified to include:

- ♣ Traditional orchards have declined and been lost
- ♣ The orchard tree age structure is too limited. The older fruit tree population is declining and there are too few middle aged trees to replace them in the future. This is a particularly significant problem in perry pears.
- ♣ Loss and deterioration of hedges is ongoing. The loss of hedgerow trees and failure to nurture a new generation of hedgerow trees has created some very open areas….

3.2 District/Local Landscape Character Type

County/District Character Type	**Settled Unwooded Vale** - SV6B Vale of Gloucester

Key Characteristics:

- Soft, gently undulating to flat landscape, but with intermittent locally elevated areas that project above the otherwise flatter landform;
- Area drained by a series of east west aligned tributaries of the Severn, including the Cam, Frome and Chelt, and the Stratford Avon flowing into the Severn from the north;

- Mixed arable and pastoral land use enclosed by hedgerow network, in places forming a strong landscape pattern;
- Limited woodland cover with mature hedgerow trees and occasional orchards;
- Rural areas bordered by large urban and suburban areas and interspersed with commercial and industrial premises;
- Varied mix of buildings materials including brick, timber and stone, and slate and thatch roofing;
- Proliferation of modern 'suburban' buildings styles and materials;
- Major transport corridors pass through the Vale, frequently aligned north south, beyond which is a network of local roads and lanes linking villages and hamlets; and
- Widespread network of pylons and transmission lines;
- Numerous nurseries in the vale commonly located on the edge of settlements and/or adjacent to major roads
- The influence of settlement character of the vale landscapes caries in its nature and extent some areas feel deeply rural whilst in other areas the urban edge of Gloucester, Cheltenham or Tewkesbury Exerts a strong influence.

3.3 JCS Character Assessment

A landscape character and sensitivity analysis around urban centres of Gloucester, Cheltenham and Tewkesbury was prepared as part of the evidence for the joint core strategy. The study site has been identified as being situated within character area A: Leckhampton.

The key characteristics of the A: Leckhampton character area are summarised as follows:

- A very gently sloping, intimate landscape, consisting of numerous small holdings and nurseries (of varying condition), that are predominantly used as unimproved pasture.
- Enclosed almost entirely by built form in the north, west and east, with the Cotswold AONB Escarpment directly to the south and south-east, the area is further enclosed at a local scale by a strong and varied tree structure, albeit confined to field boundaries and remnant orchards.

- ♣ Formal Poplar planting, occasional conifer screening, and ornamental tree varieties tend to demarcate private gardens or grounds.
- ♣ Field size ranges from small to medium, bound by tree and scrub, and post and wire fence
- ♣ Two tributaries of the Hatherley Brook provide natural and well vegetated features, and (although observed to be dry and somewhat overgrown) the Moat at Church Farm gives historical and potential hydrological interest.
- ♣ There are numerous public footpaths (including part of the Cheltenham Circular Footpath), while allotments and a formal playing field which abut the urban development provide further recreational opportunities.
- ♣ Although the fast A46 passes the site other roads are narrower and somewhat less trafficked.
- ♣ The proximity to residential development with associated fencing; a commercial auction unit and associated car parking; dilapidated nursery greenhouses; and the often dishevelled aesthetic of the area can have a detrimental visual impact.
- ♣ Dense built form is often fully or partly screened by vegetation; settlement within the site takes the form of scattered farmsteads and cottages (often of historic importance); and the small holdings with varied animals (pigs, sheep, horses and chickens) and “home-made‟ appearance lend a textural, intimate and personal quality to the area.
- ♣ Vegetation, fencing, and grass are often rough in nature and ridge and furrow and other localised undulations add interest to the pasture.

3.4 Local Landscape Character

The local landscape character baseline is evolving with the development of the new school, new residential development (under construction and approved but yet to be constructed) and highway changes. The broad landscape features which inform the local landscape character in the immediate context to the study site, can be identified as follows:

Undisturbed Agricultural Field Parcels:

Predominantly used as unimproved pasture, these fields have a sense of time depth and enclosure. The undisturbed agricultural field’s character areas are typically bounded by mature hedgerows, vegetated corridors and watercourses lined by mature trees. Occasional

isolated mature field trees in species such as oak are also present. Vegetation is often rough in nature, ridge and furrow and other undulations add interest to the pasture. Some younger planting of trees has occurred in more recent years and this breaks with the traditional land use and field patterns.

Former Nurseries:

Land associated with former horticultural nursery use remains visually identifiable as an element of the landscape but there are no longer any fully functioning commercial nurseries. The land, including land opposite The Nurseries on Kidnappers Lane appears derelict and unused. Much of this land now forms part of housing allocation land or has consent for residential development. It is therefore a landscape element that will be subject to considerable change which should be considered in the baseline assessment.

Established Settlement:

Established settlement on the edge of the study area is presently linear in pattern, reflecting the ribbon development along Kidnappers Lane. Some isolated properties are located to the east of the site and extensive residential and mixed-use developments are currently under construction or have recently been constructed to the north, east, west , south west and south of the study site at the edges of the designated local green space. The recent and current construction of approved dwellings is currently in the process of changing the pattern of settlement immediately surrounding the site to that of a more nucleated pattern.

School and school grounds and playing fields

The new school and its open grounds and playing fields has removed a large area of former agricultural land, effectively increasing the urban influences on the wider local landscape. The introduction of improved street, lighting, refurbished roads and junctions as well as the introduction of cycleways has similarly added to this greater influence of urban features on the semi-rural landscape.

Small Holding, disturbed agricultural:

Within the slightly wider local context small holdings and former horticultural land remain a characteristic of the area and in particular the local green space. It is less influential on the immediate local character that informs the setting of the site.

Vegetation Belt:

Vegetation belts particularly associated with Kidnappers Lane bring a sense of enclosure to the local character along the lane east of the site. This assists with creating a semi-rural transition between the site and the established settlement area off Church Road.

Watercourse and Associated Vegetation:

This riparian vegetation along the watercourse also contributes to enclosure of local external areas and forms a strong boundary between the site and the new school and its grounds. It has strong screening qualities which in conjunction with strong tree growth along Kidnappers Lane are important screening elements of the wider settlement when seen in views from Leckhampton Hill.

Kidnappers Lane:

The character of Kidnappers Lane is evolving with a greater urban influence on its character adjacent to the site and the school. These influences include lighting and cycleways/footpaths. East of the site the treed corridor along the road creates a semi-rural character which maintains a sense of separation between the site and Church Road.

3.5 Local Landscape Character Summary

The local landscape character is now equally influenced by new urbanising features and existing more traditional settlement features. This balance will continue to become more distinct with the construction of approved residential development close to site. The semi-rural character remains identifiable where Lotts Meadow adjoins Kidnappers Lane but elsewhere the character is settled and active with a greater village sense than rural community. The local trees contribute to softening of the greater settlement area and views of Leckhampton Hill remain an important focus giving sense of place. Highway infrastructure changes reinforce the greater settled character along with the activities associated with the school.

This has created an evolving settled landscape character which forms a settled baseline against which development proposals are to be considered. The broader characteristics of the settled unwooded vale and even the JCS 'Leckhampton sensitivity study area are now less reflective of the immediate character of the site.

3.6 Site features	
Natural Elements:	
Landform	Gently sloping towards watercourse
Vegetation:	
Trees	Prominent roadside coniferous trees are distinct on Kidnappers Lane. Most located within property excluded from the site. Riparian vegetation associated with watercourse forms strong buffer between the site and the school grounds.
Hedges and hedgerows	Well established ornamental hedge with adjoining residential property to the west. Ornamental hedge along drive.
Landcover	Gardens and grounds with some outbuilding structures formerly used for horticultural nursery.
Other	Relatively open to the south with post and rail fencing.
Hydrology	Hatherley Brook forms western boundary to the site.
Cultural Elements:	
Land Use	Garden and grounds, partly used for former nursery production
Boundaries and enclosure pattern	Domestic scale/nature and formed as part of ribbon development along Kidnappers Lane.

Time depth / Historic landscape	Limited time depth due to modern settlement features and ornamental vegetation
Relationship to built form/ settlement	Now forms part of the settled landscape contained by school and existing residential development on all sides other than south which adjoins open land that forms part of the local green space.
Amenity / Recreational use	None
Perceptual qualities	Settled

3.7 Landscape Character Summary

Overall, the site is located within the now settled village landscape contained by the school grounds and existing settlement. The changing local landscape character is unusually fluid and evolving as the immediate area begins a period of development including residential, highway and the now completed school.

The wider landscape character is informed both by the rural landscape of the settled unwooded vale and the urban edge of Cheltenham. The site forms part of the settled landscape character through its settlement features and ornamental vegetation, gardens and grounds.

3.8 Landscape Sensitivity

The landscape of the study site does not fall within a designated landscape and is separated from the Cotswolds AONB by a number of fields and areas of existing settlement. The study site does not have rare or distinctive attributes and already forms a part of the settled landscape of the village.

The susceptibility of the Severn and Avon Vales National character Area to change is assessed to be **medium low** where settlement of mixed age and character is present. The value of the Severn and Avon Vales NCA is assessed to be **medium** due to the extent and distribution of settlement and

communication corridors away from the River Severn corridor.

The susceptibility of the Vale of Gloucester SV6B district landscape character type to change is assessed to be **medium** due to the extent and nature of existing settlement and associated features. The value of the Vale of Gloucester LCT is assessed to be **medium low** where the landscape falls within areas adjoining major settlement or influenced by well-established communication corridors.

Site features are generally limited to domestic features which are in a poor condition and are deteriorating. The site boundary trees and boundary vegetation do contribute to the well vegetated appearance of the location and are therefore its most sensitive features.

The study site is assessed to have a **medium to low** susceptibility to change due to its limited contribution to the local rural landscape character and to the condition of its elements. The study site is assessed to have **medium low** value due to settled character, but value is given to the small parcels of open space which fall within the locally designated local green space.

Overall, the landscape sensitivity of the site is assessed to be **medium low.**

4.0 Landscape and Visual Baseline

4.1 Confirmation of Landscape Receptors

The confirmed landscape receptors are set out below. This assessment has considered changes to the landscape character since studies were undertaken.

Landscape Receptor	Susceptibility	Value	Sensitivity
NCA 106 Severn and Avon Vales –SV6B Vale of Gloucester	Medium	Medium Low	Medium
JCS Sensitivity Study Character Area A: Leckhampton	Medium	Medium	Medium
Wider Local landscape Character	Medium	Medium	Medium
Immediate Landscape Character	Medium Low	Medium Low	Medium Low
Site Character	Low	Medium Low	Medium Low

4.2 Visual Baseline

4.3 Visual context and scope of the assessment

A ZTV and desktop assessment were used to identify potential visual receptors along with experience gained through landscape and visual assessment work within the immediate area. A site survey was undertaken in November 2022 to confirm or reject views.

Visual receptors and their potential susceptibility, value of views and overall sensitivity are set out below.

4.4 Key Visual Receptors:

Visual Receptor	Susceptibility	Value of views	Visual Sensitivity
Visual Receptor 1: Users of Kidnappers Lane (Represented by viewpoints 1,2,6 and 11)	Medium	Medium	Medium
Description of views: Users of Kidnappers Lane experience a number of views according to location. Close to the site the lane is settled with views of dwellings and their associated gardens. From Kidnapers Lane the view is largely experienced within a settled context with both the site and the majority of built form being screened by roadside vegetation from further south in the lane (see viewpoint 11) from which section the undeveloped landscape is seen as a focal point along the lane. The site itself is recessed from this view and only seen from a short distance passing eastwards or westwards (viewpoints 1,2 and 6) when it is seen in the context of the existing settlement area.			

Visual Receptor	Susceptibility	Value of views	Visual Sensitivity
Visual Receptor 2: Walkers using PRoWs to the south/west. (Represented by viewpoints 3-5)	High	Medium	Medium High
Description of views: Views on footpaths to the south/south west of the site are generally open and rural towards Leckhampton Hill but contained and settled in character to towards the site. The site is seen as part of the settlement on Kidnappers Lane adjoining the school and its new grounds. Existing trees along the watercourse and Kidnappers Lane soften views of the settlement generally. Views of the study site are			

limited to the field immediately adjacent to the study site beyond which extensive vegetative filed boundaries and riparian vegetation screens views towards the site.

Visual Receptor	Susceptibility	Value of views	Visual Sensitivity
Visual Receptor 3: Walkers on Leckhampton Hill (AONB). (Represented by viewpoints 12 and 13)	High	High	High

Description of views: Walkers on Leckhampton Hill experience broad views across the vale towards the settlement and beyond. Local settlement features and established vegetation limit clear views into the site. Overall, the panoramic nature of these views focuses on the wider vale landscape which is characterised by areas of rural and settled character frequently juxtaposed on the margins of the major urban areas.

Visual Receptor	Susceptibility	Value of views	Visual Sensitivity
Visual Receptor 4: Residents of properties north on Kidnappers Lane. (Represented by viewpoint 6)	High	Medium low	Medium

Description of views: Residents of properties on Kidnappers Lane have views which are generally focused onto the lane or to the riparian vegetation along the brook. Dense garden vegetation generally screens views into or towards the site. Views will be open from the garden and dwelling of the property immediately adjoining the site.

Visual Receptor	Susceptibility	Value of views	Visual Sensitivity
Visual Receptor 5: Residents of properties south if the site.-	High	Medium	Medium High

Description of views: Residents of properties south of the site have views generally screened by established vegetation. Part views of minor portions of the site may be more visible in winter conditions from Sheepshead Row. Views from these properties are likely to focus on the open undeveloped land to the south and east as well as Kidnappers Lane.

4.5 Potential effects and mitigation and enhancement

Mitigation

The proposed development benefits from embedded mitigation in the form of existing trees that bring enclosure to the site. The riparian vegetation that separates the site from the school assists with separating open countryside from the site and by screening potential views into the site from the south and south east. Retained roadside trees also maintain containment and enclosure of the site in street views from Kidnappers Lane. The existing dwelling and hedges further assist with screening the development site from Kidnappers Lane as well as creating an immediate settled character to the location into which the development is located. Proposed new dwellings onto Kidnappers Lane respect the existing pattern of settlement by remaining set back from the highway allowing a green frontage to be maintained or re-established.

New mitigation planting will benefit the development by improving screening of views from the south and from Kidnappers Lane through tree planting within the proposed open space and within the proposed built development. A new buffer of hedge and trees along the frontage of the site adjoining Kidnappers Lane will assist with maintaining the focus of the view on Kidnappers Lane to along the highway corridor.

5.0 Potential Landscape and visual effects

5.1 Construction Landscape and Visual Effects

The small scale and nature of the development proposals are not assessed to give rise to significant construction effects. However, were development of adjoining approved development to be undertaken at the same time as the site construction, a cumulative effect is predicted. However, this would be temporary and limited by the scale of the development proposals.

5.2 Assessment of Landscape Effects

The landscape receptors identified in the baseline assessment, are assessed for their sensitivity by consideration of their susceptibility to change as a result of the proposal (high, medium, low) and the value of the landscape receptor. The overall sensitivity of the landscape receptor is assessed using the criteria set out in the methodology in Appendix A.

NCA Area 106 Severn and Avon Vales	The development proposals are of a scale and nature that they would have a negligible effect in the context of the scale of the NCA. Magnitude of change to the national character area is assessed to be **negligible**. The significance of the landscape effect is assessed to be **negligible**.
District Landscape Character type –Settled Unwooded Vale –SV6B Vale of Gloucester	The development proposals are of a scale and nature that they would have a negligible effect on the district landscape character type and area. The development site is within an existing settlement so do not erode the balance of rural undeveloped land to settlement. The proposals are in keeping with the character of the settlement, The magnitude of change assessed from the development on the local character type is assessed to be **negligible**. The significance of the landscape effect is assessed to be **negligible**.
JCS Sensitivity Study Character Area A: Leckhampton	This is a more detailed local assessment but now outdated by the evolution of the settlement within the immediate area. The development proposals are assessed to have a limited effect on the character of the area due to the loss of the linear roadside settlement pattern in this location. However, this pattern of settlement is not recognised to contribute to local distinctiveness of the wider settlement.

	The magnitude of change assessed from the development on the Area A: Leckhampton character type is assessed to be **low**. The significance of the landscape effect is assessed to be **slight adverse**.
Wider Local Landscape Character Area	The local landscape character remains broadly semi-rural in character but is now strongly influenced by settlement features. This combination of settled features juxtaposed with undeveloped parcels of land are united by hedgerows, trees and other established vegetation. Settlement is a strong feature within the local landscape with large scale urban settlement in the immediate proximity. The small scale nature of the development proposals reflects this local characteristic. Magnitude of change is assessed to be **low**. The significance of the landscape effect is assessed to be **slight adverse**.
Immediate Landscape Character	The immediate contextual landscape character is settled and contained, with focus on Kidnappers Lane which is active in this location. The character is settled and active but retains connectivity with the semi-rural landscape to the east and south. Magnitude of change is assessed to be **medium**.

	The significance of the landscape effect is assessed to be **moderate adverse**.
Site Character	The site forms a part of the settled landscape with domestic features and ornamental vegetation. Trees and hedges make a contribution to the local landscape character and visual appearance but do not contribute to the wider semi-rural character of the landscape beyond the settlement. The openness of the site is well contained and generally screened so also makes a limited contribution to the local landscape character. The magnitude of change assessed from the development of the site is assessed to be **high**. The significance of the landscape effect is assessed to be **moderate adverse**.

5.3 Summary of Landscape Effects

The above assessment identifies that there are no notable landscape effects on the wider published landscape character areas and that landscape effects are localised and contained to the site and its immediate environs.

Landscape effects assessed to the site and immediate area are also not assessed to be significant in an undesignated landscape. The element of the site that is designated as local green space retains its openness and has improved access. The development footprint lies within the settled landscape which already informs the setting of this local green space.

Overall significance of landscape effects is assessed to be slight adverse resulting in less than unacceptable harm in an undesignated and settled landscape.

5.4 Assessment of Visual Effects	
Visual Receptor 1: Users of Kidnappers Lane (Represented by viewpoints 1, 2, 6 and 11)	Users of Kidnappers Lane will have clear views of new built form when immediately adjoining the site. New dwellings will be seen along the road frontage and deeper within the site. Taller riparian vegetation associated with the watercourse will remain the overall backdrop to the view from the lane. Approaching from the north the development will be predominately screened or seen in the context of existing settlement features. Approaching from the south, the site will be seen partly through the veil of trees and part obscured by the existing dwelling and its garden features. Although new development will be part seen, it will be experienced within the established context of existing settlement features. The magnitude of change likely to be experienced by lane users is assessed to be **low to medium** across the range of views that will be experienced. The significance of the visual effect is assessed to be **moderate to slight adverse**.
Visual Receptor 2: Walkers using PRoW to the south/west. (Represented by viewpoints 3, 4 & 5)	Walkers will experience close views of the site in the immediate vicinity of the site. From footpaths further to the west and south, views will be limited by vegetation. Where new buildings will be seen or seen in part, these will be in the context of the existing settlement that forms the wider backdrop to all views to the north and east from these footpaths.

	The magnitude of change likely to be experienced by users is assessed to be **low to medium** across the range of views that will be available. The significance of the visual effect is assessed to be **moderate adverse**.
Visual Receptor 3: Walkers using public rights of way ASH/31 & ASH/32 and Cotswold Way on Leckhampton Hill within the AONB (Viewpoints 7 & 8)	Walkers experience broad, panoramic views into the vale. New built form will be part seen but will form a very small portion of the overall view. The magnitude of change likely to be experienced by users is assessed to be **negligible** The significance of the visual effect is assessed to be **negligible**.
Visual Receptor 4: Residents of properties north/ west of the site on Kidnappers Lane	Residents of properties west/north of the site will generally have views of the site obscured by intervening landcover. The immediately adjoining property to the west will have views into and over the site above boundary fencing and vegetation. The magnitude of change likely to be experienced by users is assessed to be **medium to high** The significance of the visual effect is assessed to be **moderate to substantial adverse**.
Visual Receptor 5: Residents of properties south of the site	Residents of properties currently under construction to the east of the site, generally have views obscured by established vegetation. Where gaps exist there may be limited part views of new dwellings from upper storey less habitable rooms.

	New tree planting within the western margin will assist to fully mitigate potential visual effects here. The magnitude of change likely to be experienced by users is assessed to be **low** The significance of the visual effect is assessed to be **slight adverse**.

5.5 Summary of visual effects

Overall, views into and over the site are limited to visual receptors adjoining the site. No visual effects are assessed on views from Leckhampton Hill and within the AONB. Visual receptors using Kidnappers Lane and the local PRoW south of the site will experience limited visual effects that will result in low/moderate harm to existing views but this harm does not exceed a threshold of unacceptable harm in the context of the existing settled context and undesignated nature of the landscape.

Residents of the adjoining property on Kidnappers Lane are assessed to experience the greatest changes to views through loss of view across the existing garden/site. In the context of the orientation of the dwelling away from the site, this harm is not assessed to be unacceptable particularly where settled features are already an element in views from the property.

5.7 Cumulative and in Combination Effects

The introduction of the school and its formal grounds and playing fields changed the landscape baseline of the site. Further approved development that remains to be constructed or completed will also contribute to local changes to the landscape and visual baseline. These changes may be experienced by shared landscape and visual receptors and will result in cumulative landscape and visual effects due to the combined increase in settlement features.

Overall, a moderate adverse cumulative landscape effect is predicted and a slight adverse cumulative visual effect is predicted.

5.8 Overall Significance of Effects

Overall, a **slight to moderate adverse** significance of effect is assessed from the development proposals. This harm arises from the introduction of greater density of development resulting in a change to the character of the site and its immediate surroundings. In the context of the settled and active landscape and visual baselines and undesignated nature of the landscape, this harm is not assessed to be significant.

6.0 Conclusion

The development site forms part of the existing settled landscape off Kidnappers Lane. The wider settlement continues to evolve with the completion of the school and changes to highway infrastructure in addition to further approved new development being constructed. The changes to the overall baseline will result in a predominantly settled character to the immediate landscape against which the changes that will be introduced by the development proposals are assessed.
In the context of the existing domestic site, the settled and the changing settlement context, the development proposals are assessed to result in landscape and visual effects that are limited and contained.
Landscape and visual effects are limited to the immediate contextual landscape due to the naturally well contained character of the site. The riparian vegetation, school and existing settlement features bring enclosure to the site to the north and west, whilst established vegetative boundaries bring enclosure to the site to the south and east limiting visibility to the field or lane immediately adjacent to the study site. Kidnappers Lane already forms a part of the settlement in this location. The local green space to the east of the site remains unchanged by the development. New tree and hedge planting will conserve the semi-rural character of this area. Similarly, retention of established trees along the frontage with Kidnappers Lane, reinforced with additional tree and hedge planting with conserve the soft, settled appearance of this part of the settlement. New built form is set back into the site and as such is assessed to have a low visual prominence from all but the adjoining property and immediately adjoining field. The adjoining property is orientated towards Kidnappers Lane and the brook so views across the site would generally be indirect whilst view from the adjacent field are orientated towards and existing settled character therefore the degree of change experienced by additional built form in this settled area will be limited.

APPENDIX B –SUMMARY OF LANDSCAPE AND VISUAL EFFECTS

APPENDIX B - ASSESSMENT METHODOLOGY

1.1 Assessment Guidelines

The methodology used to identify and assess the landscape and visual effects of proposed development and their significance is based on the following recognised guidance:

- Guidelines for Landscape and Visual Impact Assessment (GLVIA), Third Edition (Landscape Institute and Institute of Environmental Management and Assessment)
- Photography and Photomontage in Landscape and Visual Impact Assessment, Advice Note 01/11 (Landscape Institute)

1.2 LVIA Methodology

The Landscape and visual impact assessment is a tool used to identify and assess the effects of change, resulting from development, and their significance on the landscape as a resource and people's views and visual amenity. It is an iterative process intended to inform design decisions so that new development can avoid or reduce significant negative (adverse) effects on the landscape and visual environment.

It is recognised as important to draw distinctions between landscape and visual effects during the assessment; treating them independently although related. GLVIA sets out the recommended process for assessing the significance of effects by comparing the sensitivity of the visual or landscape receptor with the magnitude of change resulting from development.

The GLVIA states that the assessment should cover the following stages:

- Project description: description of the proposed development for the purpose of assessment; main features of proposals and establish parameters
- Baseline studies: establishes existing nature of landscape and visual environment in the study area, includes information of the value attached to different resources
- Identification and description of effects: that are likely to occur including whether they are adverse or beneficial
- Assess significance of effects: systematic assessment of the likely significance of the effects identified

- Mitigation: proposes measures designed to avoid/prevent, reduce or offset (or compensate for) any significant negative (adverse) effects

Method of Desk Study

Assessment of Ordnance Survey map data, aerial photographs, landscape designations and landscape planning policies are undertaken at the outset to inform the extent of the study area and identify sensitive visual receptors and likely sensitivity of the landscape. Liaison with the Local Planning Authority landscape officer is also undertaken to agree landscape resources and visual receptors of potential sensitivity to be included within the assessment.

Method of Field Work

Site survey is undertaken by at least one chartered landscape architect. Visual and landscape receptors are checked and refined initially from the study site. Visual receptors are then visited from the nearest publicly accessible location to select the most suitable and representative viewpoint. Assessment is undertaken on site; locations and notes recorded on maps and photographs taken from viewpoints. Photographs are taken using a digital SLR set to the equivalent of a 50mm SLR lens; which best represents the view experienced by the human eye.

1.3 Method for Assessing Landscape

Landscape Character and Characterisation

Landscape Character Assessment Guidance defines ‘landscape’ as consisting of the following elements:

- Natural: Geology, landform, air and climate, soils, flora and fauna
- Cultural/Social: land use, settlement, enclosure
- Perceptual and Aesthetic: memories, associations, preferences, touch and feel, smells, sounds and sight

Landscape Character Assessment Guidance encourages assessment at different scales that fit together as a hierarchy of landscape character areas and types so that each level can provide more detail to the one above. Identifying the existing landscape character is part of establishing the baseline conditions of a study site and its study area.

National Character Assessment
Establishes broad pattern of the landscape of the wider countryside
↓
District Character Assessment
Establishes pattern of the landscape of the district/county countryside
↓
Local Character Assessment
Establishes pattern of the landscape at a local level
↓
Site elements and features
Establishes to landscape resources on the site such as trees, hedges etc

Value of the landscape receptor

Value can apply to areas of landscape as a whole, or to the individual elements, features and aesthetic or perceptual dimensions which contribute to the character of the landscape. Value is determined by some or all the following aspects:

- Importance applied to landscape by designation or planning policy and the level of this importance in terms of local, regional or national importance
- The views of the local consultees including the local planning authority, members of the public, special interest groups such as Parish Council, wildlife or walking groups
- The rarity, importance and condition of the landscape resource as judged objectively by the landscape professional

International and Nationally designated landscapes tend to be of the highest value, locally designated landscapes are most likely to be of moderate value and undesignated landscapes can either be of lower to moderate value depending on an assessment taking into account the following factors:

- Condition of the local landscape
- Scenic quality
- Rarity
- Representativeness
- Conservation interests
- Recreation value
- Perceptual aspects
- Associations

The definitions of value used are as follows:

- **Very High**: such as World Heritage Sites
- **High**: such as National Parks, AONB, Conservation Areas, Listed Buildings
- **Medium:** such as Special Landscape Areas, Areas of Great Landscape Value, several protected features such as Tree Preservation Orders, site may be mentioned in literature, art, tourism or in district/county landscape character assessments or sensitivity assessments.
- **Medium Low**: generally undesignated, may have value at a community level by tourism, literature, art, village greens or allotments, may have a small number of protected features
- **Low**: no designated features or landscape, limited value, no protected features

Susceptibility of the landscape receptor to the proposed change

This relates to the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of the of landscape planning policies.

The definitions of susceptibility of the proposed change to landscape used are as follows:

- **High**: Elements, features or whole landscapes that are susceptible to change, with limited opportunities to accommodate change based on the strength of the existing landform, pattern, land cover, settlement pattern, sense of enclosure, visual context, tranquillity
- **Medium**: Elements, features or whole landscapes that are partially susceptible to change, with some opportunities to accommodate change based on the strength of the existing landform, pattern, land cover, settlement pattern, sense of enclosure, visual context, tranquillity
- **Low**: Elements, features or whole landscapes that have limited susceptibility to change, with opportunities to accommodate change based on the strength of the

existing landform, land use pattern, land cover, settlement pattern, sense of enclosure, visual context, tranquillity

Definition of Landscape Sensitivity

Landscape **sensitivity** is determined by combining judgements of the **susceptibility** to the proposed change and the **value** of the receptor. Refer to Table A.

Table A: Definition of Landscape Sensitivity:	
Sensitivity	Definition
High	- High susceptibility to proposed change - May be a designated landscape valued at a National or International level - Landscape characteristics are vulnerable and unable to accommodate change - Development may result in significant changes to landscape character
Medium-High	- Medium or high susceptibility to proposed change - May be a designated landscape valued at a local or national level - Landscape characteristics are vulnerable with limited ability to accommodate change - Development may result in moderate changes to landscape character
Medium	- Medium susceptibility to proposed change - Some designated features and/or valued at a local level - Landscape characteristics are able to accommodate some change - Development may not result in significant changes to landscape character
Medium-Low	- Low or medium susceptibility to proposed change - Likely to be an undesignated landscape but possibly some designated features and/or valued at a local level - Landscape characteristics are resilient to accommodating change - Development may not result in significant changes to landscape character
Low	- Low susceptibility to proposed change - Undesignated landscape and/or valued at a community level - Landscape characteristics are robust and able to accommodate change - Development may not result in significant changes to landscape character
Negligible	- No susceptibility to proposed change - Undesignated, valued at a site level - Landscape characteristics that are degraded or discordant with landscape character - Development may result in an improvement to landscape character

Landscape Receptor –Overall Magnitude of Effect

The magnitude of the effect is determined by combining the professional judgements about the **size or scale** of the landscape effect, the **geographical extent** over the area which the effect occurs, its **reversibility** and its **duration**. Refer to table B:

- The scale of the effect –for example, whether there is complete loss of a particular element/feature/characteristic or partial loss or no loss; proportion of key elements or features of the baseline that will be lost, the value/importance of these elements to the landscape character and the degree of contrast between the development and the landscape character

- The geographical extent of the area affected relative to the receptor; this will range from the site itself, a short distance comprising the immediate local area, a medium distance comprising the local and middle landscape and long distance comprising the wider landscape

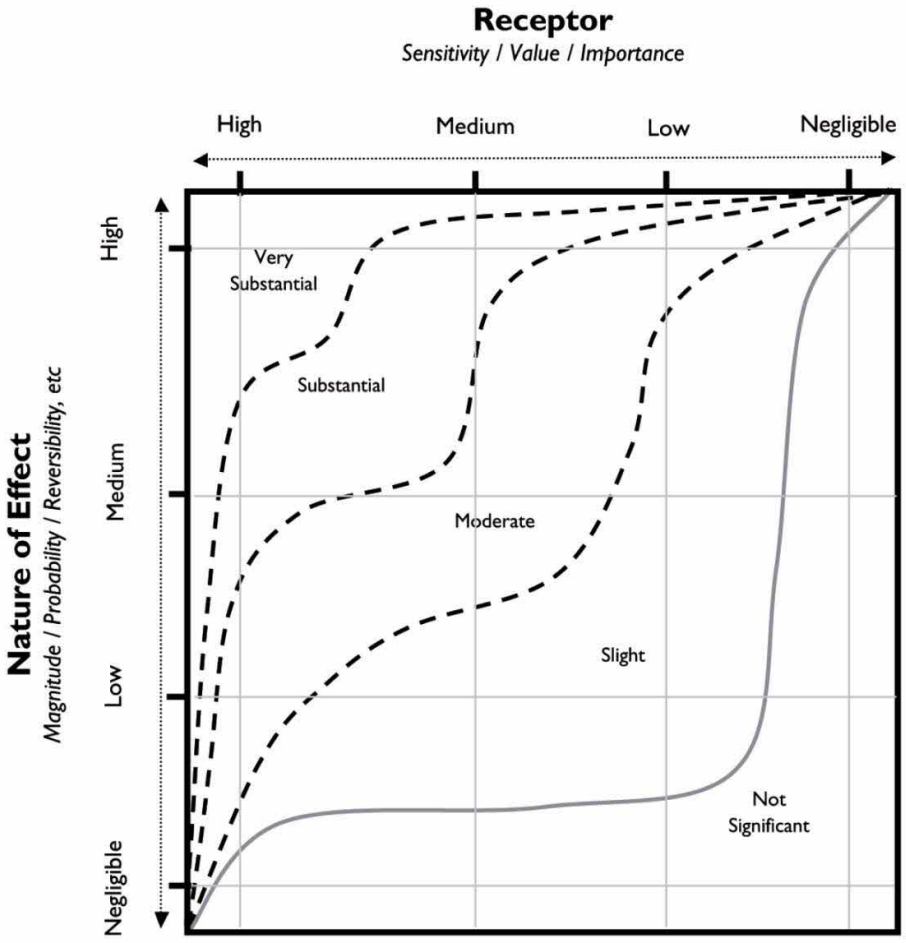
- The duration of the effect; 0-1 year for the construction period is considered short term duration, 1-10 years for mitigation to establish is considered medium term duration, 10 years and beyond is considered long term duration

- Reversibility; the extent to which the development could be removed and the land reinstated. Reversible and temporary development would include solar farms and wind turbines. Other development such as housing would be considered irreversible and permanent

Table B: Definition of Landscape Magnitude of Effect:	
Magnitude of change:	Predicted landscape effects:
High	- Very substantial loss of landscape elements of the landscape, and/or the lost elements make a substantial contribution to landscape character, and/or change affects a large geographical area, and/or the development introduces a dominating and contrasting characteristic to the landscape
Medium-High	- Substantial loss of landscape elements of the landscape, and/or the lost elements make a large contribution to landscape character, and/or change affects a moderate to large geographical area, and/or the development introduces a prominent and partially uncharacteristic feature to the landscape
Medium	- Moderate loss of landscape elements of the landscape, and/or the lost elements make a moderate contribution to landscape character, and/or change affects a moderate geographical area, and/or the development becomes an identifiable feature but not wholly uncharacteristic to the landscape
Medium-Low	- Partial loss of landscape elements of the landscape, and/or the lost elements make a moderate to small contribution to landscape character, and/or change affects a small to moderate geographical area, and/or the development is perceptible but not wholly uncharacteristic to the landscape
Low	- Minor loss of landscape elements of the landscape, and/or the lost elements make a small contribution to landscape character, and/or change affects a small geographical area, and/or the development introduces elements not uncharacteristic to the landscape
Negligible	- Negligible or no loss of landscape elements of the landscape, and/or the lost elements make a limited contribution to landscape character, and/or change affects a very small geographical area, and/or the development introduces characteristics that are consistent with or enhance the landscape, and/or effects may be short term, temporary or reversible

Assessment criteria used to assess landscape effects

Landscape effects are judged by assessing the overall sensitivity (susceptibility to change and value of receptor) of the existing landscape and the overall magnitude of effect predicted as a result of the development (size/scale, geographical extent, duration and reversibility of effect). The diagram below, produced by IEMA for Environmental Impact Assessment, is utilised to judge the effect.



1.4 Method for Assessing Views

A Zone of Theoretical Visibility (ZTV) is often produced as an initial desktop tool to inform the extent of the study area based on the theoretical visibility of the development. The (ZTV) illustrates the extent to which the proposed development site as a whole is potentially visible from the surrounding area. ZTV's are prepared using GIS software (Global Mapper) by carrying out an analysis of the visibility of the site from the surrounding area up to 5km using a digital terrain model from OS Landform DTM profile and OS Panorama DTM data. Calculations are based on bare earth survey OS height data with a viewer height set at 1.7m. The digital terrain model and subsequent output are based on bare earth modelling and as such do not take into account any screening from land cover such as buildings, hedgerows and trees. ZTV mapping therefore represents a 'worst case' scenario assuming 100% visibility, where the actual extents of visibility are likely to be less extensive. ZTV's are used to determine where there may be potential views of the development which are then further verified with site visits. The ZTV is then used to identify potential key views of the development which are then verified by field work to further identify and visit visual receptors. Where a ZTV is not produced, the study area is determined by reviewing land use and landform shown on OS maps and aerial photos. Field work is then undertaken to refine the extent of views.

Viewpoints selected for inclusion in the assessment and for illustration of the visual effects fall broadly into three groups:

- **Representative viewpoints**, selected to represent the experience of different types of visual receptor, where larger numbers of viewpoints cannot all be included individually and where the significant effects are unlikely to differ –for example, certain points may be chosen to represent the views of particular public footpaths and bridleways
- **Specific viewpoints**, chosen because they are key and sometimes promoted viewpoints within the landscape, including for example specific local visitor attractions, viewpoints in areas of particularly noteworthy visual and/or recreational amenity such as landscapes with statutory landscape designations, or viewpoints with particular cultural landscape associations
- **Illustrative viewpoints**, chosen specifically to demonstrate a particular effect or specific issues, which might, for example, be restricted visibility at certain locations

Visual effects are determined through a process of identifying which visual receptors are likely to experience significant visual effects. The process of identifying effects involves determining the **sensitivity** of each visual receptor and **magnitude** of change experienced at each which leads to a professional judgement of the **visual effects**.

Value attached to views

Visual sensitivity is partially determined by judgements made attributing value to views. Judgements take account of:

- Recognition of the value attached to particular views, for example in relation to heritage assets, or through planning designations
- Indicators of the value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment (such as parking places, sign boards and interpretive material) and reference to them in literature or art

The value of views is defined as follows:

- **High**; Recognition of the view by its relation to a heritage asset or national planning designation (AONB, National Park, National Trail). Appearance in guide books, tourist maps or featured in well-known art works. Provision of facilities such as interpretation panels, parking places & signage. Views enjoyed at a local or national level.
- **Medium**; Local planning designation (Country Park, AGLV) or valued locally by village design statement or sensitivity assessment. May be some detractor elements, views enjoyed at a local level.
- **Low**; No specific value placed by designation or publication, may be a large proportion of detractor elements within the view, views enjoyed at a community or site level.

Susceptibility of visual receptors to change

Visual sensitivity is partly determined by the susceptibility to change of each visual receptor. The susceptibility of different visual receptors to changes in views and visual amenity is mainly a function of:

- The occupation or activity of people experiencing the view at particular locations; and
- The extent to which their attention is focussed on the views and visual amenity they experience at particular locations

The susceptibility of visual receptors to change in views and visual amenity is defined broadly as follows:

- **High**; residents at home (generally rooms occupied during daylight hours), people engaged in outdoor recreation (public rights of way or where attention is focussed on the landscape or particular views), visitors to heritage assets or other attractions where the surroundings are important to the experience, communities where views contribute to the landscape setting enjoyed by residents in the area
- **Medium**; travellers on road, rail or other transport modes such as cyclists
- **Low**; people engaged in outdoor sport or recreation which does not involve or depend upon appreciation of views, people at their place of work whose attention may be focused on their work or activity

Combining judgements regarding the **susceptibility of change** with the **value** attached to views leads to a professional judgement of **sensitivity** of each visual receptor.

Table C: Definition of Visual Sensitivity	
Sensitivity rating:	Definition:
High	Receptor may have high susceptibility to changes in view/visual amenity, views experienced may be of a high value designated landscape or at a defined publicised viewing point/attraction, receptors may include residents at home (from rooms generally occupied in daylight hours), users of national or long distance trails or visitors to listed parks/gardens.
Medium-High	Receptor may have medium or high susceptibility to changes in view, views experienced may be of a high or medium value designated landscape, receptors may include travellers on scenic road routes, residents at home (from rooms not facing the development or generally not occupied in daylight hours), users of public rights of way.
Medium	Receptors may have medium susceptibility to changes in view/visual amenity, views experienced may be within medium value locally designated landscape, receptors may include travellers on roads, pedestrians or cyclists.

Medium-Low	Receptors may have with low or medium susceptibility to changes in view/visual amenity, views experienced may be of a medium or low value locally designated landscape where there maybe be some detractors, receptors may include commuters on busy roads such as motorways or urban roads, users may be involved in passive outdoor sport such as golf.
Low	Receptors may have low susceptibility to change in views/visual amenity, views experienced are likely to be of low value undesignated landscape with several detractors, receptors may include people at work, people engaged in outdoor sport or recreation which does not depend on landscape as a setting
Negligible	Receptors may have low or negligible susceptibility to change in views/visual amenity, views experienced are likely to be of low value undesignated landscape dominated by detractors where there are low numbers of receptors engaged in indoor active work

Visual Receptor –Overall Magnitude of Effect

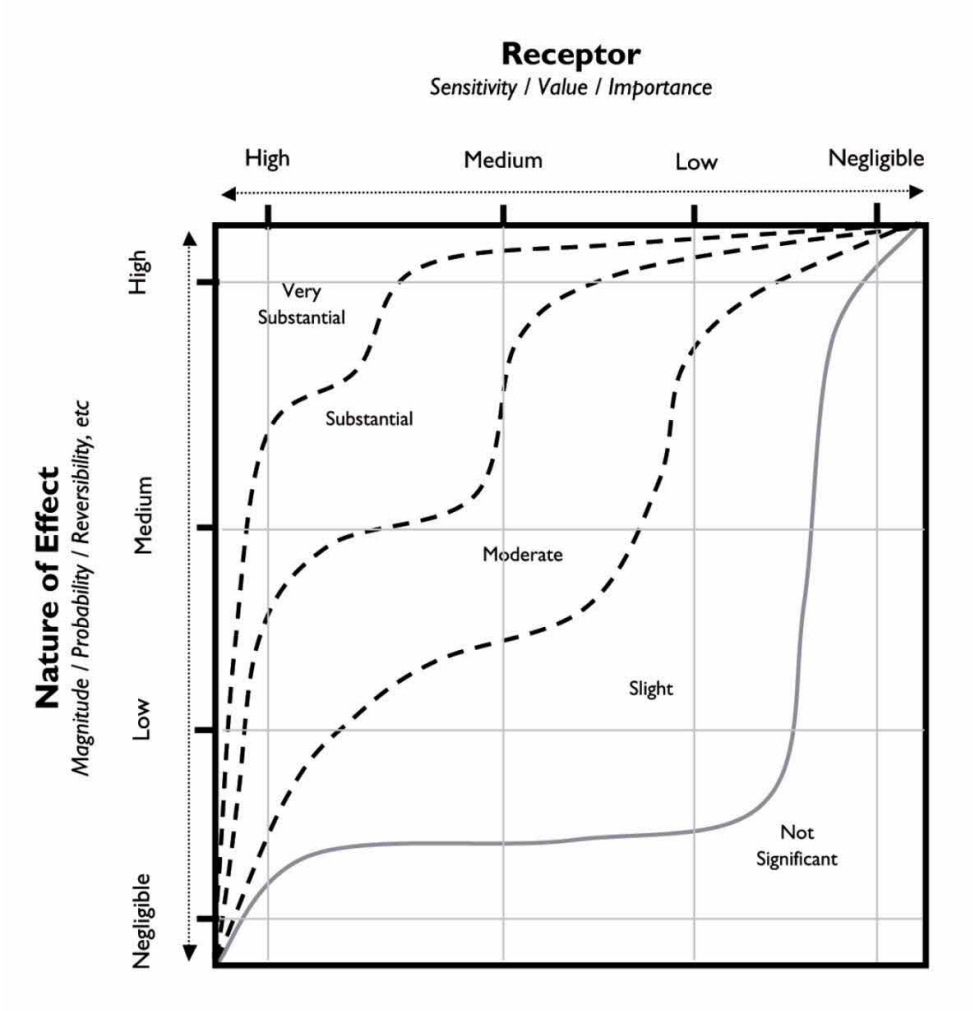
The magnitude of the effect is determined by combining the professional judgements about the **size or scale** of the visual effect, the **geographical extent** over the area which the effect occurs, its **reversibility** and its **duration**. Refer to table D:

Table D: Definition of Visual Magnitude of Effect	
Magnitude of change:	Predicted visual effects:
High	Total loss or very substantial alteration of key views, and/or site may form a very large proportion of the view, and/or all of the site may be visible, and/or views of the site may be experienced over a long distance by high numbers of receptors, and/or views may be permanent and irreversible
Medium-High	Substantial alteration of key views, and/or site may form a medium to large proportion of the view, and/or most of the site may be visible, and/or views of the site may be experienced over a moderate to long distance by moderate to high numbers of receptors, and/or views may be permanent and irreversible
Medium	Moderate alteration of key views, and/or site may form moderate proportion of the view, and/or around half of the site may be visible, and/or views of the site may be experienced over a moderate distance by moderate numbers of receptors, and/or views may be permanent and irreversible
Medium-Low	Moderate to minor alteration of key views, and/or site may form moderate to minor proportion of the view, and/or partial views of the site, and/or views of the site may be experienced over a moderate to

	short distance by moderate to low numbers of receptors, and/or views may be permanent and irreversible
Low	Minor alteration of key views, and/or site may form small proportion of the view, and/or partial or obscured views of the site, and/or views of the site may be experienced over a short/local distance by low numbers of receptors, and/or views may be permanent and irreversible
Negligible	Limited alteration of key views, and/or site may form very small proportion of the view, and/or limited views of the site, and/or views of the site may be experienced over a very short distance by a limited number of receptors, and/or views may be temporary, reversible, permanent or irreversible

Assessment criteria used to assess visual effects

Visual effects are judged by assessing the overall sensitivity (susceptibility to change and value of receptor) of the existing landscape and the overall magnitude of effect predicted as a result of the development (size/scale, geographical extent, duration and reversibility of effect). The diagram below, produced by IEMA for Environmental Impact Assessment, is utilised to judge the effect.



1.5 Assessment criteria used to assess significance of effects

Following identification of the sensitivity, extent and significance of the individual landscape and visual effects the overall effects are combined with each other. A judgement is then made by identifying the most significant effects, after mitigation, resulting in the likely impacts of the proposed development. The definitions of the final statement of significance are shown in **Table E**.

Table E: Definition of significance	
Significance of impact:	Definition of predicted effects:
Substantial beneficial (positive) effect	The proposals would result in: the scheme causing a significant improvement to the existing view

	successful mitigation providing significant improvements to landscape quality and character fitting in very well with the scale, landform and pattern of the existing landscape
Moderate beneficial (positive) effect	The proposals would result in: the scheme causing a noticeable improvement to the existing view successful mitigation providing noticeable improvements to landscape quality and character fitting in well with the scale, landform and pattern of the existing landscape
Slight beneficial (positive) effect	The proposals would result in: the scheme causing perceptible improvement in the existing view successful mitigation providing slight improvements to landscape quality and character fitting in with the scale, landform and pattern of the existing landscape
Not significant	The proposals would result in: the scheme causing no discernible deterioration or improvement to the existing view mitigation that neither deteriorates or improves landscape the scale, landform and pattern of the current landscape is broadly retained
Slight adverse (negative) effect	The proposals would result in: the scheme causing a slight perceptible deterioration to the existing view almost wholly success in mitigating adverse effects not quite fitting the landform and scale of the landscape
Moderate adverse (negative) effect	The proposals would result in: the scheme causing a noticeable deterioration to the existing view only partial mitigation of adverse effects variance to the existing landscape, out of scale or at odds with the local pattern and landform
Substantial adverse (negative) effect	The proposals would result in: the scheme being immediately apparent causing significant deterioration to the existing view no way of fully mitigating adverse effects considerable variance to the existing landscape, degrading the integrity of its overall character

APPENDIX B –GLOSSARY OF TERMS

Some of the terms listed below may not have been used within the document.

Characterisation	The process of identifying areas of similar landscape character, classifying and mapping them and describing their character.
Designated landscape	Areas of landscape identified as being of importance at international, national or local levels, either defined by statute or identified in development plans or other documents.
Elements	Individual parts which make up the landscape, such as, for example, trees, hedges and buildings.
Geographical Information System (GIS)	A system that captures, stores, analyses, manages and presents data linked to location. It links spatial information to a digital database.
Green Infrastructure (GI)	Network of green spaces and watercourses and water bodies that connect rural areas, villages, towns and cities.
Indirect effects	Effects that result indirectly from the proposed project as a consequence of the direct effects, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects.
Iterative design process	The process by which project design is amended and improved by successive stages of refinement which respond to growing understanding of environmental issues.
Key characteristics	Those combinations of elements which are particularly important to the current character of the landscape and help to give an area its particularly distinctive sense of place.
Land use	What land is used for, based on broad categories of functional land cover, such as urban and industrial use and the different types of agriculture and forestry.
Landform	An area, as perceived by people, the character of which is the result of the action and interaction of natural and /or human factors.
Landscape and Visual Impact Assessment (LVIA)	A tool used to identify and assess the likely significance of the effects of change resulting from development both on the landscape as an environmental resource in its own right and on people's views and visual amenity.
Landscape Character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Landscape Character Areas (LCA's)	These are single unique areas which are the discrete geographical areas of a particular landscape type.
Landscape Character Assessment	The process of identifying and describing variation in the character of the landscape, and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscape distinctive. The process results in the production of a Landscape Characterisation Assessment.
Landscape Effects	Effects on the landscape as a resource in its own right.
Landscape quality (condition)	A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual

	areas, the intactness of the landscape and the condition of individual elements.
Landscape receptors	Defined aspects of the landscape resource that have the potential to be affected by a proposal.
Landscape value	The relative value that is attached to different landscape by society. A landscape may be valued by different stakeholders for a whole variety of reasons.
Magnitude (of effect)	A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.
Photomontage	A visualisation which superimposes an image of a proposed development upon a photograph or series of photographs.
Scoping	The process of identifying the issues to be addressed by an EIA. It is a method of ensuring that an EIA focuses on the important issues and avoids those that are considered to be less significant.
Sensitivity	A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor.
Significance	A measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic.
Susceptibility (or vulnerability)	How susceptible or vulnerable the landscape receptor is to accommodate the proposed development without undue negative consequences for the maintenance of the baseline situation
Time depth	Historical layering –the idea of a landscape as a 'palimpsest, a much written –over manuscript.
Tranquillity	A state of calm and quietude associated with peace, considered to be a significant asset of landscape.
Visual amenity	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.
Visual effects	Effects on specific views and on the general visual amenity experienced by people.
Visual receptors	Individuals and/or defined groups of people who have the potential to be affected by a proposal.
Visualisation	A computer simulation, photomontage or other technique illustrating the predicted appearance of a development
Zone of Theoretical Visibility (ZTV)	A map, usually digitally produced, showing areas of land within which a development is theoretically visible.

APPENDIX C –FIGURES AND PLANS

Appendix 3 – Built Heritage Assessment (22/00205/FUL)

Built Heritage Assessment

Project name:	**Land to the West of Kidnappers Lane, Cheltenham**
Date:	9th December 2022
Project number:	P21-3479

1. Introduction

1.1. Pegasus Group have been commissioned by Newland Homes Limited to prepare a Built Heritage Assessment to consider the potential heritage issues relating to the residential development of land to the West of Kidnappers Lane, Cheltenham.

1.2. The site is located off Kidnappers Lane and immediately to the east of Hatherley Brook and the new secondary school development which adjoins Kidnappers Lane and Farm Lane. The site comprises a former garden/smallholding associated with a former nursery, further pasture and several disused agricultural structures.

Plate 1: North-east facing view from the south-west corner of the site.

1.3. The proposed application is for residential development, comprising 13no. net zero carbon dwellings with associated access, car parking, internal roads and footpaths, open space, landscaping and other associated works and infrastructure. This is illustrated in the Planning Layout Plan below (Plate 2).

Plate 2: Extract of Layout Plan.

2. Methodology, Legislation and Planning Policy

2.1. The full methodology utilised in the preparation of this Built Heritage Assessment is presented at **Appendix 1**.

2.2. Details of the heritage legislation and planning policies that are considered relevant to the following assessment works are presented at **Appendix 2**.

3. Built Heritage Assets

3.1. No built heritage assets are present within or in the immediate vicinity of the site (Plate 3).

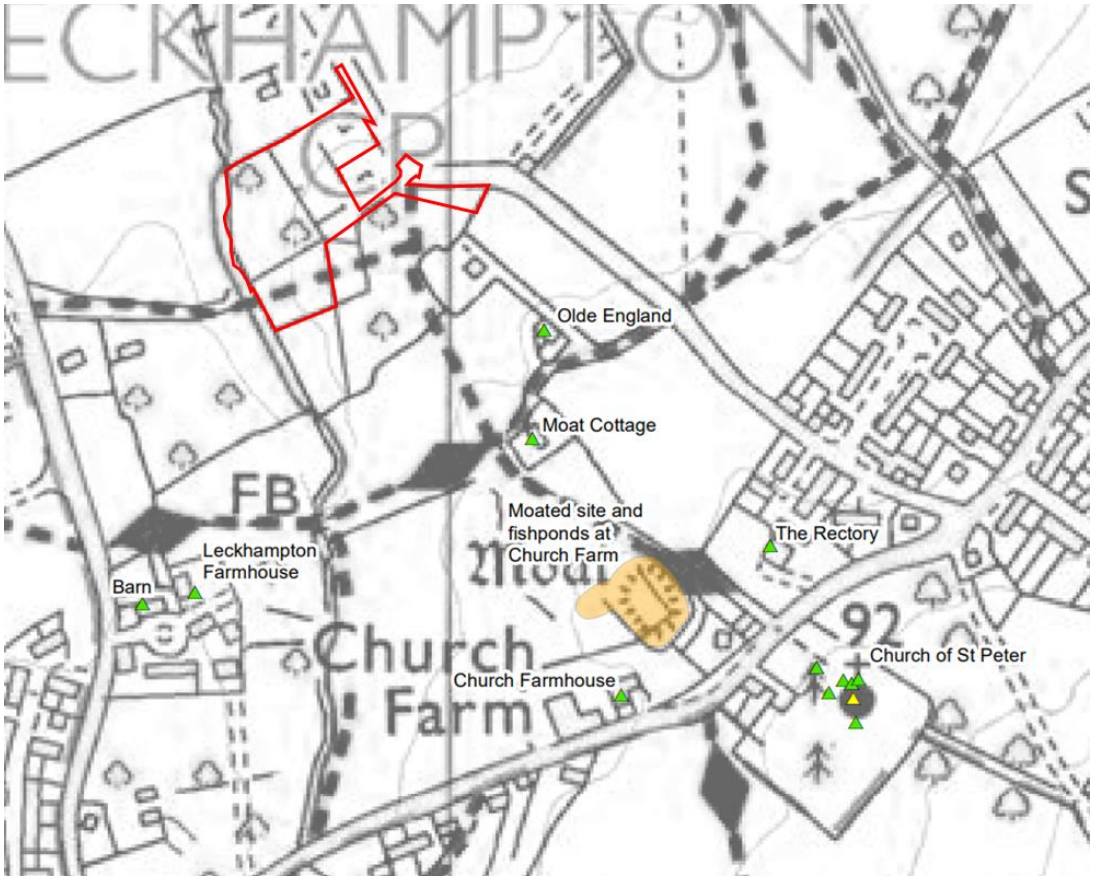


Plate 3: Listed Buildings and Scheduled Monument in the wider vicinity of the site.

3.2. Six Listed buildings and one Scheduled Monument are present in the wider area of land between Kidnappers Lane, Farm Lane and Church Road in which the site is also situated. In addition to this, the Grade II* Listed Church of St Peter and associated Grade II Listed buildings lies further to the south of Church Road.

3.3. Initial consideration has been made as to whether the site contributes to the heritage significance of any of these assets, which is summarised below. This equates to Step One of Historic England's guidance on the assessment of setting, *The Setting of Heritage Assets* (2017), and is presented in the bullet points below:

- **Church of St Peter and associated structures.** These assets all lie over 400m from the site, and are visually separated from it at ground level by vegetation and built form. Any views to the spire of the church from within the site are considered to be incidental. The site is not considered to contribute to the heritage significance of the asset, and no harm would be caused to the asset through the residential development of the site.

- **The Grade II Listed Rectory** lies north of Church Road, 390m south-east of the site. The main element of the setting of this asset, beyond its grounds, which contributes to its heritage significance is the church with which it has a historical association. Any

intervisibility with the site is at distance, beyond three fields, and would be heavily filtered. The site is not considered to contribute to the heritage significance of the asset, and no harm would be caused to the asset through the residential development of the site.

- **The Grade II Listed Church Farmhouse and adjacent Scheduled Moated site** lie between 325m and 400m south-east of the site, with the farmhouse facing south onto Church Road. The immediate setting of the assets has been changed through the construction of the large commercial complex to their west. Any intervisibility with the site is at distance, beyond fields, and would be heavily filtered. The site is not considered to contribute to the heritage significance of the assets, and no harm would be caused to the assets through the residential development of the site.

- **The Grade II Listed Leckhampton Farmhouse and associated barn** lie approximately 230m to the south-west of the site. Their context has been changed by their conversion to non-agricultural uses and the construction of additional houses to form a small residential estate. Visibility of the site is considered to be largely screened by the vegetation along the intervening Hatherley Brook. The site is not considered to contribute to the heritage significance of the asset, and no harm would be caused to the asset through the residential development of the site.

- **The Grade II Listed Moat Cottage** lies approximately 215m to the south-east of the site. This is a detached thatched cottage of late 16th-century to early 17th-century date. It lies within a defined garden plot, and its primary facades appear to face north-east and south-west. It has a rural location, surrounded by fields, although two other dwellings lie in close proximity to its north. The site lies beyond two fields and the other dwellings. Any intervisibility of the site (and residential development thereof) would be filtered and relatively distant. The site is not considered to make any contribution to the heritage significance of the asset through setting. As such, the residential development of the site could be achieved without causing harm to the heritage significance of the asset through setting.

- **The Grade II Listed Olde England** is another detached thatched cottage of 16th- to 17th-century date. It lies approximately 150m south-east of the site, but with another detached dwelling and its curtilage lying between the site and the asset. The site lies beyond the fields which provide the immediate rural setting of the site. Any intervisibility would heavily filtered or screened by vegetation and built form. As such, the site is not considered to contribute to the heritage significance of the asset through setting. The residential development of the site as proposed would cause no harm to the heritage significance of the asset through setting.

4. Conclusions

4.1. Consideration has been given as to whether the residential development of the site has the potential to cause harm to the heritage significance of the Listed Buildings and Scheduled Monument in the wider vicinity. No assets potentially sensitive to development within the site as proposed were identified, and no assets were taken forward for detailed assessment.

4.2. With reference to the levels of harm in the NPPF, the proposals will result in 'no harm' to the significance of the surrounding assets.

Appendix 1: Methodology

Assessment of significance

In the *NPPF*, heritage significance is defined as:

"The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting. For World Heritage Sites, the cultural value described within each site's Statement of Outstanding Universal Value forms part of its significance."[1]

Historic England's *GPA:2* gives advice on the assessment of significance as part of the application process. It advises understanding the nature, extent, and level of significance of a heritage asset.[2]

In order to do this, *GPA 2* also advocates considering the four types of heritage value an asset may hold, as identified in English Heritage's *Conservation Principles*.[3] These essentially cover the heritage 'interests' given in the glossaries of the *NPPF* and the *PPG* which are archaeological, architectural and artistic, and historic.[4]

The *PPG* provides further information on the interests it identifies:

- ***Archaeological interest:*** *As defined in the Glossary to the National Planning Policy Framework, there will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.*

- ***Architectural and artistic interest:*** These are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skills, like sculpture.

- ***Historic interest*:** An interest in past lives and events (including pre-historic). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history, but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity.[5]

Significance results from a combination of any, some, or all of the interests described above.

---

[1] DLUHC, *NPPF*, pp. 71-72.
[2] Historic England, *GPA:2*.
[3] Historic England, *Conservation Principles: Policies and Guidance for the Sustainable Management of the Historic Environment* (London, April 2008). These heritage values are identified as being 'aesthetic', 'communal', 'historical' and 'evidential', see idem pp. 28–32.
[4] DLUHC, *NPPF*, p. 71; DLUHC, *PPG, Annex 2*.
[5] DLUHC, *PPG*, paragraph 006, reference ID: 18a-006-20190723.

The most-recently issued Historic England guidance on assessing heritage significance, *HEAN:12*, advises using the terminology of the *NPPF* and *PPG*, and thus it is that terminology which is used in this Report. [6]

Listed Buildings and Conservation Areas are generally designated for their special architectural and historic interest. Scheduling is predominantly, although not exclusively, associated with archaeological interest.

Setting and significance

As defined in the NPPF:

"Significance derives not only from a heritage asset's physical presence, but also from its setting."[7]

Setting is defined as:

"The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral."[8]

Therefore, setting can contribute to, affect an appreciation of significance, or be neutral with regards to heritage values.

Assessing change through alteration to setting

How setting might contribute to these values has been assessed within this Report with reference to *GPA:3*, particularly the checklist given on page 11. This advocates the clear articulation of "*what matters and why*".[9]

In *GPA:3*, a stepped approach is recommended, of which Step 1 is to identify which heritage assets and their settings are affected. Step 2 is to assess whether, how and to what degree settings make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated. The guidance includes a (non-exhaustive) checklist of elements of the physical surroundings of an asset that might be considered when undertaking the assessment including, among other things: topography, other heritage assets, green space, functional relationships and degree of change over time. It also lists aspects associated with the experience of the asset which might be considered, including: views, intentional intervisibility, tranquillity, sense of enclosure, accessibility, rarity and land use.

Step 3 is to assess the effect of the proposed development on the significance of the asset(s). Step 4 is to explore ways to maximise enhancement and minimise harm. Step 5 is to make and document the decision and monitor outcomes.

A Court of Appeal judgement has confirmed that whilst issues of visibility are important when assessing setting, visibility does not necessarily confer a contribution to significance and factors other than

---

[6] Historic England, *Statements of Heritage Significance: Analysing Significance in Heritage Assets, Historic England Advice Note 12* (Swindon, October 2019).
[7] DLUHC, *NPPF*, p. 72.
[8] DLUHC, *NPPF*, p. 71.
[9] Historic England, *GPA:3*, pp. 8, 11.

visibility should also be considered, with Lindblom LJ stating at paragraphs 25 and 26 of the judgement (referring to an earlier Court of Appeal judgement):

Paragraph 25 – "But – again in the particular context of visual effects – I said that if "a proposed development is to affect the setting of a listed building there must be a distinct visual relationship of some kind between the two – a visual relationship which is more than remote or ephemeral, and which in some way bears on one's experience of the listed building in its surrounding landscape or townscape" (paragraph 56)".

Paragraph 26 – "This does not mean, however, that factors other than the visual and physical must be ignored when a decision-maker is considering the extent of a listed building's setting. Generally, of course, the decision-maker will be concentrating on visual and physical considerations, as in Williams (see also, for example, the first instance judgment in R. (on the application of Miller) v North Yorkshire County Council [2009] EWHC 2172 (Admin), at paragraph 89). But it is clear from the relevant national policy and guidance to which I have referred, in particular the guidance in paragraph 18a-013-20140306 of the PPG, that the Government recognizes the potential relevance of other considerations – economic, social and historical. These other considerations may include, for example, "the historic relationship between places". Historic England's advice in GPA3 was broadly to the same effect." [10]

Levels of significance

Descriptions of significance will naturally anticipate the ways in which impacts will be considered. Hence descriptions of the significance of Conservation Areas will make reference to their special interest and character and appearance, and the significance of Listed Buildings will be discussed with reference to the building, its setting and any features of special architectural or historic interest which it possesses.

In accordance with the levels of significance articulated in the *NPPF* and the *PPG*, three levels of significance are identified:

- **Designated heritage assets of the highest significance,** as identified in paragraph 200 of the NPPF, comprising Grade I and II* Listed buildings, Grade I and II* Registered Parks and Gardens, Scheduled Monuments, Protected Wreck Sites, World Heritage Sites and Registered Battlefields (and also including some Conservation Areas) and non-designated heritage assets of archaeological interest which are demonstrably of equivalent significance to Scheduled Monuments, as identified in footnote 68 of the NPPF;[11]

- **Designated heritage assets of less than the highest significance,** as identified in paragraph 200 of the NPPF, comprising Grade II Listed buildings and Grade II Registered Parks and Gardens (and also some Conservation Areas);[12] and

- **Non-designated heritage assets.** Non-designated heritage assets are defined within the PPG as "*buildings, monuments, sites, places, areas or landscapes identified by plan-making bodies as having a degree of significance meriting consideration in*

[10] Catesby Estates Ltd. V. Steer [2018] EWCA Civ 1697, paras. 25 and 26.
[11] DLUHC, *NPPF*, para. 200 and fn. 68.
[12] DLUHC, *NPPF*, para. 200.

planning decisions, but which do not meet the criteria for designated heritage assets".[13]

Additionally, it is of course possible that sites, buildings or areas have no heritage significance.

Assessment of harm

Assessment of any harm will be articulated in terms of the policy and law that the proposed development will be assessed against, such as whether a proposed development preserves or enhances the character or appearance of a Conservation Area, and articulating the scale of any harm in order to inform a balanced judgement/weighing exercise as required by the NPPF.

In accordance with key policy, the following levels of harm may potentially be identified for designated heritage assets:

- **Substantial harm or total loss.** It has been clarified in a High Court Judgement of 2013 that this would be harm that would "*have such a serious impact on the significance of the asset that its significance was either vitiated altogether or very much reduced*";[14] and

- **Less than substantial harm.** Harm of a lesser level than that defined above.

With regards to these two categories, the *PPG* states:

"Within each category of harm (which category applies should be explicitly identified), the extent of the harm may vary and should be clearly articulated."[15]

Hence, for example, harm that is less than substantial would be further described with reference to where it lies on that spectrum or scale of harm, for example low end, middle, and upper end of the less than substantial harm spectrum/scale.

With regards to non-designated heritage assets, there is no basis in policy for describing harm to them as substantial or less than substantial, rather the *NPPF* requires that the scale of any harm or loss is articulated whilst having regard to the significance of the asset. Harm to such assets is therefore articulated as a level of harm to their overall significance, using descriptors such as minor, moderate and major harm.

It is also possible that development proposals will cause no harm or preserve the significance of heritage assets. Here, a High Court Judgement of 2014 is relevant. This concluded that with regard to preserving the setting of a Listed building or preserving the character and appearance of a Conservation Area, "*preserving*" means doing "*no harm*".[16]

Preservation does not mean no change, it specifically means no harm. *GPA:2* states that "*Change to heritage assets is inevitable but it is only harmful when significance is damaged*".[17] Thus, change is

[13] DLUHC, *PPG*, paragraph 039, reference ID: 18a-039-20190723.
[14] Bedford Borough Council v Secretary of State for Communities and Local Government [2013] EWHC 2847 (Admin), para. 25.
[15] DLUHC, *PPG*, paragraph 018, reference ID: 18a-018-20190723.
[16] R (Forge Field Society) v Sevenoaks District Council [2014] EWHC 1895 (Admin).
[17] Historic England, *GPA:2*, p. 9.

accepted in Historic England's guidance as part of the evolution of the landscape and environment. It is whether such change is neutral, harmful or beneficial to the significance of an asset that matters.

As part of this, setting may be a key consideration. When evaluating any harm to significance through changes to setting, this Report follows the methodology given in *GPA:3*, described above. Fundamental to this methodology is a consideration of "*what matters and why*".[18] Of particular relevance is the checklist given on page 13 of *GPA:3.*[19]

It should be noted that this key document also states:

"Setting is not itself a heritage asset, nor a heritage designation…"[20]

Hence any impacts are described in terms of how they affect the significance of a heritage asset, and heritage interests that contribute to this significance, through changes to setting.

With regards to changes in setting, *GPA:3* states that:

"Conserving or enhancing heritage assets by taking their settings into account need not prevent change".[21]

Additionally, whilst the statutory duty requires that special regard should be paid to the desirability of not harming the setting of a Listed Building, that cannot mean that any harm, however minor, would necessarily require Planning Permission to be refused. This point has been clarified in the Court of Appeal.[22]

Benefits

Proposed development may also result in benefits to heritage assets, and these are articulated in terms of how they enhance the heritage interests, and hence the significance, of the assets concerned.

As detailed further in ***Appendix 2***, the *NPPF* (at Paragraphs 201 and 202) requires harm to a designated heritage asset to be weighed against the public benefits of the development proposals.[23]

Recent High Court Decisions have confirmed that enhancement to the historic environment should be considered as a public benefit under the provisions of Paragraphs 201 to 203.[24]

The *PPG* provides further clarity on what is meant by the term 'public benefit', including how these may be derived from enhancement to the historic environment ('heritage benefits'), as follows:

"Public benefits may follow from many developments and could be anything that delivers economic, social or environmental objectives as described in the National Planning Policy Framework (paragraph 8). Public benefits should flow from the proposed development. They should be of a nature or scale to be of benefit to the public at large and not just be a private

[18] Historic England*, GPA:3*, p. 8.
[19] Historic England*, GPA:3*, p. 13.
[20] Historic England, *GPA:3*, p. 4.
[21] Historic England, *GPA 3*., p. 8.
[22] Palmer v Herefordshire Council & Anor [2016] EWCA Civ 1061.
[23] DLUHC, *NPPF,* paras. 201 and 202.
[24] Including - Kay, R (on the application of) v Secretary of State for Housing Communities and Local Government & Anor [2020] EWHC 2292 (Admin); DLUHC, *NPPF,* paras. 201 and 203.

benefit. However, benefits do not always have to be visible or accessible to the public in order to be genuine public benefits, for example, works to a listed private dwelling which secure its future as a designated heritage asset could be a public benefit.

Examples of heritage benefits may include:

- ***sustaining or enhancing the significance of a heritage asset and the contribution of its setting***
- ***reducing or removing risks to a heritage asset***
- ***securing the optimum viable use of a heritage asset in support of its long term conservation."***[25]

Any "*heritage benefits*" arising from the proposed development, in line with the narrative above, will be clearly articulated in order for them to be taken into account by the decision maker.

[25] MHCLG, *PPG*, paragraph 020, reference ID: 18a-020-20190723.

Appendix 2: Legislation and Planning Policy

Legislation

Legislation relating to the built historic environment is primarily set out within the *Planning (Listed Buildings and Conservation Areas) Act 1990*, which provides statutory protection for Listed Buildings and Conservation Areas.[26] It does not provide statutory protection for non-designated or Locally Listed heritage assets.

Section 66(1) of the Act states that:

"In considering whether to grant planning permission [or permission in principle] for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State, shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses."[27]

In the 2014 Court of Appeal judgement in relation to the Barnwell Manor case, Sullivan LJ held that:

"Parliament in enacting section 66(1) did intend that the desirability of preserving the settings of listed buildings should not simply be given careful consideration by the decision-maker for the purpose of deciding whether there would be some harm, but should be given "considerable importance and weight" when the decision-maker carries out the balancing exercise."[28]

A judgement in the Court of Appeal ('Mordue') has clarified that, with regards to the setting of Listed Buildings, where the principles of the NPPF are applied (in particular paragraph 134 of the 2012 version of the NPPF, the requirements of which are now given in paragraph 202 of the current, revised NPPF, see below), this is in keeping with the requirements of the 1990 Act.[29]

In addition to the statutory obligations set out within the *Planning (Listed Buildings and Conservations Area) Act 1990*, Section 38(6) of the *Planning and Compulsory Purchase Act 2004* requires that all planning applications, including those for Listed Building Consent, are determined in accordance with the Development Plan unless material considerations indicate otherwise.[30]

The National Planning Policy Framework (July 2021)

National policy and guidance is set out in the Government's *National Planning Policy Framework* (*NPPF*) published in July 2021. This replaced and updated the previous *NPPF* 2019. The *NPPF* needs to be read as a whole and is intended to promote the concept of delivering sustainable development.

The *NPPF* sets out the Government's economic, environmental and social planning policies for England. Taken together, these policies articulate the Government's vision of sustainable development, which should be interpreted and applied locally to meet local aspirations. The *NPPF* continues to recognise that the planning system is plan-led and that therefore Local Plans, incorporating Neighbourhood Plans,

[26] UK Public General Acts, Planning (Listed Buildings and Conservation Areas) Act 1990.
[27] UK Public General Acts, Planning (Listed Buildings and Conservation Areas) Act 1990, Section 66(1).
[28] Barnwell Manor Wind Energy Ltd v (1) East Northamptonshire DC & Others [2014] EWCA Civ 137. para. 24.
[29] Jones v Mordue [2015] EWCA Civ 1243.
[30] UK Public General Acts, Planning and Compulsory Purchase Act 2004, Section 38(6).

where relevant, are the starting point for the determination of any planning application, including those which relate to the historic environment.

The overarching policy change applicable to the proposed development is the presumption in favour of sustainable development. This presumption in favour of sustainable development (the 'presumption') sets out the tone of the Government's overall stance and operates with and through the other policies of the *NPPF*. Its purpose is to send a strong signal to all those involved in the planning process about the need to plan positively for appropriate new development; so that both plan-making and development management are proactive and driven by a search for opportunities to deliver sustainable development, rather than barriers. Conserving historic assets in a manner appropriate to their significance forms part of this drive towards sustainable development.

The purpose of the planning system is to contribute to the achievement of sustainable development and the *NPPF* sets out three 'objectives' to facilitate sustainable development: an economic objective, a social objective, and an environmental objective. The presumption is key to delivering these objectives, by creating a positive pro-development framework which is underpinned by the wider economic, environmental and social provisions of the *NPPF*. The presumption is set out in full at paragraph 11 of the *NPPF* and reads as follows:

"Plans and decisions should apply a presumption in favour of sustainable development.

For plan-making this means that:

- ***a. all plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects;***
- ***b. strategic policies should, as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, unless:***
  - ***i. the application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area; or***
  - ***ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.***

For decision-taking this means:

- ***a. approving development proposals that accord with an up-to-date development plan without delay; or***
- ***b. where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:***
  - ***i. the application policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or***

> ***ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."***[31]

However, it is important to note that footnote 7 of the NPPF applies in relation to the final bullet of paragraph 11. This provides a context for paragraph 11 and reads as follows:

"The policies referred to are those in this Framework (rather than those in development plans) relating to: habitats sites (and those sites listed in paragraph 180) and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, an Area of Outstanding Natural Beauty, a National Park (or within the Broads Authority) or defined as Heritage Coast; irreplaceable habitats; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 68); and areas at risk of flooding or coastal change."[32] (our emphasis)

The *NPPF* continues to recognise that the planning system is plan-led and that therefore, Local Plans, incorporating Neighbourhood Plans, where relevant, are the starting point for the determination of any planning application.

Heritage Assets are defined in the *NPPF* as:

"A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. It includes designated heritage assets and assets identified by the local planning authority (including local listing)."[33]

The NPPF goes on to define a Designated Heritage Asset as a:

"World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under relevant legislation."[34]

As set out above, significance is also defined as:

"The value of a heritage asset to this and future generations because of its heritage interest. The interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting. For World Heritage Sites, the cultural value described within each site's Statement of Outstanding Universal Value forms part of its significance."[35]

Section 16 of the NPPF relates to 'Conserving and enhancing the historic environment' and states at paragraph 195 that:

"Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or

---

[31] DLUHC, *NPPF*, para. 11.
[32] DLUHC, *NPPF*, para. 11, fn. 7.
[33] DLUHC, *NPPF*, p. 67.
[34] DLUHC, *NPPF*, p. 66.
[35] DLUHC, *NPPF*, pp. 71-72.

minimise any conflict between the heritage asset's conservation and any aspect of the proposal."[36]

Paragraph 197 goes on to state that:

"In determining planning applications, local planning authorities should take account of:

a. ***the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;***

b. ***the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and***

c. ***the desirability of new development making a positive contribution to local character and distinctiveness."***[37]

With regard to the impact of proposals on the significance of a heritage asset, paragraphs 199 and 200 are relevant and read as follows:

"When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance."[38]

"Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of:

a. ***grade II listed buildings, or grade II registered parks or gardens, should be exceptional;***

b. ***assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional."***[39]

Section b) of paragraph 200, which describes assets of the highest significance, also includes footnote 68 of the NPPF, which states that non-designated heritage assets of archaeological interest which are demonstrably of equivalent significance to Scheduled Monuments should be considered subject to the policies for designated heritage assets.

In the context of the above, it should be noted that paragraph 201 reads as follows:

"Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be

[36] DLUHC, *NPPF*, para. 195.
[37] DLUHC, *NPPF*, para. 197.
[38] DLUHC, *NPPF*, para. 199.
[39] DLUHC, *NPPF*, para. 200.

demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

- ***a. the nature of the heritage asset prevents all reasonable uses of the site; and***
- ***b. no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and***
- ***c. conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and***
- ***d. the harm or loss is outweighed by the benefit of bringing the site back into use."***[40]

Paragraph 202 goes on to state:

"Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use."[41]

With regards to non-designated heritage assets, paragraph 203 of NPPF states that:

"The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset."[42]

Overall, the NPPF confirms that the primary objective of development management is to foster the delivery of sustainable development, not to hinder or prevent it. Local Planning Authorities should approach development management decisions positively, looking for solutions rather than problems so that applications can be approved wherever it is practical to do so. Additionally, securing the optimum viable use of sites and achieving public benefits are also key material considerations for application proposals.

National Planning Practice Guidance

The then Department for Communities and Local Government (now the Department for Levelling Up, Housing and Communities (DLUHC)) launched the planning practice guidance web-based resource in March 2014, accompanied by a ministerial statement which confirmed that a number of previous planning practice guidance documents were cancelled.

This also introduced the national Planning Practice Guidance (PPG) which comprised a full and consolidated review of planning practice guidance documents to be read alongside the NPPF.

The PPG has a discrete section on the subject of the Historic Environment, which confirms that the consideration of 'significance' in decision taking is important and states:

[40] DLUHC, *NPPF*, para. 201.
[41] DLUHC, *NPPF*, para. 202.
[42] DLUHC, *NPPF*, para. 203.

"Heritage assets may be affected by direct physical change or by change in their setting. Being able to properly assess the nature, extent and importance of the significance of a heritage asset, and the contribution of its setting, is very important to understanding the potential impact and acceptability of development proposals."[43]

In terms of assessment of substantial harm, the PPG confirms that whether a proposal causes substantial harm will be a judgement for the individual decision taker having regard to the individual circumstances and the policy set out within the NPPF. It goes on to state:

"In general terms, substantial harm is a high test, so it may not arise in many cases. For example, in determining whether works to a listed building constitute substantial harm, an important consideration would be whether the adverse impact seriously affects a key element of its special architectural or historic interest. It is the degree of harm to the asset's significance rather than the scale of the development that is to be assessed. The harm may arise from works to the asset or from development within its setting.

While the impact of total destruction is obvious, partial destruction is likely to have a considerable impact but, depending on the circumstances, it may still be less than substantial harm or conceivably not harmful at all, for example, when removing later inappropriate additions to historic buildings which harm their significance. Similarly, works that are moderate or minor in scale are likely to cause less than substantial harm or no harm at all. However, even minor works have the potential to cause substantial harm."[44] (our emphasis)

National Design Guide:

Section C2 relates to valuing heritage, local history and culture and states:

"When determining how a site may be developed, it is important to understand the history of how the place has evolved. The local sense of place and identity are shaped by local history, culture and heritage, and how these have influenced the built environment and wider landscape."[45]

"Sensitive re-use or adaptation adds to the richness and variety of a scheme and to its diversity of activities and users. It helps to integrate heritage into proposals in an environmentally sustainable way."[46]

It goes on to state that:

"Well-designed places and buildings are influenced positively by:

- ***the history and heritage of the site, its surroundings and the wider area, including cultural influences;***
- ***the significance and setting of heritage assets and any other specific features that merit conserving and enhancing;***

[43] DLUHC, *PPG*, paragraph 007, reference ID: 18a-007-20190723.
[44] DLUHC, *PPG*, paragraph 018, reference ID: 18a-018-20190723.
[45] DLUHC, *NDG*, para. 46.
[46] DLUHC, *NDG*, para. 47.

- ***the local vernacular, including historical building typologies such as the terrace, town house, mews, villa or mansion block, the treatment of façades, characteristic materials and details - see Identity.***

Today's new developments extend the history of the context. The best of them will become valued as tomorrow's heritage, representing the architecture and placemaking of the early 21st century."[47]

[47] DLUHC, *NDG*, paras. 48-49.

Appendix 4 – Ecological Impact Assessment (22/00205/FUL)

ethos
Environmental Planning

Ecological Impact Assessment

Land at The Nurseries, Leckhampton

November 2022

Ecology | Green Space | Community | GIS
Unit 1, Brassmill Lane Enterprise Centre | Bath | BA1 3JN
01225444114 | info@ethosep.co.uk
www.ethosep.co.uk

Report Produced for	**Newland Homes**
Written by:	**Katie Munday, Assistant Ecologist**
Checked by:	**Stephanie Green, Principal Ecologist**
Approved by:	**Jim Phillips, Managing Director**
Issue:	**Final**
Date:	**November 2022**
Project:	**ETH21-227**

CONTENTS

SUMMARY

Purpose of the Report	This Report has been produced by Ethos Environmental Planning on behalf of Newland Homes. It provides an assessment of the likely ecological effects associated with the proposed residential development of an area of land known as 'Land at The Nurseries, Leckhampton'.
Description of the scheme	The development proposals for the site include plans for 13 new carbon zero residential dwellings with associated access and green space.
Methodology	An Ecological Walkover was undertaken in 2021. A UK Habitat Classification survey and desk study were undertaken in 2022, followed by targeted surveys for bats and riparian mammals.
Baseline Ecological Conditions	• The site is located approximately 5.2km from the Cotswold Beechwoods SAC and is therefore within the identified Zone of Influence. • The site comprised a field of other neutral grassland with hedgerows along all but the north-eastern and southern boundaries and a brook along the western boundary. There were some derelict structures in the northern section of the site. • Otter may use the Hatherley Brook for commuting within the local area. • Moderate levels of bat activity have been recorded on site. Fourteen species of bat were recorded across the site, including lesser horseshoe bat, greater horseshoe bat and barbastelle bat. Bat activity was focused along the hedgerows, with some bats commuting across the site. • The hedgerows have potential to be used by breeding birds, commuting/ foraging badger, and NERC S41 mammals (hedgehog and polecat).
Key impacts and mitigation	• The development layout has been designed to retain, protect and enhance the most valuable ecological features, namely the boundary hedgerows and the brook corridor. • A buffer will be required along the Hatherley Brook, which is outside of residential ownership and able to be managed in perpetuity by a management company, to avoid impacts on the brook. • A lighting plan has been produced (Appendix 2) which demonstrates a dark corridor can be maintained along the Hatherley Brook to safeguard species present. • Mitigation measures are described to ensure compliance with protected species legislation for bats, nesting birds, NERC S41 mammals, badger and otter. • A financial contribution will be required, to be set out by S106 agreement, to compensate for impacts on the Cotswold Beechwoods SAC as a result of increased residential pressure, in line with local planning policy.
Conclusion	Assuming the implementation of effective mitigation measures, as set out in this report, no significant adverse ecological effects are predicted. Habitat enhancement measures are described for areas of open space on site. The proposed development is therefore in accordance with relevant national and local planning policies in relation to nature conservation and relevant wildlife legislation.

1 INTRODUCTION

1.1 This report has been prepared by Ethos Environmental Planning (Ethos) on behalf of Newland Homes. The EcIA was written by Kate Munday, Assistant Ecologist, and reviewed by Stephanie Green MSc BSc (Hons), Principal Ecologist at Ethos. The final report has been approved by Jim Phillips, Managing Director at Ethos. The details and experience of the authors and field survey team are provided in Section 3.16.

1.2 The report provides the results of an Ecological Impact Assessment (EcIA) in relation to the development of Land at The Nurseries, Leckhampton (Central Grid Reference SO 93913 19742), hereafter referred to as 'the site' and shown in Figure 1. The site is located in the Parish of Leckhampton in Cheltenham, with Hatherley Brook running along the western boundary.

1.3 The site comprises an area of other neutral grassland bordered by hedgerows on all but the north-eastern boundary. The total site area is 1.3 hectares.

Figure 1 Site location

1.4 The site is proposed for development of thirteen new zero carbon residential houses and associated infrastructure.

1.5 This assessment is based on surveys undertaken in 2022 comprising a UK Habitat Classification (UKHab) survey, bat and riparian mammal surveys.

1.6 The aims of this EcIA report are to:

- provide an assessment of the likely effects of the proposed development on ecological features on site;
- provide an assessment of the likely effects of the proposed development on the integrity of the Cotswold Beechwoods SAC;
- identify the measures required to mitigate impacts on site biodiversity; and
- identify opportunities to deliver ecological enhancements on site.

1.7 This report has been produced following the approach set out in CIEEM's 'Guidelines for Ecological Report Writing' (CIEEM, 2017).

2 POLICY AND LEGISLATION

2.1 National Policy

2.1.1 The **National Planning Policy Framework (NPPF)** sets out national planning policy, including policies of relevance to conserving and enhancing the natural environment. Policies of relevance to the proposed development (parts of paragraphs 180 and 185) have been summarised below:

Para 180: When determining planning applications, local planning authorities should apply the following principles:

a) 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, then planning permission should be refused;

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Para 185: c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

2.2 Local Policy

2.2.1 Gloucester, Cheltenham and Tewkesbury Joint Core Strategy 2011-2031

The Joint Core Strategy (JCS) for Gloucester, Cheltenham and Tewkesbury was adopted in 2017. The following policies from the Joint Core Strategy relate to nature conservation and development.

2.2.2 Policy SD9: Biodiversity and Geodiversity

1) *The biodiversity and geological resource of the JCS area will be protected and enhanced in order to establish and reinforce ecological networks that are resilient to current and future pressures. Improved community access will be encouraged so far as is compatible with the conservation of special features and interests.*

2) *This will be achieved by:*

- *Ensuring that European Protected Species and National Protected Species are safeguarded in accordance with the law;*

- *Conserving and enhancing biodiversity and geodiversity on internationally, nationally and locally designated sites, and other assets of demonstrable value where these make a contribution to the wider network, thus ensuring that new development both within and surrounding such sites has no unacceptable adverse impacts;*
- *Encouraging new development to contribute positively to biodiversity and geodiversity whilst linking with wider networks of green infrastructure. For example, by incorporating habitat features into the design to assist in the creation and enhancement of wildlife corridors and ecological stepping stones between sites;*
- *Encouraging the creation, restoration and beneficial management of priority landscapes, priority habitats and populations of priority species. For example, by securing improvements to Strategic Nature Areas (as set out on the Gloucestershire Nature Map) and Nature Improvement Areas.*

3) *Harm to the biodiversity or geodiversity of an undesignated site or asset should be avoided where possible. Where there is a risk of harm as a consequence of development, this should be mitigated by integrating enhancements into the scheme that are appropriate to the location and satisfactory to the Local Planning Authority. If harm cannot be mitigated on-site then, exceptionally, compensatory enhancements off-site may be acceptable.*

2.2.3 Policy INF3: Green Infrastructure

1) *The green infrastructure network of local and strategic importance will be conserved and enhanced, in order to deliver a series of multifunctional, linked green corridors across the JCS area by:*

- *Improving the quantity and / or quality of assets;*
- *Improving linkages between assets in a manner appropriate to the scale of development; and*
- *Designing improvements in a way that supports the cohesive management of green infrastructure.*

2) *Development proposals should consider and contribute positively towards green infrastructure, including the wider landscape context and strategic corridors between major assets and populations. Where new residential development will create, or add to, a need for publicly accessible green space or outdoor space for sports and recreation, this will be fully met in accordance with Policy INF4. Development at Strategic Allocations will be required to deliver connectivity through the site, linking urban areas with the wider rural hinterland.*

3) *Existing green infrastructure will be protected in a manner that reflects its contribution to ecosystem services (including biodiversity, landscape / townscape quality, the historic environment, public access, recreation and play) and the connectivity of the green infrastructure network. Development proposals that will*

have an impact on woodlands, hedges and trees will need to include a justification for why this impact cannot be avoided and should incorporate measures acceptable to the Local Planning Authority to mitigate the loss. Mitigation should be provided on-site or, where this is not possible, in the immediate environs of the site.

4) *Where assets are created, retained or replaced within a scheme, they should be properly integrated into the design and contribute to local character and distinctiveness. Proposals should also make provisions for future maintenance of green infrastructure.*

The Cheltenham Plan

2.2.4 Biodiversity and Geodiversity

In addition to the protection and enhancement of areas of particular wildlife and geological significance, the Council is concerned to ensure that other habitats and features are conserved and improved. The Council recognises the contribution that small landscape features, such as shrubs and thickets, ponds, meadows and copses can make to the ecology and biodiversity of an area, especially where such features are linked.

Continuous green areas - such as large linear open spaces, hedgerows, tree-lined roadside verges or banks, disused railway lines or watercourses, and green lanes - have greater ecological value than isolated spaces. Such 'green corridors' provide connected linkages for wildlife through the developed areas of the town or the countryside, as well as being important sites in their own right.

The Council will continue to work alongside the Environment Agency in meeting its conservation objectives and will require consideration of the impact of development upon the ecology and wildlife potential of the water-based environment. It will also seek to promote and enhance the natural water system in the Borough by making decisions that:

- *conserve existing areas of value within river corridors;*
- *assist in the restoration and enhancement of watercourses for the purposes of conservation and amenity;*
- *encourage developers to fully integrate watercourses into their developments;*
- *encourage developers to apply sustainable drainage principles when designing land drainage systems.*

The Council will seek to protect all species and habitats listed in the UK Biodiversity Framework and Gloucestershire Nature Map from development that would harm those features in accord with legislative requirements and Policy SD9 of the JCS. The Council will normally require a survey of biodiversity features to be submitted with

planning applications which will need to be accompanied by an account of appropriate measures to help safeguard such features during construction and thereafter.

Where there is conflict between the development proposal and the need to protect those natural features identified, the Council will weigh the relative merits of the development proposal and the value of the natural feature or habitat under threat and, in any case, will seek advice from Natural England, the Gloucestershire Wildlife Trust, or other professional bodies as necessary and appropriate.

A holistic approach will be adopted in the assessment of proposals, which takes into account not only the natural characteristics of each individual site but also the wider context of that site and how it relates to surrounding biodiversity networks and ecosystems. A key consideration will be the cumulative effect of allowing one development after another and the potential damage that can arise through piecemeal erosion of biodiversity interests.

Green Infrastructure

2.2.5 Green spaces are essential in providing habitats for a wide range of flora and fauna. Some green spaces, particularly the more extensive and relatively undisturbed grounds of large houses and non-residential properties, may also harbour legally protected species such as barn owls, badgers and bats. Green spaces are therefore of significance to nature conservation.

Trees enhance development by softening the appearance of built structures and creating a sense of maturity. Development sites often contain trees, which can be incorporated into development schemes. Such trees, together with new planting, can add economic as well as environmental value to development.

The Council will also seek possibilities for new planting, both in conjunction with development, and separately. The Borough Council has prepared a guidance leaflet giving information and advice regarding trees on development sites. The leaflet provides guidance to developers on an appropriate approach to existing trees on and within the sphere of influence of a site, as well as planting, both in terms of species and contribution to urban design.

Policy BG1: Cotswold Beechwoods Special Area of Conservation

2.2.6 Development will not be permitted where it would be likely to lead directly or indirectly to an adverse effect upon the integrity of the European Site network (alone or in combination), and the effects cannot be mitigated.

In order to retain the integrity of the Cotswold Beechwoods Special Area of Conservation (SAC) all development within the borough that leads to a net increase in dwellings will be required to mitigate any adverse effects.

The ongoing work by relevant partner authorities will culminate in a mitigation and implementation strategy. Development proposals must contribute towards mitigation specified in the mitigation and implementation strategy or provide information for a bespoke Habitats Regulations Assessment. This may include requiring housing developments to make contributions towards habitat management; access management and visitor infrastructure; publicity, education and awareness raising; the provision of suitable open and green space within development sites where this can be accommodated, and where it cannot, by contributions to off-site alternative green space.

While the evidence base and the mitigation and implementation strategy are in production development proposals must address the issues raised in any relevant Habitat Regulations Assessments. Mitigation measures should take into account and integrate with adopted JCS policy INF3 (Green infrastructure) and the associated JCS Green Infrastructure Strategy.

The Council is committed to the production of a mitigation and implementation strategy. A review of relevant parts of the plan will take place if the strategic mitigation and implementation scheme has not progressed to the implementation phase after five years.

2.3 Relevant Legislation

2.3.1 The following pieces of legislation have been considered within this assessment with an explanation of their relevance provided.

Legislation	Relevance
The Habitats Directive (together with the Birds Directive) forms the cornerstone of Europe's nature conservation policy. It is built around two pillars: the Natura 2000 network of protected sites and the strict system of species protection. All in all, the Directive protects over 1,000 animals and plant species and over 200 "habitat types" (e.g. special types of forests, meadows, wetlands, etc.), which are of European importance. The Habitats Directive and parts of the Birds Directive are transposed into legislation by **The Conservation of Species and Habitat Regulations 2017 (as amended).**	Presence of Cotswold Beechwoods SAC within the Zone of Influence. Presence of commuting/ foraging bats on site, utilising hedgerows. Potential presence of otter along Hatherley Brook.
Wildlife and Countryside Act 1981 (as amended, including by the Countryside and Rights of Way Act 2000), which provides legislative protection for certain species. The Act also prohibits the spread of invasive plant species, as well as providing the mechanism for the designation and protection of Sites of Special Scientific Interest.	Potential for nesting birds in hedgerows.
The **Natural Environment and Rural Communities Act 2006** (the NERC act) places a duty on all public authorities, including local planning authorities, to consider biodiversity in their work. Local	Enhancements for biodiversity.

Legislation	Relevance
planning authorities are to ensure that there is no net loss of biodiversity on a site, no net loss in habitat connectivity and aims to enhance biodiversity.	Presences of Habitats of Principal Importance in England; Hedgerows and river Potential presence of hedgehog and polecat (NERC S41 species)
The **Hedgerows Regulations 1997** protect 'important hedgerows' from being removed (uprooted or destroyed). Hedgerows are protected if they are at least 30 years old and meet at least one of the criteria listed in part II of schedule 1.	Presence of native hedgerows on site boundaries.
Badgers and their setts are protected under the **Protection of Badgers Act 1992** as amended by the Hunting Act 2004.	Potential presence of foraging and commuting badgers on site.

3 METHODOLOGY

3.1 Scope of Assessment

3.1.1 This assessment has been undertaken following the approach set out in the '*Guidelines for Ecological Impact Assessment in the UK and Ireland*' (CIEEM, 2018). The assessment has considered 'Important Ecological Features' that are present within the 'Zone of Influence' of the project. Important Ecological Features for this project comprise[1]:

- Designated nature conservation sites;
- Habitats and Species of Principal Importance for the Conservation of Biodiversity in England;
- Legally protected species; and
- Red Listed or rare species (based on Red Data Book lists, Birds of Conservation Concern and species considered to be nationally rare / scare).

3.1.2 The Zone of Influence (ZoI) is the area over which the project could have an influence on ecological features. The ZoI is likely to vary for different features. However, in general terms the ZoI for this development proposal is considered to comprise the land within the red line boundary as well as immediate adjacent habitat features. The site is located within the 15.4km ZoI of the Cotswold Beechwoods SAC and 24.3km east of the nearest component part of the Wye Valley and Forest of Dean Bat Site SAC, which are also considered within this EcIA.

3.1.3 The scope of the assessment was informed by an 'ecological walkover' undertaken in October 2021. The purpose of this was to identify the habitats on site, their potential for protected species and to establish the scope of surveys that would be required to inform a future planning application at the site. This was relayed to Newland Homes who subsequently commissioned the follow up surveys in 2022.

3.1.4 The overall assessment has been informed by guidelines provided in CIEEM (2017) Guidelines for Ecological Report Writing.

3.2 Desk Study

3.2.1 A background data search was received from Gloucester Centre for Environmental Records (GCER) in July 2022. The search area included records of non-statutory designated sites and protected and notable species within 1km of the proposed development site.

[1] Box 14 in CIEEM's ECiA Guidelines (2018)

3.2.2 A search for designated sites and granted European Protected Species (EPS) licences within 1km of the site boundary was undertaken using publicly available information (DEFRA Magic map).

3.2.3 The site was located in proximity to several other areas of land proposed for development, as shown in Figure 2. Ecological surveys for bats, badger, breeding birds, hazel dormouse, reptiles, great crested newts and riparian mammals were carried out between 2016 and 2019 for the proposed development on the land at site A (HDA, 2020). The site is connected to the land at site A via Hatherley Brook. The key results for these surveys are summarised in Section 4.1.

3.2.4 An Ecological Assessment was also undertaken for Land North of Church Road, Leckhampton (Tyler Grange, 2021), which is located adjacent to the east of location B (Figure 2). Surveys comprised a Phase 1 Habitat Survey and targeted surveys for badger, bats, dormouse, otter, reptiles, water vole and invertebrates. Results of the surveys are detailed in Section 4.1.

Figure 2 Land proposed for development within proximity of site (Newland Homes, 2022)

3.3 UK Habitat Classification Survey

3.3.1 The habitat survey has drawn on guidance provided in the *Handbook for Phase 1 Habitat Survey – a technique for environmental audit* (JNCC, 2010). The classification and mapping of habitats has used the UK Habitat Classification (UKHab) as this links directly to the biodiversity net gain calculator and assessment. Every habitat feature is given a Primary Habitat code and, where necessary, more detail has been added with the use of Secondary Codes. UKHab has its own symbology which has been used when creating maps for the existing and proposed habitats.

3.3.2 A UKHab survey was undertaken in July 2022. The survey incorporated detailed assessment of the land within the development boundary, including a description and mapping of all key features and habitat types. The survey was carried out to identify the range of habitats within the site and the predominant and notable species of flora.

4.3.3 The hedgerows have been surveyed to determine their status and condition in line with UKHab criteria.

3.4 NERC S41 Mammals

3.4.1 The survey included an assessment of the habitats on site for their potential to support NERC Section 41 species such as hedgehog *(Erinaceus europaeus)*, polecat *(Mustela putorius)*, harvest mouse *(Micromys minutus)* and brown hare *(Lepus europaeus)*.

3.5 Badger

3.5.1 The survey for badger *(Meles meles)* included a search of the development site for any evidence of badgers, including setts, foraging signs (snuffle holes), runs and latrines.

3.6 Hazel Dormouse

3.6.1 The survey included an assessment of the potential of the site for hazel dormouse *(Muscardinus avellanarius)*, focusing on the connectivity and suitability of the habitat on site.

3.7 Otter

3.7.1 Hatherley Brook is located along the western boundary of the site and was assessed for its potential to support otter and water vole. A detailed otter survey was undertaken across the stretch of the brook on 7th July 2022 and 13th September 2022. The surveys involved searching along the banks of the brook for signs of otter activity.

3.7.2 The methodology was informed by English Nature's advice sheet Monitoring the Otter, Conserving Natura 2000 Rivers Monitoring Series No. 10 and the national otter survey of Wales 2002. Principal field signs for otter are:

- Holts – underground shelters, often found under tree roots, in rock piles, earth banks, and can be located within existing structures such as badger setts, rabbit burrows, fox earths. Above ground shelters in dense scrub by vegetation.
- Couches – lying up places above ground. Often found in long grasses, dense vegetation or rushes near watercourses or in wetland areas.
- Feeding sites – where food remains are found, mainly fish, shellfish or amphibians.
- Spraints – faeces left by the otter, showing food remains. Typically, in prominent positions on rocks, trees or tree roots, beneath bridges, at crossing points of fences or walls, or confluence of river systems. Spraints can be placed in one of three categories: old, recent or fresh. This provides some indication of the level and most recent occurrence of activity.
- Tracks – otter tracks (typically footprints) are highly distinctive and diagnostic and clearly differentiated from mink tracks by both size and shape.

3.8 Water Vole

3.8.1 Methodology for surveying water vole was in line with best practice guidance within the *Water Vole Mitigation Handbook* (2016). The surveys were undertaken on 7th July 2022 and 13th September 2022. The two surveys were undertaken during the optimal period (May to September) when voles are active and were carried out across the season and over two months apart (following best practice) to maximise the chances of finding evidence.

3.8.2 The surveys entailed a search for the following evidence to indicate presence of water voles:

- Sightings;
- Footprints;
- Run-ways in vegetation;
- Burrows;
- Lawns;
- Nests;
- Feeding stations;
- Faeces and latrines.

3.9 Bats

Habitats

3.9.1 The habitats on site were assessed for their suitability to support foraging and commuting bats. This assessment was also contextualized through examination of suitable habitat and features in the wider landscape and possible flight-lines across the proposed site following natural linear features such as hedgerows.

3.9.2 An assessment of the trees to support roosting bats was undertaken. Potential roosting features on trees were identified as any feature within a tree that could provide shelter for a roosting bat. These features result from the following three mechanisms: disease and decay, damage, and associations.

Structures

3.9.3 A physical external and internal inspection of all buildings on site were undertaken. The physical search includes a search for live animals and a search for other signs that give an indication of past or present occupancy as outlined below. In the case of bats, typical indicators include droppings (which are characteristic and can often be speciated or at least be indicative of species type), signs of staining, urine splashing, characteristic odours, and accumulations of discarded prey remains.

Activity Surveys

3.9.4 Three dusk activity surveys were undertaken at the site on 7th July 2022, 25th August 2022 and 22nd September 2022. The activity surveys were carried out between July and September to gain an understanding of bat activity across the peak bat season.

3.9.5 The survey involved a pair of surveyors walking a transect around the site, as shown in Figure 3. The surveys began at, or close to, sunset and finished two hours after sunset. The bat detectors used during the surveys were Echo Meter Touch detectors.

Figure 3 Bat activity transect

Static Detector Surveys

3.9.6 Two static bat detectors were deployed across the site between July and September 2022. The detectors were deployed in similar locations during the monitoring period to enable comparison of bat activity during the different seasons. The two static locations for the survey period are shown in Figure 4.

3.9.7 The detectors used were Wildlife Acoustics Song Meter 4 (SM4) passive bat detectors. The detectors provided an assessment of bat activity across the site and highlighted areas of high activity. All calls recorded were analysed via the BTO Acoustic Pipeline and Ecobat.

3.9.8 The survey dates were as follows:

- Detector 1 (P1) – 7th July – 12th July 2022
- Detector 2 (P2) – 7th July – 12th July 2022
- Detector 3 (P1) – 25th August – 31st August 2022
- Detector 4 (P2) – 25th August – 31st August 2022
- Detector 5 (P1) – 13th September – 18th September 2022
- Detector 6 (P2) – 13th September – 18th September 2022

Figure 4 Static detector locations

3.10 Birds

3.10.1 The bird survey included an assessment of the habitats on site for their potential to support protected and notable species of bird as well as their potential to support breeding birds.

3.11 Reptiles

3.11.1 The potential presence of reptiles on site was assessed considering the habitats present (availability of refugia and basking areas) and suitability of surrounding environment. Where possible, attempts to confirm reptile presence on site were made following *Froglife Advice Sheet 10 – Surveying for Reptiles* through direct observation in reptile "hotspots" and checking of any existing refugia.

3.12 Amphibians

3.12.1 The habitats on site were assessed for their potential to support amphibian species, including great crested newt (*Triturus cristatus)* (GCN). This included an examination of suitable waterbodies and for breeding terrestrial habitat and terrestrial habitats which may provide sufficient structured vegetation in which amphibians may forage or hibernate

3.12.2 In addition to the on-site assessment, *Great Crested Newt Mitigation Guidelines* (English Nature, 2001) recommend that a desktop analysis of ponds within 500m of the site be undertaken, to identify any potential breeding ponds which may require further survey. Ponds within 500m of the site were mapped on GIS with an OS OpenData base map at 1:10,000 resolution.

3.13 Invertebrates

3.13.1 Due to the many invertebrate taxonomic groups that exist, the often-large differences in invertebrate diversity between habitats and the many survey techniques available, invertebrate surveys are highly specific to individual sites. Therefore, an assessment of the potential site for invertebrates was undertaken, including the need for targeted surveys.

3.14 Limitations

3.14.1 The initial Ecological Walkover, UKHab and protected species surveys were all undertaken within the suitable survey period (March to October) for identifying botanical species.

3.14.2 The September bat activity survey was rained off after 1 hour 10 minutes due to bad weather. Therefore, the full two hours after sunset was not gained for this survey. As the other two bat surveys were undertaken for two hours in line with guidance, and the activity transects were supplemented by static detector surveys which gain insight into bat activity across the survey period, this is not considered a significant limitation to the assessment.

3.15 Evaluation of Ecological Features

4.6.1 In line with CIEEMs guidelines on EcIA, this assessment has focused on relevant Important Ecological Features. The scale of importance of these features has been determined based on available contextual information, which for this project are considered to include:

- **International** – of importance of importance in England and protected through international legislation;
- **National** – of importance in England and protected through national legislation;
- **County** – of importance to the County (Gloucestershire) but not sufficiently important to warrant 'National' scale of importance; and

- **Local** – of importance to the District of Cheltenham but not sufficiently important to warrant County scale of importance.

4.6.2 Potential impacts on Important Ecological Features are identified and assessed; likely significant effects are those likely to result in a change to the conservation status of a habitat or species population or undermine/support nature conservation policy. Mitigation measures have been devised following the mitigation hierarchy; appropriate mechanisms for securing mitigation measures have been identified.

3.16 Personnel

The surveyors on site are shown in Table 1. The survey team is assessed to have the varied skills and experience required to support a robust ecological appraisal of the site.

Table 1 Site surveyors

Ecologist	Position	Qualification/Licence	Experience	Role in Assessment
Jim Philips	Managing Director	MSc BSc (Hons), MCIEEM Class 2 Bat Licence Class 1 GCN Licence	Jim's experience in ecology covers a wide range of projects and clients and his focus is on interpreting relevant policy and legislation to ensure projects are delivered efficiently and meet the needs of the client. He holds survey licences for bats and GCN in England and Wales and is a registered consultant on Natural England's Bat Low Impact Class License (BLICL).	Approve final report
Matt Attrill	Senior Ecologist	BSc (Hons), Grad CIEEM Class 2 Bat Licence Class 1 GCN Licence	Matt is a highly experienced field surveyor with over 6 years ecological experience. Matt is competent in surveying for a wide variety of wildlife gained experience from both the commercial and voluntary sectors.	Bat surveyor
Martin Smith	Senior Ecologist	BSc (Hons), Grad CIEEM Class 2 Bat Licence (NE) Class 1 dormouse licence (NE)	Martin has over three years' experience in ecological field survey and consultancy. Martin is responsible for undertaking comprehensive habitat assessments, protected species surveys and is a licensed bat worker.	Bat surveyor
Kane Burchill	Senior Ecologist	Level 2 Certificate and Diploma in Work-based Environmental Conservation	Kane has over seven years' experience in ecological field survey and consultancy. As an Senior Ecologist with Ethos; Kane is responsible for leading	Ecological walkover

Ecologist	Position	Qualification/Licence	Experience	Role in Assessment
		ACIEEM Class 1 Bat Licence (NE) Class 1 Hazel Dormouse Licence (NE) Class 1 GCN Licence (NE)	and undertaking comprehensive habitat assessments protected species surveys and is a licenced bat and dormouse worker.	
Joe Bamforth	Ecologist	MSc, BSc (Hons) Class 1 Bat Licence (NE) Tree Climbing and Rescue, City and Guilds NPTC Level 2 Award (206 and 306)	Joe has over three years' experience in ecological consultancy and assists with habitat assessments, protected species surveys and data analysis.	UKHab, bat and riparian mammal surveyor
Ben Smurthwaite	Ecologist	MSc, BSc (Hons) Qualifying CIEEM Class 1 GCN Licence	Ben has over three years' experience in ecological field surveys and consultancy, and is responsible for managing projects, undertaking habitat and protected species surveys and biodiversity net gain assessments, and is a licensed GCN worker.	UKHab, bat and riparian mammal surveyor
Kate Downes	Assistant Ecologist	MSc, BSc (Hons)	Kate is an assistant ecologist at Ethos with a special interest and relevant field survey experience in ornithology. Kate assists with fieldwork and report-writing for habitats and protected species.	Bat surveyor
Katie Munday	Assistant Ecologist	MSc (predicted), BSc (Hons)	Katie has experience with a variety of ecological field surveys, including protected species surveys and habitat assessments, and is currently working towards an MSc in Environmental Consultancy.	Bat activity survey

4 BASELINE ECOLOGICAL CONDITIONS

4.1 Ecological Surveys on Nearby Sites

HDA 2020 Surveys

4.1.1 Ecological surveys were undertaken by HDA within the proposed development land at site A to the north of the site (Figure 2). Targeted surveys for badger, dormouse, riparian mammals, bats, birds and reptiles were undertaken during 2020.

Tyler Grange (2021) Surveys

4.1.2 A Phase 1 habitat survey and targeted surveys for bats, badger, riparian mammals, dormouse, reptiles and invertebrates were undertaken by Tyler Grange in 2021, on a site adjacent to the east of site B (Figure 2). The site is located adjacent to Hatherley Brook.

4.1.3 Results of the two nearby survey areas are detailed within the relevant protected species section below.

4.2 Designated Sites

4.2.1 There were no statutory or non-statutory designated sites within 1km of the site.

4.2.2 There are three sites of international importance within the zone of influence as shown at figure 5 and considered in the following sections.

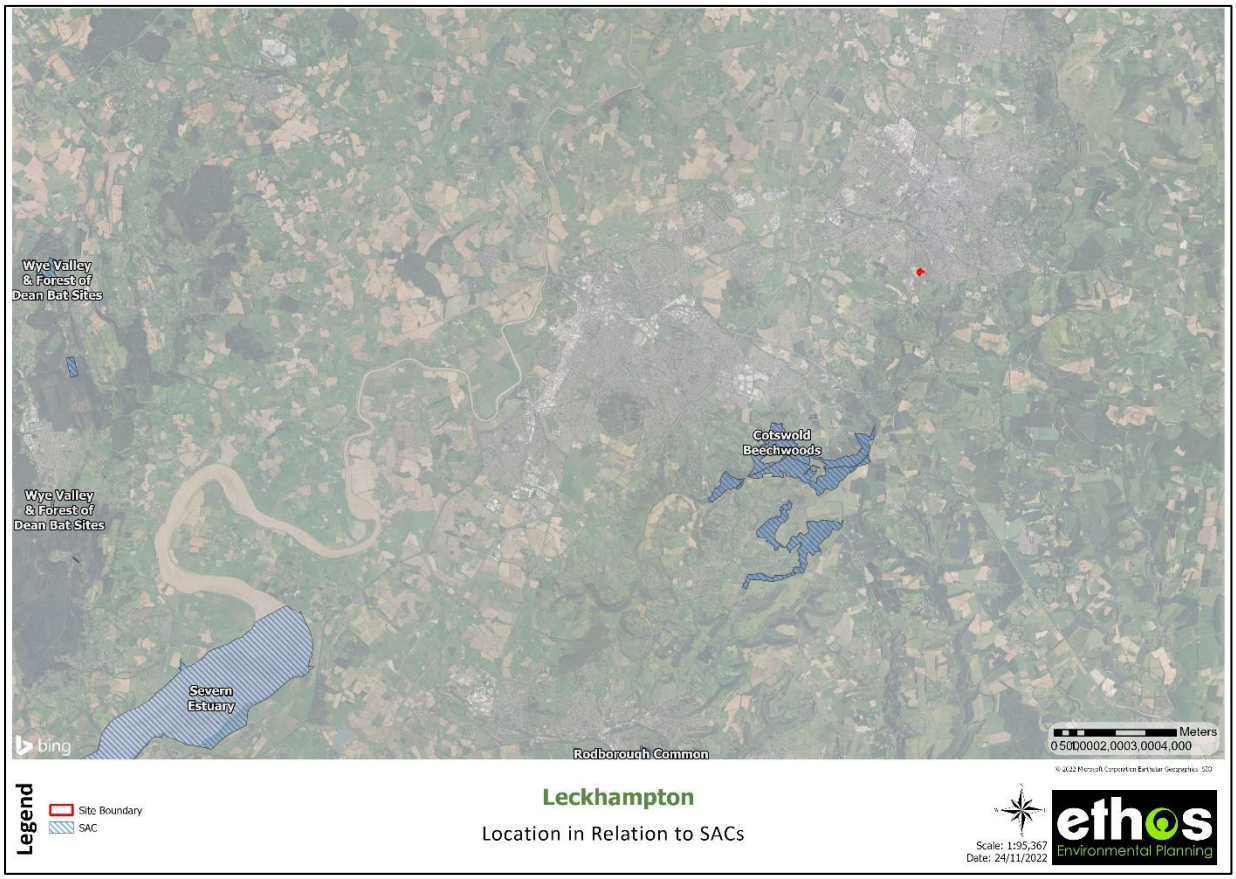


Figure 5 Location of the site in relation to SAC/SPA sites

Cotswold Beechwoods SAC

4.2.3 The site was located approximately 5.2km north-east of the Cotswold Beechwoods Special Area of Conservation (SAC), as shown in Figure 5. The site consists of ancient beech woodland and unimproved grassland lying over Jurassic limestones at the western edge of the Cotswolds. The woodlands are amongst the most diverse and species-rich of their type while the grasslands typify the unimproved calcareous pastures for which the area is famous.

The woods are structurally varied, including blocks of high forest and some areas of remnant beech coppice. The canopy is dominated by beech *Fagus sylvatica*, with ash *Fraxinus excelsior*, pedunculate oak *Quercus robur* and some areas of sycamore *Acer pseudoplatanus*. Characteristic understorey species include holly *Ilex aquifolium* and yew *Taxus baccata* but regenerating ash, sycamore and beech often accounts for much of the shrub layer. The field layer consists mainly of bramble *Rubus fruticosus* agg., dog's mercury *Mercurialis perennis* and ivy *Hedera helix*. Rare plants include red helleborine *Cephalanthera rubra*, stinking hellebore *Helleborus foetidus*, narrow-lipped helleborine *Epipactis leptochila* and wood barley *Hordelymus europaeus*. The fauna of the woods includes an exceptional variety of invertebrate species, including a rich mollusc fauna.

The unimproved limestone grassland swards are generally dominated by upright brome *Bromopsis erecta*, tor-grass *Brachypodium pinnatum* and sheep's-fescue *Festuca ovina*, with quaking grass *Briza media* and a wide range of other flowering herbs. Typical plants

include cowslips *Primula veris*, common bird's-foot-trefoil *Lotus corniculatus*, common rock-rose *Helianthemum nummularium*, wild thyme *Thymus praecox* and field scabious *Knautia arvensis.*

Qualifying habitats: The site is designated under Article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

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

4.2.4 The Cotswold Beechwoods is of **International importance** for nature conservation, which is reflected by its designation. Potential impacts on the Cotswold Beechwoods SAC have been identified as a result of increased residential pressure, which are detailed within the Site Improvement Plan (Natural England, 2015). As the proposed development will result in an increase in residential housing within the ZoI of the SAC, potential impacts on the Cotswold Beechwoods are considered further in this assessment.

Forest of Dean Bat SAC

4.2.5 The site was located 24.3km east of the Wye Valley and Forest of Dean Bat Site SAC at its closest point, as shown in Figure 5. The sites are areas of broadleaved deciduous woodland (26.2%) and other land (including towns, villages, roads, waste places, mines and industrial sites) (73.8%). The sites are designated under Article 4(4) of the Directive (92/43/EEC) as they host the following species listed in Annex II:

- 1303 Lesser horseshoe bat *Rhinolophus hipposideros* This complex of sites on the border between England and Wales contains by far the greatest concentration of lesser horseshoe bat Rhinolophus hipposideros in the UK, totalling about 26% of the national population. It has been selected on the grounds of the exceptional breeding population, and the majority of sites within the complex are maternity roosts. The bats are believed to hibernate in the many disused mines in the area.

- 1304 Greater horseshoe bat *Rhinolophus ferrumequinum* This complex of sites on the border between England and Wales represents greater horseshoe bat Rhinolophus ferrumequinum in the northern part of its range, with about 6% of the UK population. The site contains the main maternity roost for bats in this area, which are believed to hibernate in the many disused mines in the Forest.

4.2.6 The Forest of Dean Bats SAC is assessed to be of **International importance** for nature conservation, in line with its designation. Due to the distance between the proposed development site and the Forest of Dean Bat SAC, it is considered unlikely that horseshoe bats present on site would be associated with the SAC. Therefore, the Forest of Dean Bat SAC is not considered further in this assessment.

Severn Estuary

4.2.7 Whilst the Severn Estuary is over 23 km from the site, the Hatherley Brook which is immediately adjacent to the site is a tributary leading into the Severn. The site is a designated RAMSAR, SPA and SAC of **International importance.** The qualifying features of the SPA for birds are not considered to have any relevance to the site. The qualifying habitat features of the SAC are also considered irrelevant to the site, however, the migratory fish (Sea Lamprey, River Lamprey and Twite Shad) could be considered to be within the zone of influence. It is considered that measures to mitigate any impacts on the adjacent Hatherley Brook would ensure no likely significant effect on the Severn Estuary, these measures are set out within this assessment.

4.3 Habitats

General Site Description

4.3.1 The site comprised a field of other neutral grassland bordered by hedgerows on all but the north-eastern and southern boundaries. Hatherley Brook ran along the western boundary of the site and there were some derelict structures in the north of the site.

4.3.2 The site was located to the south-west of Leckhampton, a district of Cheltenham, and was bordered to the east and south by residential housing. Directly to the west of the site was an area of land that had recently been cleared for development.

4.3.3 The site was set in a mixed landscape comprising urban residential areas and arable and agricultural fields intersected by hedgerows and woodland copses. The A46 was located approximately 500m north-west of the site.

UKHab Classification Survey

4.3.4 Figure 6 below shows the mapped habitats using the UKHab classifications. The habitats present and respective habitat codes are:

- Grassland – other neutral grassland.
- Grassland – modified grassland.
- Urban – developed land; sealed surface.
- Rivers and Streams - Priority river.

Hedgerows described within this section are:

- Native hedgerow with trees – associated with bank or ditch.
- Native hedgerow with trees.
- Hedge ornamental non-native.
- Line of trees – associated with bank or ditch.
- Line of trees.

Figure 6 UK Habitat Classification Survey

Other neutral grassland

4.3.5 The field on site comprised other neutral grassland (Photo 1 and 2), which was grazed by horses at the time of the survey. A central section of the grassland and a small section to the north were fenced off with wooden and electric fencing for containing the livestock (Photo 3 and 4).

4.3.6 Species present included common field speedwell (*Veronica persica*), forget-me-not (*Myosotis arvensis*), false oat grass (*Arrhenatherum elatius*), herb robert (*Geranium robertianum*), field bindweed (*Convolvulus arvensis*), rosebay willowherb (*Chamaenerion angustifolium*), stonecrop (*Sedum anglicum*), horsetail (*Equisetum arvense*), common nettle (*Urtica dioica*) and Hart's tongue (*Asplenium scolopendrium*).

4.3.7 The grassland was assessed to be in poor condition due to the lack of varied sward heights and the presence of undesirable species such as common nettle. This habitat is not a Habitat of Principal Importance, is not therefore considered to have ecological importance and is only considered further in this assessment in relation to biodiversity enhancement along the proposed stream corridor buffer.

Photo 1 Grassland field

Photo 2 Grassland field

Modified grassland

4.3.8 There was a narrow verge of modified grassland running adjacent to Kidnappers Lane extending from the northern corner of the site. This grassland was species-poor and was assessed to be in poor condition. It is therefore considered that this habitat provides negligible potential for wildlife and is not considered further in this assessment.

Developed land; sealed surface

4.3.9 A track ran north-east to south-west into the centre of the site from Kidnappers Lane and there were several derelict buildings in the northern section of the site. These habitats were assessed to have negligible potential for biodiversity and are not considered further in this assessment.

Photo 3 Track on site

Photo 4 Building B5

Rivers and Streams – Priority River

4.3.10 The Hatherley Brook ran north-south along the western boundary of the site. At the time of survey, the brook held little water and was heavily overgrown with trees and scrub.

The UK BAP Priority Habitat Description for Rivers (JNCC, 2011) details the criteria required for a river or stream to be considered a Habitat of Principal Importance. One of the criteria relates to supporting BAP Priority Species or invertebrate species which are strongly indicative of river shingle. To qualify, the waterbody needs to have either:

- *'records of any **one species from criterion levels A** (**BAP priority species strongly dependent on river habitat quality**) or C (non-BAP priority species, indicative of shingle rivers), or*
- *from criterion level B (widespread BAP priority species which are less dependent on river habitat quality alone), records of six or more species.'*

There are records of white-clawed crayfish, a species listed on criterion level A and a Species of Principal Importance, from within the Hatherley Brook at a location approximately 500m from the site (See Section 5.13). Therefore, although the section of the Hatherley Brook on site contained poor quality white-clawed crayfish habitat, it is suitably connected to the location of the records. As already identified, the river is also linked (by a considerable distance) to the Severn Estuary. On this basis, it is therefore assessed to be of **County importance** for nature conservation.

Photo 5 Hatherley Brook

Photo 6 Hatherley Brook

Hedgerows and lines of trees

4.3.11 There were seven hedgerows on site, which are shown in Figure 6. Hedgerows H3, H4, H6 and H8 were assessed to be in moderate condition and Hedgerow 1 was assessed to be in good condition. Hedgerows H5 and H7 were ornamental non-native hedgerows with no particular ecological value.

Native hedgerows with trees – associated with bank or ditch (H3)

4.3.12 Hedgerow H3 ran along the south-western boundary of the site, adjacent to the brook. The hedgerow had a continuous canopy and showed no signs of excessive management, with the presence of undesirable perennial species, such as common nettles. Species present included elder, holly (*Ilex aquifolium*), hawthorn, ash, willow (*Salix* spp.), field maple and elm (*Ulmus procera*).

Photo 7 Hedgerow H3

Native hedgerow with trees (H6 and H1)

4.3.13 Hedgerow H1 was a defunct mixed hedgerow containing trees which was located on the eastern boundary of the site. The hedgerow comprised hawthorn, elder, cypress and holly. The hedgerow contained no invasive species and the ground directly in front of it was undisturbed, however there were undesirable perennial species present.

4.3.14 Hedgerow H6 ran along half of the northern boundary. It had a continuous canopy but was defunct and contained a large amount of undesirable species of perennial vegetation, specifically common nettles. Woody species present included field maple, ash, hawthorn, holly and blackthorn. There was also a section of privet (*Ligustrum sp.*) within the hedgerow.

Photo 8 Hedgerow H6

Photo 9 Hedgerow 1

Hedge ornamental non-native (H5 and H7)

4.3.15 Hedgerow H5 was located at the northern end of the western boundary and ran along the brook. It was species-poor, dominated by Leyland cypress (*Cupressus x leylandii*), but with two ash trees present within the hedgerow. Hedgerow H7 was located along the northern boundary and was also dominated by Leyland cypress.

Line of trees (H8)

4.3.16 Hedgerow H8 was located along the north-eastern boundary of the site. H8 did not contain any mature trees and the adjacent grassland was managed right to the base of the line of trees, but they were all in a healthy condition.

Line of trees – associated with bank or ditch (H4)

4.3.17 H4 was a line of native mature trees running adjacent to the brook along the western boundary. The canopy had some gaps and the ground adjacent to the line of trees was managed, but the trees were assessed to be in good health.

Photo 10 Line of Trees H4

4.3.18 Hedgerows are listed as a Habitat of Principal importance for the conservation of biodiversity in England. All hedgerows (with the exceptions of Hedgerows H5 and H7) are likely to be considered 'important' under the Hedgerows Regulations 1997, according to the Wildlife and Landscape criteria. Considering the connectivity of the hedgerows to slightly more valuable habitats, particularly those adjacent to the brook, and their potential for protected species, all hedgerows (excluding Hedgerows H5 and H7) are considered to be of '**Local' importance** for nature conservation.

4.4 NERC S. 41 Mammals

4.4.1 Over thirty records of hedgehog were returned by the data search. The majority of these records were located within the urban areas to the north-east and north-west of the site. No records of any other Section 41 mammals were returned by the data search.

4.4.2 No evidence of NERC S41 mammals was identified during the ecological surveys.

4.4.3 The site comprised an area of other neutral grassland with boundary hedgerows. Due to the cover opportunities provided by the hedgerows, the site was suitable to support commuting and foraging hedgehog. The site was also in proximity to several residential gardens, so it is considered likely that hedgehog are present on the site and using the hedgerows for commuting and foraging.

4.4.4 Brown hare favour areas of open farmland with patches of long grass to 'lay-up' during the day. The grassland on site was horse grazed and provided low potential for brown hare. The site was bordered by residential land and an area that had been cleared for future development which also provided low potential for brown hare, so it is unlikely that hare are commuting and foraging across the site. The species is therefore considered likely absent from the site and is not considered further in this assessment.

4.4.5 Polecat are found in many habitats including farmland and associated buildings, as well as riverine habitats. As there was a vegetated brook running along the western boundary of the site, with nearby farm buildings also present, there is potential for polecat to be present within the vicinity of the site.

4.4.6 The site was considered unsuitable for harvest mouse due to a lack of suitable habitat. The species is therefore considered likely absent from the site and is not considered further in this assessment.

4.4.7 Hedgehog and polecat are listed as Species of Principal Importance for the conservation of biodiversity in England. Any animals using the site are likely to form part of a wider population within the local area. Overall, the potential presence of hedgehog and polecat on site is assessed to be of **'Local' importance** for nature conservation and is considered further in this assessment in relation to precautionary mitigation during the construction period.

4.5 Badger

4.5.1 Two active and two inactive setts were identified on the land at site A (Figure 2) and foraging signs were also identified in this location along Hatherley Brook. No evidence of badger was identified on Land North of Church Road, Leckhampton (Tyler Grange, 2021). Both sites are connected to the proposed development site by Hatherley Brook.

4.5.2 The majority of the site comprised other neutral grassland, which would provide some suitable habitat for foraging and commuting badgers but was unlikely to support sett-building.

4.5.3 No setts or other evidence of badger was identified on site during the surveys. The boundary hedgerows and the Hatherley Brook corridor provide connectivity with the wider environment where active badger setts have been confirmed. It is therefore considered that badger may be using the site for foraging and commuting, but are unlikely to be present within setts.

4.5.4 Badgers are not a Species of Principal Importance and are only considered further in this assessment on a precautionary basis as they are a legally protected species under the Protection of Badgers Act 1992.

4.6 Hazel Dormouse

4.6.1 Four records of hazel dormouse were returned by the data search, all within 300m of the site and dated 2016 or 2019. The closest record was located in the land directly to the west of the site; however, this land had been recently cleared for development and is therefore now unsuitable for dormouse.

4.6.2 Surveys undertaken on land to the north of the site (HDA, 2020) and to the south of the site (Tyler Grange, 2021) identified no dormouse or evidence of dormouse presence. Dormouse were assessed to be likely absent from both sites.

4.6.3 The majority of the site comprised other neutral grassland which was unsuitable habitat to support dormouse. The hedgerows were largely unsuitable for dormouse as they were derelict and contained a limited range of species which are known to be important food resources for dormouse, such as hazel (*Corylus avellana*). Although some of the hedgerows contained bramble and hawthorn, these species in isolation are unlikely to support dormouse throughout the active season (April to October).

4.6.4 The site is assessed to hold low value for dormouse, with more valuable habitats in the local area such as areas of woodland to the south. Recently surveys of two nearby sites (HDA and Tyler Grange) did not identify dormouse in the area. Overall, dormouse are assessed to be likely absent from site and are not considered further in this assessment.

4.7 Otter

4.7.1 There were no records of otter within 1km of the site from the last 10 years, but there was one historic record of otter located approximately 500m south-west of the site. Surveys undertaken along Hatherley Brook to the north and south of the site (HDA and Tyler Grange) identified no evidence of otter and the habitat was assessed as largely unsuitable to support them.

4.7.2 Hatherley Brook ran along the western boundary of the site and was connected to various other watercourses in the wider area, such as Normans Brook and Ham Brook to the west of the site. The watercourses also connect to the Severn Estuary.

4.7.3 At the time of the surveys, Hatherley Brook contained little water and was stagnant and heavily overgrown in places. The area of land on the western side of the brook had also been recently cleared and a new hedgerow planted, so it was largely unsuitable to support otter.

4.7.4 No evidence of otter presence was identified during the surveys. Although no signs of otter were identified, they are a wide-ranging species, so it is possible they utilise the area for commuting activities.

4.7.5 Overall, it was considered that the site provides some potential transitory habitat for otters. Otter is a Species of Principal Importance in England and if a population were present, the linked watercourses extend across the wider landscape, therefore would be of **County importance** for nature conservation. Therefore, this species is considered further in the assessment on a precautionary basis.

4.8 Water Vole

4.8.1 There were no records of water vole within 1km of the site. Surveys undertaken along Hatherley Brook to the north and south of the site (HDA and Tyler Grange) identified no evidence of water vole and the habitat was assessed as unsuitable to support them.

4.8.2 Hatherley Brook ran along the western boundary of the site. At the time of the surveys, the brook contained little water and was heavily overgrown with limited bankside vegetation. The adjacent land to the west of the site was heavily disturbed which significantly reduces the suitability of the habitat for water vole.

4.8.3 No evidence of water vole presence was identified during the surveys.

4.8.4 Due to the lack of records of water vole, unsuitability of habitat and amount of disturbance on the land adjacent to the brook, it was assessed that water vole are likely absent from the site and are not considered further in this assessment.

4.9 Bats

Data Search

4.9.1 Approximately 70 records of bats within 1km of the site were returned by the data search. This included records of brown long-eared, common pipistrelle, soprano pipistrelle (*Pipistrellus pygmaeus*), Daubenton's (*Myotis daubentoniid*), greater horseshoe bat, lesser horseshoe bat, noctule and western barbastelle. Many of these records were located on the adjacent land to the west of the site, which was being developed at the time of survey.

4.9.2 Surveys undertaken on land to the north of the site (HDA 2020) identified four transient roosts and nine species of bat utilising the site for foraging and commuting, including low numbers of lesser horseshoe, barbastelle and brown long-eared bats. Low numbers of common pipistrelle were identified in one building on site and three trees supporting bat roosts were also identified, although the species of bat utilising the roosts could not be determined.

4.9.3 Targeted bat surveys by Tyler Grange (2021) on land to the south of the site concluded low numbers of commuting and foraging common pipistrelle and noctule, with *Myotis* species, serotine, soprano pipistrelle, brown long-eared bat, greater and lesser horseshoe bat also present commuting over site. One barbastelle bat was also recorded commuting and the site was assessed to contain local ecological importance for bats.

Habitats

4.9.4 The site was dominated by other neutral grassland with hedgerows. The grassland has low value for commuting and foraging bats and the hedgerows were assessed as having moderate potential for commuting and foraging bats. The adjacent brook was assessed as the most valuable feature for bats on site, connecting the site to suitable bat habitat across the wider environment. Overall, the site was assessed as having 'low value' for bats.

4.9.5 Land adjacent to the west of the site, adjacent to the Hatherley Brook, had recently been cleared for development at the time of survey. The lack of a buffer along the stretch of the Hatherley Brook in this location is likely to have reduced the suitability of this habitat for commuting/ foraging bats.

Roosting Bats

4.9.6 There were four derelict nursery structures in the northern corner of the site and one adjacent to the southern boundary of the site. Structures comprised sheds/ stables in use (Photo 13, 14 and 16) and a caravan (Photo 15). The farm structures were open and exposed, providing no suitable roost habitat for bats. The caravan did not have any potential access points or crevices suitable for roosting bats. All of the structures were assessed to provide '**negligible' potential** for roosting bats.

4.9.7 No trees with features suitable for roosting bats were identified during the ecological surveys.

Photo 13 Farm structure on site

Photo 14 Farm structure on site

Photo 15 Caravan structure on site

Photo 16 Farm structure on site

Activity Transect Surveys

4.9.8 The results of the bat activity surveys are provided in Appendix 1.

4.9.9 Five species of bat were recorded during the activity surveys, namely common pipistrelle, noctule, Natterer's, Daubenton's bat and unidentified species of Myotis.

4.9.10 Activity was assessed to be low to moderate on the site and was focused along the site boundaries. The northern boundary of the site and vegetated boundary to the south of the proposed development site contained the highest levels of activity, which were mainly attributed to commuting bats utilising the hedgerows.

4.9.11 Several bats were also observed commuting along the Hatherley Brook, comprising Daubenton's bat, Natterer's bat, common pipistrelle and unidentified *Myotis* bat species.

Static Detector Surveys

4.9.12 The results of the static detector surveys are provided in Appendix 1.

4.9.13 Thirteen species of bat were recorded by the static detectors, namely common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, serotine, Leisler's bat, brown long-eared, lesser horseshoe bat, greater horseshoe bat, Daubenton's bat, whiskered/Brandt's bat and barbastelle (refer to Appendix 1). Activity was assessed to be moderate across the site and activity levels were similar across the western and northern hedgerows, where the static detectors had been deployed.

4.9.14 Common pipistrelle were the most frequently recorded species, comprising 64% of all recordings. Lesser horseshoe bat was the second most frequently recorded species, comprising 8.5% of all recordings (Appendix 1 Figure 9 and 10). Two recordings of greater horseshoe bat were identified at location 1 during the August survey period, with no other greater horseshoe bats recorded across the survey period (Appendix 1 Figure 16).

4.9.15 During the August survey period, lesser horseshoe bat calls made up 23% of all calls recorded along the northern boundary of the site. During the same survey period, Daubenton's bat calls made up 23% of all calls recorded along the western boundary of the site, adjacent to Hatherley Brook (Appendix 1 Figure 12).

4.9.16 When comparing the percentage of lesser horseshoe calls across locations, significantly more lesser horseshoe bat calls were recorded at location 2 along the northern boundary of the site (340 calls, 7.5% of total calls) than at location 1 along the Hatherley Brook (44 calls, 0.9% of total calls), as shown in Appendix 1 Figure 16. The main period of activity was during the August survey period (353 calls) in comparison to July (5 calls) and September (26 calls) (Appendix 1 Figure 17).

4.9.17 Calls relating to barbastelle comprised 0.9% of total registrations, with all calls recorded during the August survey period. The majority of calls were recorded at location 1 along Hatherley Brook (Appendix 1 Figure 16 and 17).

4.9.18 Calls attributing to Myotis species made up 15.5% of total registrations, comprising 6.7% Daubenton's bat, 3.4% Brandt's bat, 1.5% natterer's bat, 3.6% whiskered bat and 0.3% unidentified Myotis species (Appendix 1 Figure 10). The majority of calls were recorded at location 2 along the north west corner of the site and were recorded during the August survey period (Appendix 1 Figure 14).

Summary and assessment of nature conservation importance

4.9.19 Overall, bat activity at the site was assessed to be moderate, with key activity areas along the north western corner of the site and along the Hatherley Brook, with some bats commuting across the centre of the site. The concentration of activity along the boundaries is likely due to the suitability of these habitats as foraging and commuting routes.

Lesser horseshoe bats

4.9.20 The static detector surveys identified the presence of lesser horseshoe bats on site. Bats were not observed foraging on site and overall, the site was assessed to not contain any particular value for foraging lesser horseshoe bats.

4.9.21 The north western corner of the site and western boundary adjacent to the Hatherley Brook were assessed to be commuting resources for lesser horseshoe bats. The survey results indicate that lesser horseshoe bats utilise these areas of the site regularly for commuting, as they were recorded across the survey period. Calls attributed to lesser horseshoe bats made up a notable percentage of total calls and the species was the second most frequently recorded, after common pipistrelle. Therefore, the identified features for commuting lesser horseshoe bats are assessed to be of **Local importance** for nature conservation.

Myotis bats

4.9.22 Several Myotis species were recorded foraging along the Hatherley Brook corridor during activity transect surveys, namely Daubenton's bat, Natterer's bat and unidentified Myotis species. The static detector surveys recorded whiskered bat, natterer's bat, Daubenton's bat, Brandt's bat and unidentified Myotis species in this location. The Hatherley Brook is therefore assessed to be an important foraging resource for Myotis species.

4.9.23 The north western corner of the site and western boundary adjacent to the Hatherley Brook were assessed to be commuting resources for Myotis species, particularly Daubenton's bat, whiskered bat and Brandt's bat. Overall, the identified features for commuting and foraging Myotis species are assessed to be of **Local importance** for nature conservation.

Other bat species

4.9.24 Given the geographic location of the site, the habitats present, and the bat survey results, it is considered unlikely that the site is a particularly important foraging resource for bats. The hedgerows boundaries are used by commuting bats, mainly common pipistrelle bats (accounting for 64% of records on the static detectors).

4.9.25 The assemblage of other bat species present on site is not assessed to be particularly important for nature conservation and is only discussed further in this assessment in relation to precautionary mitigation during and post-construction.

4.10 Birds

Data Search

4.10.1 Over five hundred bird records were returned by the data search. This included records of several birds on the amber and red lists of Birds of Conservation Concern such as sparrowhawk (*Accipiter nisus*), kestrel (*Falco tinnunculus*), willow warbler (*Phylloscopus trochilus*), dunnock (*Prunella modularis*) and fieldfare (*Turdus pilaris*).

4.10.2 Breeding bird surveys undertaken at the land at site A (HDA, 2020) identified forty-seven species of bird, of which thirty-three were considered to be breeding on site or within the wider area. The species recorded were generally common and widespread, with thirteen occurring on the RSPB Birds of Conservation Concern Red or Amber Lists or the list of Species of Principal Importance under Section 41 of the 2006 NERC Act, namely bullfinch, dunnock, house martin, house sparrow, kestrel, linnet, mallard, song thrush, starling, stock dove, swift, tawny owl and willow warbler.

Habitat Assessment

4.10.3 The majority of the site comprised other neutral grassland which would be unsuitable for ground-nesting birds due to a lack of cover but would provide some suitable foraging habitat for birds. The hedgerows would also provide suitable nesting and foraging habitat for woodland birds. The Hatherley Brook corridor was assessed to be the most valuable habitat for birds on site.

4.10.4 Overall, it is considered that the likely assemblage of birds present is not of importance for nature conservation. Birds are only considered further in this assessment in relation to precautionary mitigation required during construction.

4.11 Reptiles

4.11.1 The data search identified records of slow worm (*Anguis fragilis*), grass snake (*Natrix helvetica*) and adder (*Vipera berus*) within 1km of the proposed development site. One record of grass snake was dated 2019 and located off Farm Lane, on the far side of Hatherley Brook and beyond the area of land currently undergoing construction.

4.11.2 The land at site A to the north of the site (HDA, 2020) (Figure 2) supported an 'exceptional' population of slow worm with the key features being the rough grassland, scrub, woodland, hedgerows and abandoned allotment plots. Targeted surveys at Land North of Church Road, Leckhampton (Tyler Grange, 2021) concluded a low population of common lizard on site (max count 1).

4.11.3 The other neutral grassland field was heavily grazed and so did not provide suitable cover habitat for reptiles. Riverine habitats often support species such as grass snake, however, the western bank of Hatherley Brook had been heavily disturbed and did not contain sufficient refugia opportunities for reptiles. Although an 'exceptional' population of slow worm was recorded in proximity to the site (HDA, 2020), most of the key features identified for reptiles were not present on the site and the habitats were assessed as providing poor suitability for reptiles. Therefore, reptiles are considered likely absent from the site and are not considered further in this assessment.

4.12 Amphibians

4.12.1 Five records of amphibians within 1km of the site were returned by the data search; four for common toad (*Bufo bufo*) and one for common frog (*Rana temporaria*). Three of these records were located on the adjacent land to the west of the site.

4.12.2 Targeted GCN surveys carried out on land to the north of the site (HDA, 2020) indicated that it was highly unlikely that GCN were present.

4.12.3 There were no waterbodies on site with the potential to support GCN and other amphibians. The adjacent Hatherley Brook was partially dry at the time of survey and would contain shallow flowing water in periods of rainfall. The terrestrial habitat was assessed as being of low value for GCN as the grassland was heavily grazed and the land to the west of the brook was disturbed. The hedgerows would provide some potential habitat to support amphibians dispersing through the wider landscape.

4.12.4 The desk-based assessment identified no ponds within 500m of the site, as shown in Figure 7.

4.12.5 Due to the amount of disturbance on the land adjacent to the brook, and the lack of suitable waterbodies within the local area, it was assessed that GCN and other amphibians are likely absent from the site and are not considered further in this assessment.

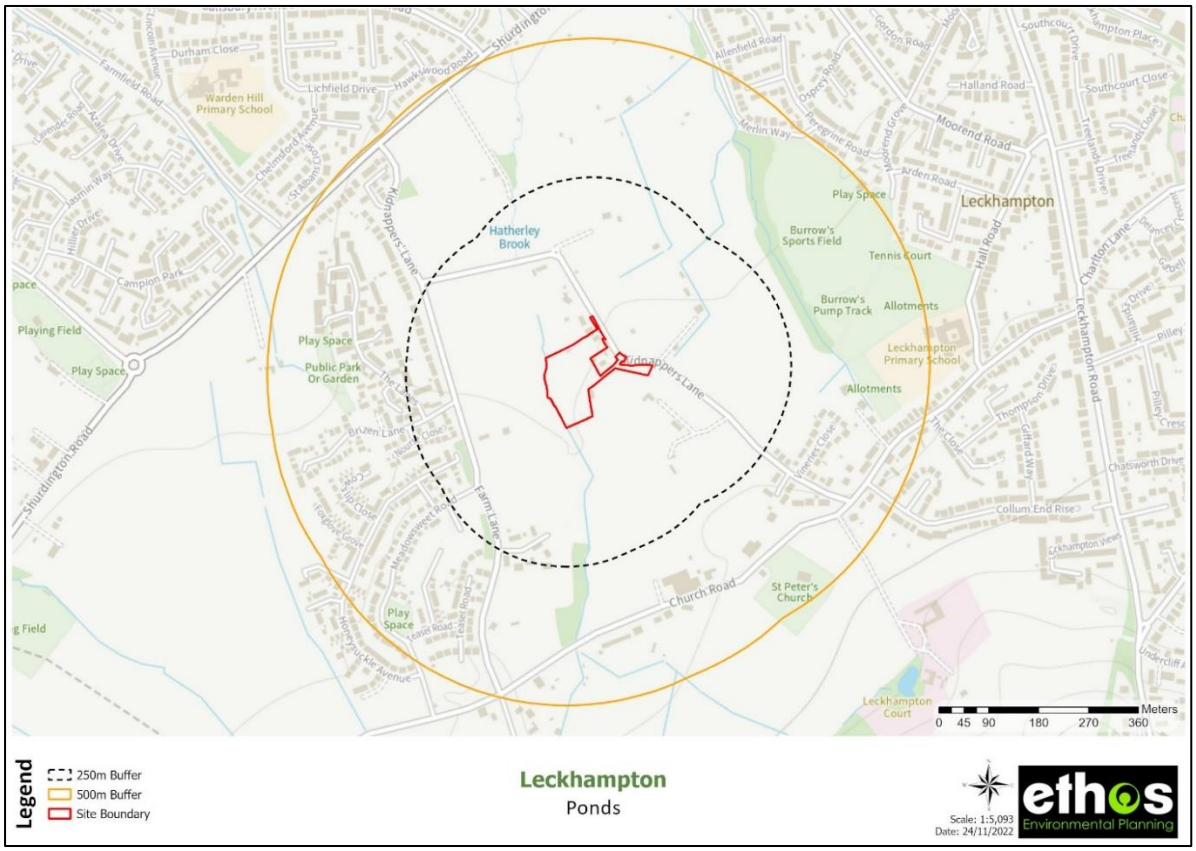


Figure 7 Ponds within 500m

4.13 Invertebrates

4.13.1 One record of white-clawed crayfish (*Austropotamobius pallipes*) was returned by the data search. This record was located along Hatherley Brook, approximately 500m north of the site.

4.13.2 Three key invertebrate species were identified on the site to the east of location B (Tyler Grange, 2021), namely rove beetle *Aleochara kamila*, darkling beetle *Prionychus ater* and brown tree ant *Lasius brunneus*, which were associated with damp heart-rot at the base of broadleaved trees.

4.13.3 White-clawed crayfish typically live in rivers or streams that are approximately 1m deep with submerged rocks and pebbles that they use for cover. At the time of the surveys, Hatherley Brook contained little water and had become stagnant. There were also no submerged rocks to provide cover opportunities. The area of the brook adjacent to the site was therefore assessed to provide very poor suitability for white-clawed crayfish, and they are only considered further in this assessment in relation to precautionary mitigation during construction (i.e. they have not been assigned a nature conservation value).

4.13.4 Ten records of other invertebrates were returned by the data search, including one record of small heath (*Coenonympha pamphilus*) which is a priority species in the UK.

4.13.5 The site contained common and widespread habitats including other neutral grassland and boundary hedgerows. The boundary hedgerows and adjacent brook were assessed as the most valuable habitat for invertebrates. The other neutral grassland was considered to hold low ecological value due to the level of grazing and was assessed as unlikely to support rare or notable invertebrate species.

4.13.6 The site's assemblage of invertebrates is not considered likely to be of particular nature conservation importance and therefore will not be considered further in this assessment.

4.14 Invasive Species

4.14.1 No invasive species were identified during the site visits, and it was assessed that invasive species were likely absent from the site.

4.15 Summary

4.15.1 The important ecological features of relevance to this assessment and their importance are summarised in Table 2.

Table 2 Summary of important ecological features

Important ecological features	**Scale of Importance**
Cotswold Beechwoods SAC	International
Otter	County
Priority River – Hatherley Brook	County
Hedgerows (excluding H5 and H7)	Local
NERC S41 species hedgehog and polecat	Local
Bats: commuting lesser horseshoe bats	Local
Bats: commuting and foraging Myotis bats	Local
Badger	N/a – legal protection only
Birds	N/a – legal protection only
White Clawed Crayfish	Precautionary

5 DESCRIPTION OF THE PROPOSED DEVELOPMENT

5.1 The development proposals comprise the construction of thirteen zero carbon residential dwellings with associated access and green space, as shown in Figure 8.

5.2 The layout of the development has been developed to minimise impacts on site ecology as follows:

- Retention and enhancement of the boundary hedgerows.
- Creation of an attenuation pond in the southern section of the site to increase the value of the site for species such as invertebrates and in turn, foraging bats and birds.
- Implementation of a 3-metre buffer along the Hatherley Brook corridor, which is to be located outside of residential ownership and will therefore be managed by a designated management company. The ecological buffer zone will be planted with suitable native species to protect the adjacent hedgerows and Hatherley Brook from the development.
- Tree and shrub planting within the street scene.
- Creation of an area of tree planting along Kidnappers Lane in the west of the site.

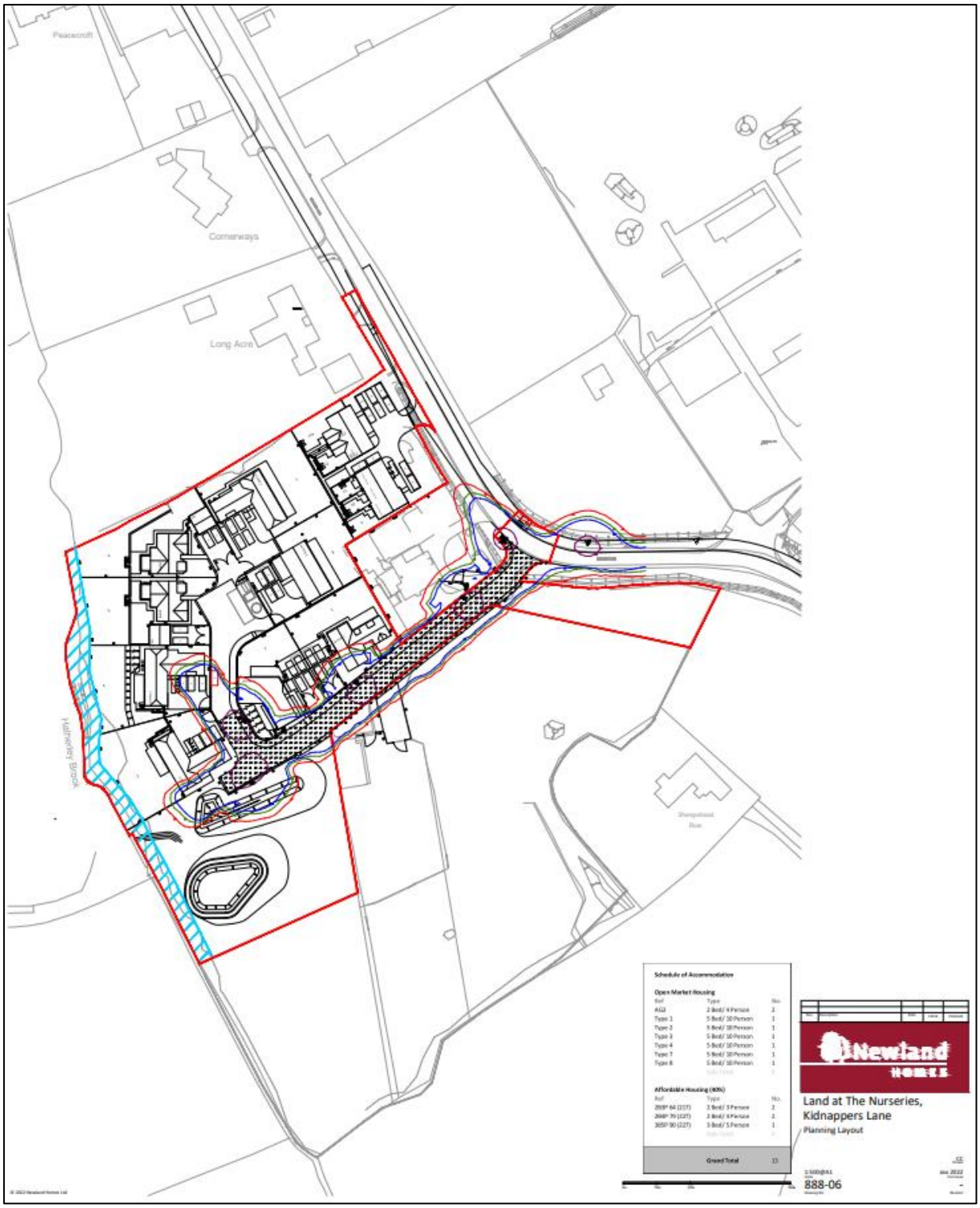


Figure 8 Planning layout (Drawing Number 888-06)

6 ASSESSMENT OF IMPACTS AND MITIGATION MEASURES

6.1 Designated Sites

Cotswold Beechwoods SAC

6.1.1 In line with Policy BG1 of the Cheltenham Plan, '*in order to retain the integrity of the Cotswold Beechwoods Special Area of Conservation (SAC) all development within the borough that leads to a net increase in dwellings will be required to mitigate any adverse effects'*. Likely significant impacts on the SAC have been identified due to increased recreational pressure from developments within 15.4km of the site (Footprint Ecology, 2021).

6.1.2 As the development comprises the construction of 13 new residential properties, there may be a minor impact on the SAC as a result of increased residential pressure. To compensate for residential pressure impacts on the SAC, a financial contribution to Natural England secured through s106 agreement is suggested to support the management of the SAC, in line with Policy BG1. With the implementation of this compensation payment, **no significant impacts** are predicted on the SAC as a result of the development.

6.1.3 The compensation measures to be provided are considered sufficient to allow the Local Planning Authority to undertake an Appropriate Assessment for the proposed development, which will assess the potential of the site to affect the integrity of the Cotswold Beechwoods SAC.

6.2 Habitats

Priority River - Hatherley Brook

6.2.1 The Hatherley Brook is to be retained and buffered as part of the development proposals. The following sections assess the potential impacts of the development on the brook during the construction and operational phases of the project.

Construction impacts

6.2.2 In the absence of mitigation, potential impacts on the watercourse could arise as a result of pollution during the construction period, for example from water runoff or dust deposition, which could impact water quality. This would be a short-term impact on the brook, during the construction period.

6.2.3 Standard pollution prevention controls will be required during construction to avoid potential impacts on the Brook. The 3-metre buffer will also require protection during the construction period and should be protected through the use of hoarding or other suitable barrier fencing. These measures can be detailed within a Construction Environment Management Plan (CEMP), which can be secured through a suitably worded planning condition.

Operational impacts

6.2.4 To avoid impacts on the adjacent Hatherley Brook, a buffer will be required along the river edge. The buffer will need to be located within the public realm and subsequently managed by a designated management company, details of which can be set out within a LEMP, which can be secured by planning condition.

6.2.5 There are also potential impacts from lighting onto the river corridor from lighting from the proposed development. A lighting plan has been produced (Appendix 2) which demonstrates that the retained boundary features, Hatherley Brook and associated 3-metre ecologically sensitive buffer will not be subject to increased lighting levels as a result of the development. This demonstrates that lux levels at the edge of the 3m buffer can be maintained at <0.5 lux.

6.2.6 It is considered that there will be **no significant effect** on the Hatherley Brook during the construction and operational phases of the project.

Hedgerows

6.2.7 All hedgerows on site will be retained as part of the development. The 3-metre buffer along the Hatherley Brook (Hedgerow H3-5) will be planted with suitable native species, which will buffer these hedgerows from development activities. The following sections assess the potential impacts of the development on the hedgerows during the construction and operational phases of the project.

Construction impacts

6.2.8 Mitigation measures will be required during construction to avoid short-term impacts to hedgerows H3-8, including sensitive construction lighting and tree protection fencing, to ensure root protection zones are safeguarded, details of which will be set out within the CEMP.

Operational impacts

6.2.9 Hedgerows H4, H6 and H8 are native hedgerows which will be located adjacent to the residential development. In the absence of mitigation, potential impacts to hedgerows H4, H6 and H8 could occur through new residential pressure (e.g. removal, damage and fly tipping). Hedgerows adjacent to residential gardens will need to be protected from potential impacts through the use of suitable fencing and, where possible, located within the public realm, and therefore able to be suitably managed by a management company. Details of this will need to be shown on a final landscape plan which can be secured by planning condtion, and management regimes set out within the LEMP.

6.2.10 Overall, with suitable mitigation implemented for the protection of hedgerows and suitable management and maintenance of existing hedgerows, the proposed development is considered likely to have **no significant effects** on hedgerows on site.

6.3 Hedgehog and Polecat

Construction impacts

6.3.1 The site has the potential to support hedgehog and in the absence of mitigation, impacts on hedgehog could occur during site clearance, comprising injury or mortality of hedgehog foraging over site. Good practice measures to avoid impacts on hedgehog comprise appropriate storage of materials to avoid creating refugia, protection of retained hedgehog habitat (hedgerows and woodland) and a sensitive construction lighting plan. These measures will be set out within the CEMP.

6.3.2 The site was assessed as potentially suitable for supporting polecat, which utilise areas of farmland and associated buildings, as well as riverine habitats. The brook corridor will be protected during construction and therefore, no significant effects on polecat are predicted during the construction period.

Operational impacts

6.3.3 Given the retention of the site's boundary features (hedgerows and brook corridor), the proposed development would not be expected to have a significant adverse effect on hedgehogs. To ensure the site remains permeable to hedgehog post-construction, non-permeable fencing (e.g. close-boarded fencing between residential gardens) will contain suitable holes at the base to ensure hedgehog can continue to commute and forage across the site.

6.3.4 Overall, with the implementation of suitable mitigation during and post-construction, **no significant effects** on hedgehog or polecat are predicted as a result of the development.

6.4 Badger

6.4.1 The site was assessed as potentially suitable habitat for foraging and commuting badger. Potential impacts on badger could occur during the construction phase of the development, for example through injury/ mortality or disturbance due to an increase in artificial lighting. The method statement for ensuring the protection of badger during the construction period will be detailed within the CEMP, to be secured by a planning condition.

6.4.2 Overall, with the implementation of suitable mitigation during construction, **no significant impacts** on badger are predicted as a result of the development.

6.5 Otter

6.5.1 Although no evidence of otter was identified during the surveys, the brook corridor adjacent to the site boundary was assessed to be suitable to support the species, which may utilise the brook for foraging and commuting.

Construction impacts

6.5.2 During the construction period, impacts on otter potentially present within the brook will be avoided through the installation of the 3-metre exclusion zone, which is to be located outside of construction activities. The implementation of this buffer zone, alongside sensitive construction lighting to avoid subjecting the brook corridor to increased lighting levels, will avoid impacts on otter during construction. The proposals also do not include any activities which could potentially impact or hinder otter using this section of the brook. Measures to protect the Hatherley Brook corridor (Section 6.2.3) will also safeguard otter during construction.

Operational impacts

6.5.3 The proposals include enhancement of the brook via additional tree planting along the boundary and enhancement of the grassland within the 3-metre ecologically sensitive buffer zone adjacent to the Hatherley Brook. This enhancement of the foraging and commuting habitats present on site will increase the value of the site for otter.

6.5.4 A lighting plan has been produced (Appendix 2) which demonstrates a dark corridor can be maintained along the Hatherley Brook, which will allow otter to continue commuting along the brook post-construction.

6.5.5 Overall, it is considered that there will be **no significant effect** on otter as a result of the development.

6.6 Bats

Lesser horseshoe bats

6.6.1 Lesser horseshoe bats were assessed to be not roosting on site and the site was assessed as not important for foraging lesser horseshoe bats. Potential impacts on commuting lesser horseshoe bats during the construction and operational phases of the project have been assessed below.

Construction impacts

6.6.2 As the northern and western boundary hedgerows are to be retained as part of the proposals, no direct impacts on lesser horseshoe bats as a result of hedgerow/ tree removal are considered likely as a result of the development.

6.6.3 Potential impacts on commuting lesser horseshoe bats could occur as a result of insensitive construction lighting, which could disturb light-sensitive horseshoe bats. Sensitive construction lighting will be required during construction, which can be set out within the CEMP.

Operational impacts

6.6.4 Land adjacent to the west of the site has recently been subject to development, which has reduced the amount of commuting habitat available to lesser horseshoe bats on the western side of the Hatherley Brook. Therefore, it is considered particularly important to retain the eastern side of the Hatherley Brook corridor, to ensure that lesser horseshoe bats can continue to utilise this feature for commuting purposes.

6.6.5 In the absence of mitigation, potential impacts on commuting horseshoe bats could arise as a result of increased residential pressure (e.g. removal of suitable commuting habitat). To avoid these potential impacts, the hedgerows will be located outside of private ownership and will therefore be managed and maintained by a management company, which will ensure the hedgerows remain suitable for commuting lesser horseshoe bats. The LEMP will provide details on how the hedgerows will be managed, including targets for achieving optimal habitat for commuting bats.

6.6.6 A lighting plan has been produced (Appendix 2) to demonstrate that the retained boundary features, Hatherley Brook and associated 3-metre ecologically sensitive buffer will not be subject to increased lighting levels as a result of the development. With the implementation of a dark corridor along the western and northern boundaries, lesser horseshoe bats will be able to continue utilising these habitats for commuting purposes post-construction.

6.6.7 It is considered that there will be **no significant effect** on lesser horseshoe bats during the construction and operational phase of the project.

Myotis bats

Construction impacts

6.6.8 Potential impacts on commuting and foraging Myotis species could occur as a result of insensitive construction lighting, which could disturb light-sensitive bats. Sensitive construction lighting will be required during construction, which can be set out within the CEMP.

Operational impacts

6.6.9 The northern and western boundaries of the site were assessed to provide important commuting habitat for Myotis bats, with the Hatherley Brook corridor also an important foraging resource for Myotis bats. The 3-metre ecologically sensitive buffer zone along the Hatherley Brook will be located outside of private residential ownership and will therefore be managed by a designated management company. Targets for the creation and management of the habitats within the buffer zone will be set out within the LEMP.

6.6.10 Development proposals include the creation of a sustainable drainage feature in the south of the site, which will provide new areas of wetland habitat suitable for foraging Myotis bats, particularly Daubenton's bats which are associated with water.

6.6.11 As detailed in Section 6.6.6, a sensitive lighting plan has been produced (Appendix 2) to demonstrate the northern and western boundaries of the site are not subject to increased lighting levels as a result of the development, to maintain a dark corridor suitable for foraging/ commuting bats.

6.6.12 Overall, it is considered that there will be **no significant effect** on Myotis bats during the construction and operational phases of the project.

6.7 Birds

6.7.1 The hedgerows were assessed as likely to support common and widespread species of bird. As the hedgerows are to be retained, there are no significant impacts predicted as a result of the development.

6.7.2 Nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), so it will be necessary to avoid damage or destruction of nests, or disturbance of nesting birds, during the construction phase.

6.7.3 The method statement for ensuring the protection of nesting birds will be detailed within the CEMP, to be secured by a planning condition. Overall, **no significant effects** are predicted on birds as a result of the development.

6.8 White Clawed Crayfish

6.8.1 Although it was assessed that the section of the Hatherley Brook adjacent to the site was unsuitable for white clawed crayfish, as they are present within other sections of the brook, it is considered necessary to avoid impacts during the construction and operational phases.

Construction impacts

6.8.2 During the construction period, impacts on crayfish potentially present within the brook will be avoided through the installation of the 3-metre exclusion zone, which is to be located outside of construction activities, which will avoid impacts during construction.

Operational impacts

6.8.3 The proposals include enhancement of the brook via additional tree planting along the boundary and enhancement of the grassland within the 3-metre ecologically sensitive buffer zone adjacent to the Hatherley Brook, which has the potential to improve the brook for this species.

6.9 Summary

6.9.1 A summary of the predicted significance of any effects, as well as the proposed mitigation/compensation measures and how these may be secured are outlined in Table 3.

Table 3 Summary of significance of effects and mitigation/compensation

Ecological Feature	Mitigation/Compensation	Mechanism for securing delivery	Residual effects
Cotswold Beechwoods SAC	• Financial contribution secured through S106 agreement.	S106	None
Hatherley Brook	• Pollution prevention controls during construction and protection of sensitive buffer zone. • 3-metre buffer to be located outside of residential ownership and managed by a designated management company.	CEMP secured by condition LEMP secured by condition Lighting plan produced	None
Hedgerows	• Provision of protective tree fencing. • Provision of ecological buffers. • Provision of post-construction mitigation to avoid residential impacts.	Detailed landscape plan CEMP secured by condition	None

Ecological Feature	Mitigation/Compensation	Mechanism for securing delivery	Residual effects
		LEMP secured by condition	
Hedgehog and polecat	• Precautionary construction measures. • Measures to ensure site remains permeable post-construction.	CEMP secured by condition LEMP secured by condition	None
Badger	• Precautionary construction measures.	CEMP secured by condition	None
Otter	• Precautionary construction measures. • Provision of ecological buffers. • Lighting plan to avoid construction and post-construction impacts	CEMP secured by condition Lighting plan produced	None
Bats: Commuting lesser horseshoe bats Commuting/ foraging Myotis bats	• Sensitive lighting design along western and northern boundaries of development area. • 3-metre ecologically sensitive buffer zone along brook corridor. • Creation of sustainable drainage feature in the south of the site.	Lighting plan produced LEMP secured by condition CEMP secured by condition	None
Birds	• Precautionary construction measures.	CEMP secured by condition	None
White Clawed Crayfish	• Precautionary construction measures. • Provision of ecological buffers.	CEMP secured by condition	None

6.10 Cumulative Effects

Cotswold Beechwoods SAC

6.10.1 Cumulative impacts of developments within the Zone of Influence of the Cotswold Beechwoods SAC have been identified as a result of increased residential pressure. Whilst there will be a cumulative effect of increased residential pressure overall, developments within the ZoI will need to implement site-specific mitigation/ compensation measures to reduce impacts as required, so that the cumulative impact is reduced/minimised as much as possible. Alternatively, developments will need to provide a financial contribution secured through s106 agreement to support the management of Cotswold Beechwoods.

Bats and the Hatherley Brook Corridor

6.10.2 The site is in proximity to several other areas of land proposed for development (Figure 2), one of which is proposed for development of 350 residential dwellings and is connected to the site via the Hatherley Brook ecological corridor. An additional area of land is proposed for development to the south of the site (Figure 2 – adjacent to area B) (Tyler Grange, 2021), which is also connected to the site via the Hatherley Brook. In addition, recent development on the site adjacent to the west has involved the removal of vegetation along the western bank of the brook, which is likely to have impacted the function of the brook corridor as suitable for commuting and foraging bats.

6.10.3 Potential cumulative impacts on bats and the Hatherley Brook could occur if habitats along the brook corridor are not protected during and post-construction, as detailed below.

Construction impacts

6.10.4 Developments along the brook corridor (detailed above) will need to ensure the Hatherley Brook is not subject to increased lighting levels during the construction period and is also protected from potential construction pollution, such as short-term damage to the water quality. Each individual development with the potential to impact the brook will require measures to be set out to mitigate impacts during construction.

Operational impacts

6.10.5 Given the proposed development to the north of the site and the removal of vegetation to the west of the site, the 3-metre ecologically sensitive buffer will be required along the brook to maintain its value as an ecological corridor. The eastern bank of the brook will also need to be enhanced via infill planting.

6.10.6 The retention of the corridor as a dark corridor below 0.5 lux is also required in order to demonstrate no cumulative effects. A lighting plan has been produced (Appendix 2) which demonstrates the retention of this buffer as a dark corridor.

6.10.7 Without these measures, the cumulative impacts on foraging and commuting bats could be negative and permanent, as they would result in an overall reduction in suitable commuting and foraging habitat.

7 ENHANCEMENTS

7.1 Habitats

7.1.1 The baseline habitats on site were dominated by other neutral grassland, which is a medium distinctiveness habitat, and boundary hedgerows. Whilst the majority of the other neutral grassland requires removal for the development, grassland within the ecologically sensitive 3-metre buffer to the Hatherley Brook and grassland in the south of the site adjacent to the sustainable drainage feature can be enhanced through sowing a suitable species-rich wet meadow mixture and suitable management.

7.1.2 The sustainable drainage feature proposed in the south of the site can be enhanced for biodiversity through the wildflower and native shrub planting around the wet basin, which will provide suitable habitat for invertebrates and in turn, species such as foraging bats and birds.

7.1.3 The provision of additional green infrastructure in the form of residential gardens, tree planting and open space provides opportunity for ecological enhancement.

7.2 Protected Species

7.2.1 In addition to the measures required for mitigation and compensation, the scheme will deliver several additional gains for biodiversity, including:

- Five integrated bat bricks on new residential properties and five bat boxes on retained mature trees within the hedgerows on site.
- Ten integrated swift boxes on new residential properties.
- Five bee bricks on new residential properties and an insect hotel within the southern area of open space, adjacent to the sustainable drainage feature.

7.2.2 The measures detailed above can be set out within the LEMP, secured through planning condition.

8 MONITORING

8.1 The mitigation measures set out in Section 6 which will be supervised by an Ecological Clerk of Works (ECoW) will be recorded as a 'site note' by the ECoW, and if required made available to the Local Planning Authority (LPA).

8.2 The provision of the ecological enhancements as set out in Section 7 will be subject to an ecological compliance report undertaken by the ECoW, which will also be made available to the LPA if required.

8.3 The habitat on site to be created and managed will be set out within the LEMP, which will include the habitat monitoring required to ensure the habitats are achieving the required condition, as well as setting out remedial measures required if this is not the case. Habitat monitoring will be required for the first five years following construction, with the potential to be rolled over in perpetuity. Habitat monitoring will be the responsibility of the management company, who will appoint an ecologist to undertake this.

9 CONCLUSIONS

9.1 As the proposed development site is within the ZoI of the Cotswold Beechwoods SAC, potential impacts as a result of increased residential pressure have been identified. In line with Policy BG1 of the Cheltenham Plan, the development will be required to compensate for potential impacts through making a financial contribution towards the management of access routes, habitat management and visitor infrastructure. These requirements should be set out within a S106 agreement and will ensure the development is compliant with local policy Policy BG1 of the Cheltenham Plan, which relates to the SAC.

9.2 To ensure the development does not result in impacts on the Hatherley Brook and associated protected species (bats, otter, invertebrates), a buffer will be required along the western site boundary, which will need to be suitably managed and maintained post-construction. A lighting plan has been produced to demonstrate this boundary, alongside the northern boundary, can be maintained as a dark corridor suitable for commuting and foraging bats. With the implementation of this mitigation, the development is assessed to be compliant with Policy SD9 of the Gloucester, Cheltenham and Tewkesbury Joint Core Strategy 2011-2031.

9.3 Assuming the implementation of effective mitigation measures, as summarised in Table 3, no adverse ecological effects are predicted on habitats or protected/ notable species.

9.4 The mitigation and enhancement measures described could be secured by way of appropriately worded planning conditions and Section 106 Agreement. The proposed development is therefore in accordance with relevant national and local planning policies in relation to nature conservation and relevant wildlife legislation, as set out in Section 2.

REFERENCES

Cheltenham Borough Council (2020) Cheltenham Plan. Cheltenham Borough Council, Cheltenham.

CIEEM (2016) *UK Guidelines for Accessing and Using Biodiversity Data*. Chartered Institute of Ecology and Environmental Management (CIEEM), Winchester.

CIEEM (2017) *Guidelines on Ecological Report Writing*. Chartered Institute of Ecology and Environmental Management (CIEEM), Winchester.

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good practice Guidelines (3rd edn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1.

Countryside and Rights of Way Act 2000. Available at: http://www.legislation.gov.uk/ukpga/2000/37/contents.

Dean, M., Strachan, R., Gow, D., Andrews, R. (2016) *The Water Vole Mitigation Handbook. The Mammal Society Mitigation Guidance Series.* Eds Fiona Mathews and Paul Channin. The Mammal Society. London

Gloucester City Council, Cheltenham Borough Council and Tewkesbury Borough Council (2017) Joint Core Strategy 2011-2031. Gloucester City Council, Cheltenham Borough Council and Tewkesbury Council, Gloucestershire.

Harris, S., Cresswell, P. and Jefferies, D. J. (1989) Surveying Badgers. Issue 9 of *Occasional Publication of the Mammal Society*. ISBN- 978-0906282069.

HDA (2020) *Shurington Road Ecological Appraisal*.

JNCC (2010) Handbook for Phase 1 Habitat Survey. A Technique for Environmental Audit. JNCC, Peterborough. ISBN-978-0-86139-636-8.

JNCC (2011) UK Biodiversity Action Plan Priority Habitat Descriptions. Rivers. Available from: https://data.jncc.gov.uk/data/01d6ab5b-6805-4c4c-8d84-16bfebe95d31/UKBAP-BAPHabitats-45-Rivers-2011.pdf [Accessed November 2022]

Langton, T. E. S., Beckett, C. I., and Foster, J. P. (2001) Great Crested Newt Conservation Handbook, Froglife, Halesworth.

Mitchell-Jones, A. J. (ed.) (2004) Bat Mitigation Guidelines. English Nature, Peterborough. ISBN-1 85716-781-3.

Mitchell-Jones, A.J, & McLeish, A.P. Ed., (2004) 3rd Edition Bat Workers' Manual, 178 pages b/w photos, softback, ISBN-1 86107 558 8.

Natural England (2015) *Site Improvement Plan. Cotswold Beechwoods*.
Newland Homes (2022) *Pre-Planning Application Pack. Land at The Nurseries, Kidnappers Lane, Leckhampton.*

The Conservation of Habitats and Species 2017 (as amended) Available at: The Conservation of Habitats and Species Regulations 2017 (legislation.gov.uk)

Tyler Grange (2021) *Ecological Assessment. Land North of Church Road, Leckhampton.*

Wildlife and Countryside Act 1981. Available at: http://www.legislation.gov.uk/ukpga/1981/69.

APPENDIX 1 BAT SURVEY DATA

The following section details the results of the bat surveys at the site. Codes used in the description of bat species are as follows:

BAR	Barbastelle (*Barbastella barbastellus*)
CP	Common pipistrelle (*Pipistrellus pipitrellus*)
SP	Soprano pipistrelle (*Pipistrellus pygmaeus*)
NP	Nathusius' pipistrelle (*Pipistrellus nathusii*)
NOC	Noctule (*Nyctalus noctula*)
LEI	Leisler's bat (*Nyctalus leisleri*)
SER	Serotine (*Eptesicus serotinus*)
LHS	Lesser Horseshoe bat (*Rhinolophus hipposideros*)
GHS	Greater Horseshoe bat (*Rhinolophus ferrumequinum*)
MYOSP	Unidentified *Myotis* species
MYODAU	Daubenton's bat (*Myotis daubentonii*)
MYONATT	Natterer's bat (*Myotis nattereri*)
WHI/BRA	Whiskered/Brandt's bat (*Myotis mystacinus/ brandti*)
BLE	Brown long-eared bat (*Plecotus auritus*)

A summary of the bat activity surveys is included below, and the environmental variables recorded during the surveys are shown in Table 4.

Table 4 Environmental variables

	07/07/22 **Sunset: 21:28**		25/08/22 **Sunset: 20:12**		22/09/22 **Sunset: 19:07**	
Variable	**Start**	**End**	**Start**	**End**	**Start**	**End**
Time	21:28	23:29	20:30	22:35	19:00	20:10
Temperature (°C)	19	16	19	17	18	16
Relative Humidity (%)	59	37	73	71	67	78
Cloud cover (oktas)	0/8	0/8	2/8	7/8	8/8	7/8
Precipitation	None	None	Yesterday	Yesterday	None	During
Average wind speed (mps)	3.0	1.9	1.0	2.0	2.0	3.5

Survey 1: 7th July 2022 – Sunset: 21:28

- 21:43 – faint NOC call recorded in south-east corner of site.
- 22:00 – CP quick pass past north-west corner.
- 22:06 – CP foraging along northern boundary then commuting east.
- 22:13 – CP commuting south-west from northern corner of site.
- 22:16 - 22:19 – several CP passes along north-eastern site boundary.
- 22:23 – CP quick pass along eastern site boundary.
- 22:34 – MYOSP commuting along eastern site boundary.
- 22:40 – MYOSP foraging at southern corner of site.
- 22:52 – CP foraging along northern site boundary.
- 22:58 – NOC quick pass along northern boundary of site, CP foraging at northern corner.

- 23:15 – CP quick pass along eastern site boundary.

Overall, activity was assessed to be low, with bat activity focused along the site boundaries. The foraging activity was focused along the northern and southern boundaries.

Survey 2: 25th August 2022 – Sunset: 20:12

- 20:46 – NOC pass along north-eastern site boundary.
- 20:48 – 2 x MYOSP foraging around eastern corner of site for several minutes.
- 20:59 – CP and MYOSP foraging around south-eastern corner of site for several minutes.
- 21:01 – MYODAU and MYONATT quick pass along southern site boundary.
- 21:04 – MYODAU and CP foraging around southern corner of site.
- 21:06 – NOC pass near southern corner of site.
- 21:20 – CP and MYOSP foraging along western site boundary.
- 21:32 – NOC pass along northern site boundary.
- 21:37 – MYOSP and CP foraging across the centre of the site.
- 21:46 – NOC and MYOSP foraging around eastern corner of the site.
- 21:51 – MYOSP and CP foraging over field in eastern section of the site.
- 21:54 – MYOSP quick pass along southern site boundary.
- 21:59 – NOC quick pass along southern site boundary.
- 22:02 – CP and MYOSP brief pass past southern corner of site.
- 22:10 – CP and MYONATT foraging along western site boundary for several minutes.
- 22:25 – CP quick pass across centre of the site.

Overall, activity was assessed to be moderate, with the site boundaries being the key activity areas. Some of the activity was recorded across the centre of the site.

Survey 3: 22nd September 2022 – Sunset: 19:07

- 19:24 – CP commuting east to west across the centre of the site.
- 19:34 – CP quick pass past south-eastern corner of site.
- 19:41 – CP and MYOSP quick pass past southern corner of site.
- 19:44 – MYOSP commuting along western site boundary.
- 19:45 – CP commuting south across the centre of the site.
- 19:50 – MYOSP commuting south along Hatherley Brook from north-western corner of the site.

Overall, activity was assessed to be low, however the survey had to be called off early due to heavy rainfall. The bat activity was focused along the site boundaries with some commuting across the centre of the site.

Results of the static detector surveys are summarised below and in Table 5.

- A total of fourteen species of bat were recorded across the site, namely CP, SP, NP, NOC, SER, LEI, BLE, LHS, GHS, MYODAU, MYONATT, MYOSP, BAR and WHI/BRA.

- CP, SP, NOC, LHS, MYONATT and WHI/BRA were recorded on all static detectors, with CP accounting for the highest percentage of records, ranging from 47% to 88% of records. During August, MYODAU accounted for 23% of records along the western boundary and LHS accounted for 23% of records along the northern boundary.
- The highest average calls per night were recorded on static 4, which was deployed along the northern boundary of the site during the August 2022 survey period.
- Generally, activity* levels across the remaining survey locations were similar and there was no location with significantly higher activity*.
- Relatively low numbers of NOC, LEI and SER were recorded.

**NB: The term 'Activity' has been used during the analysis of the static bat detectors. Whilst static bat detectors cannot give an accurate indication of the number of bats foraging/commuting on site, they provide valuable information relating to species composition and comparisons from the number of records across the site. In this instance, the term 'activity' is based off the mean average records per night in order to prevent a period of intensive foraging over a short period of time skewing the results. It also allows for true comparison when detectors are deployed for different periods of time.*

Table 5 Static detector survey results summary

Static Number	Location Deployed	Average calls/night (across all species)	Species Recorded	Comments
1	Western boundary	118	8 species: CP, SP, NOC, LEI, SER, WHI/BRA, LHS, MYONATT.	CP accounted for 88% of records
2	Northern boundary	107	10 species: CP, SP, NP, NOC, SER, WHI/BRA, MYONATT, LHS, MYODAU, BLE.	CP accounted for 87% of records.
3	Western boundary	232	13 species: CP, SP, NP, BAR, NOC, LEI, SER, WHI/BRA, MYONATT, GHS, LHS, MYODAU, BLE.	CP accounted for 47% of records, MYODAU accounted for 23% of records.
4	Northern boundary	297	12 species: CP, SP, BAR, NOC, LEI, SER, WHI/BRA, MYONATT, LHS, MYODAU, BLE.	CP accounted for 51% of records, LHS accounted for 23% of records.
5	Western boundary	92	9 species: CP, SP, NOC, WHI/BRA, MYONATT, MYOSP, MYODAU, LHS, BLE.	CP accounted for 85% of records.
6	Northern boundary	63	10 species: CP, SP, NP, NOC, WHI/BRA, MYOSP, MYONATT, MYODAU, LHS, BLE.	CP accounted for 84% of records.

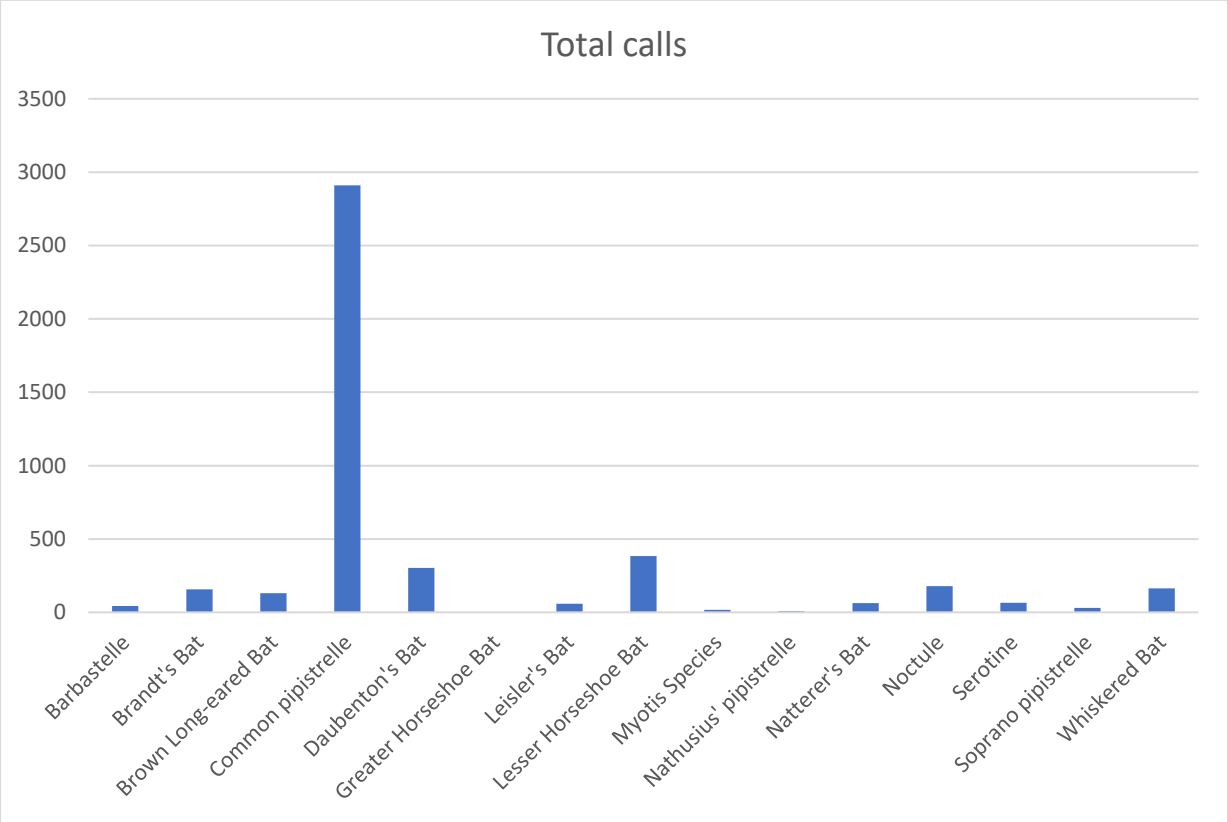


Figure 9 Total bat calls across the site

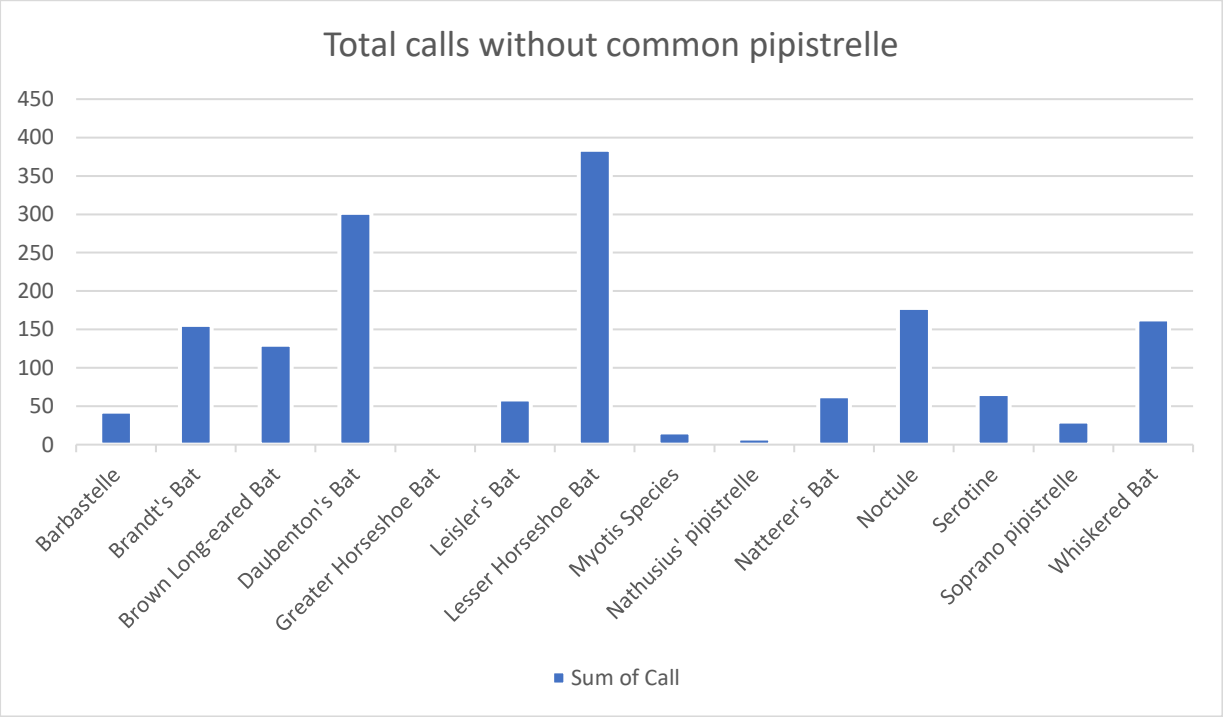


Figure 10 Total bat calls across the site without common pipistrelle

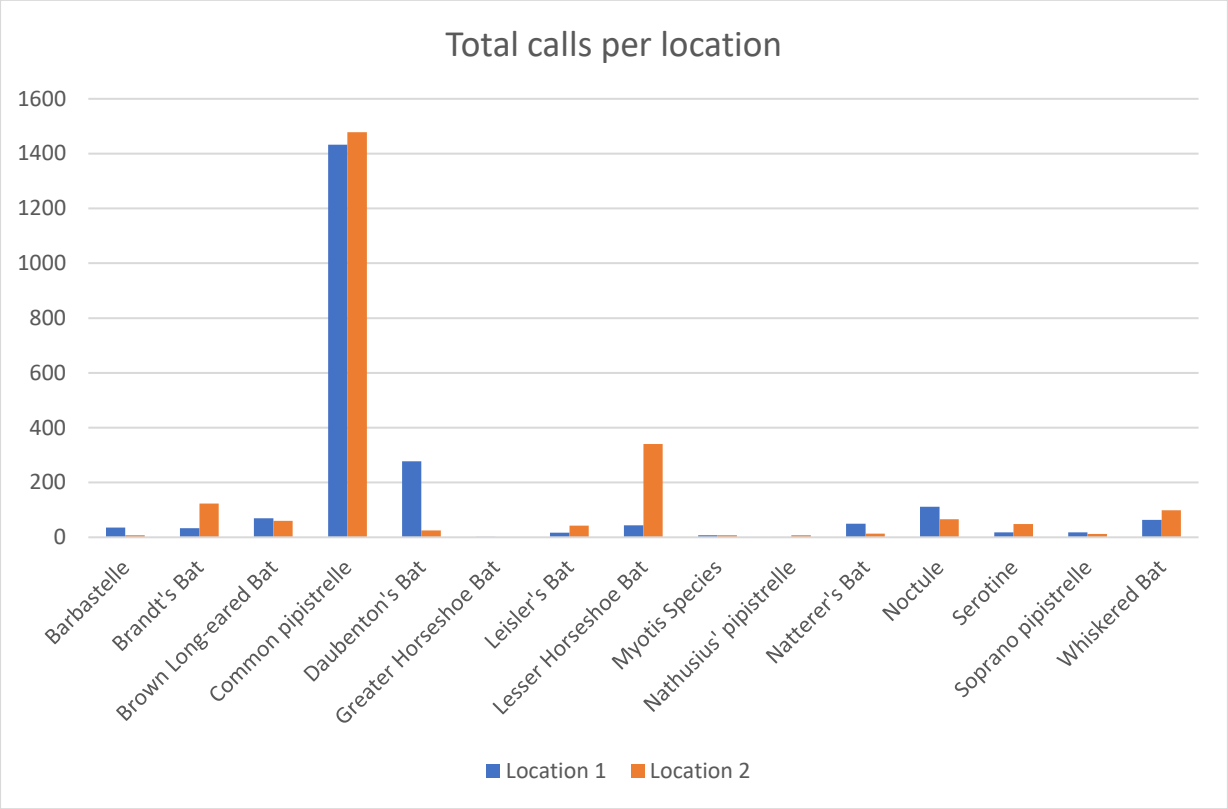


Figure 11 Total bat calls per location

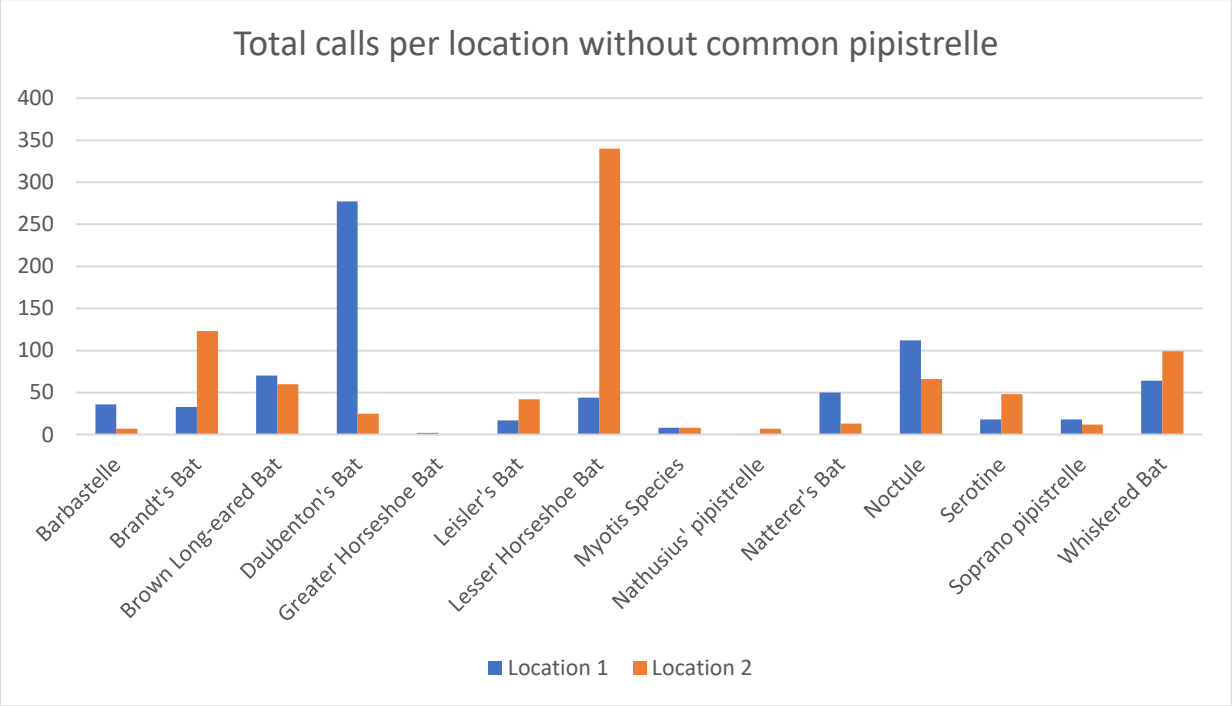


Figure 12 Total bat calls per location without common pipistrelle

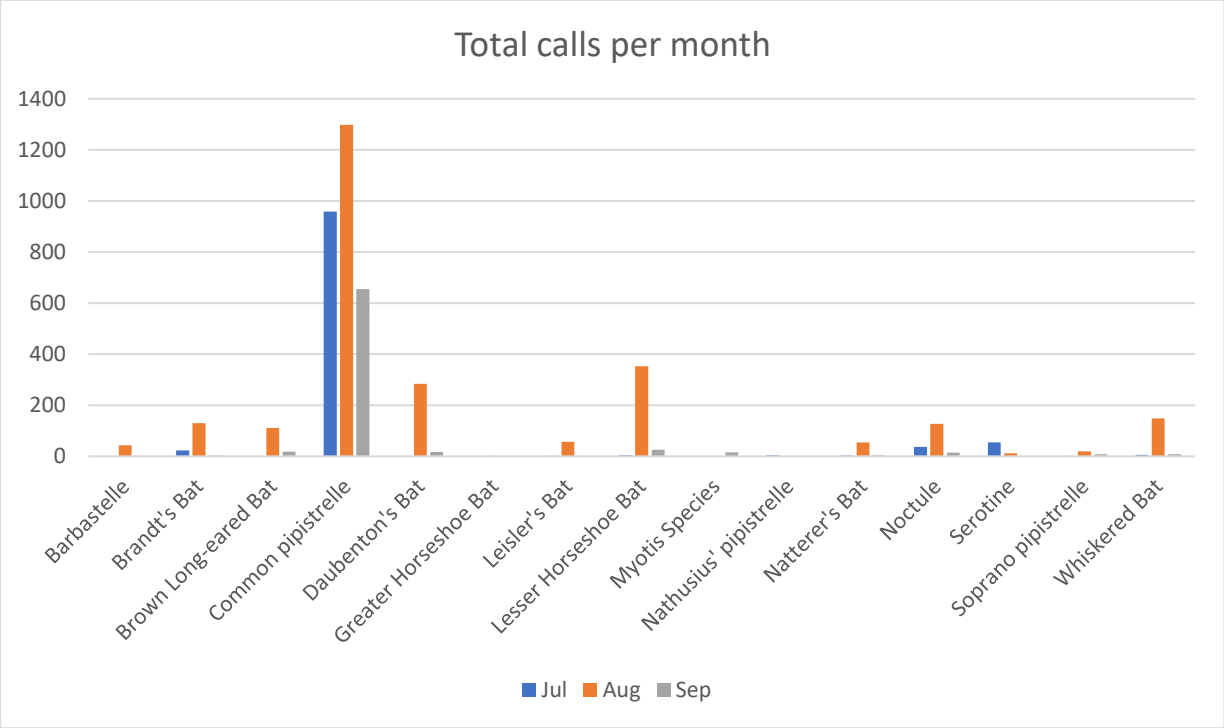


Figure 13 Total bat calls per month

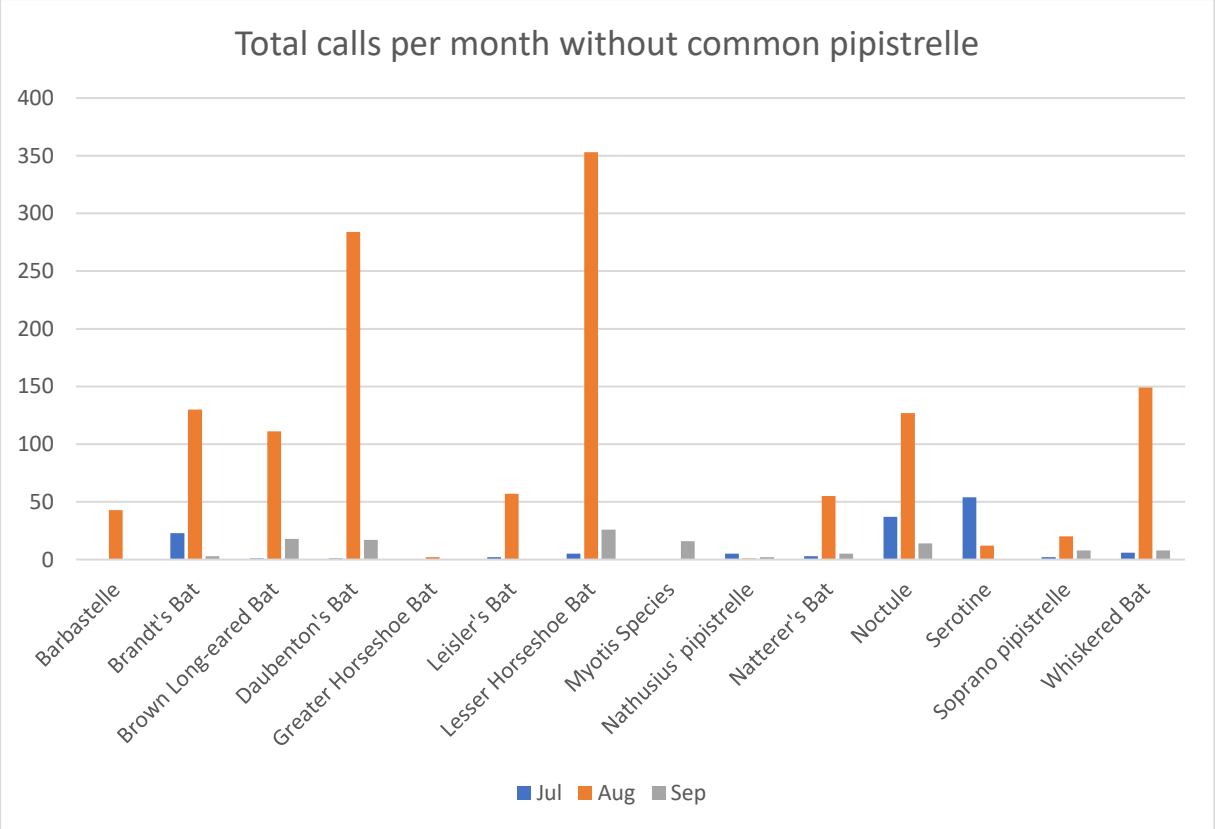


Figure 14 Total bat calls per month without common pipistrelle

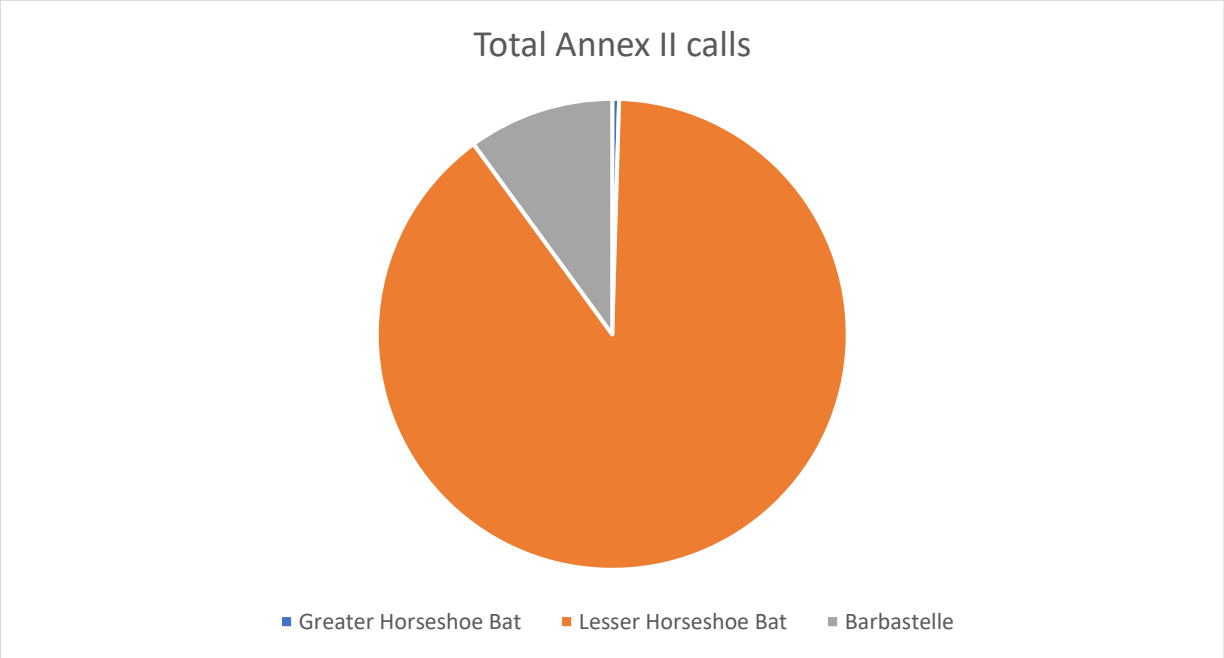


Figure 15 Total Annex II species calls

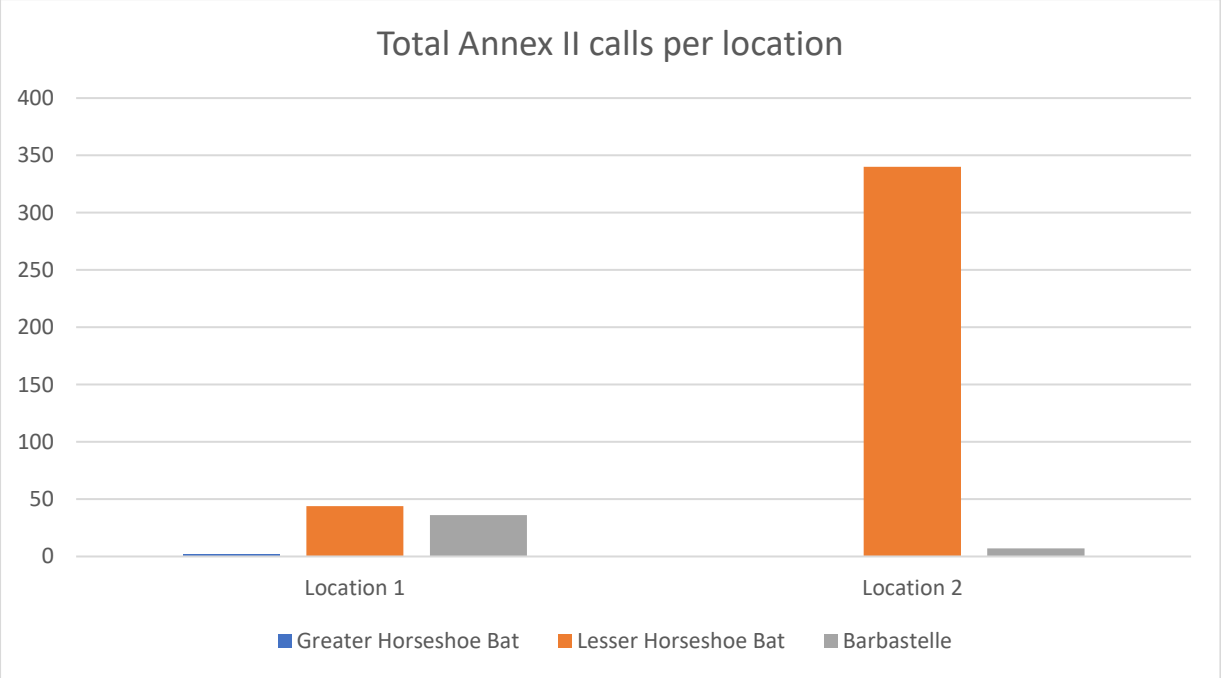


Figure 16 Total Annex II species calls per location

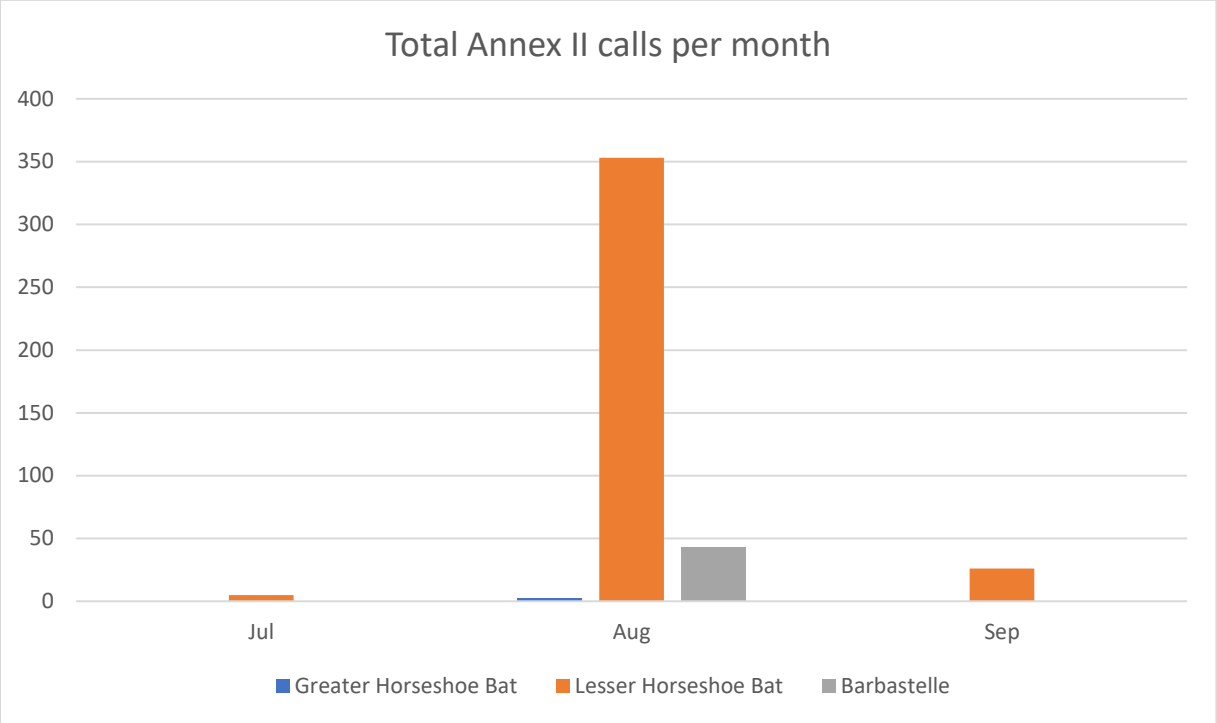


Figure 17 Total Annex II species calls per month

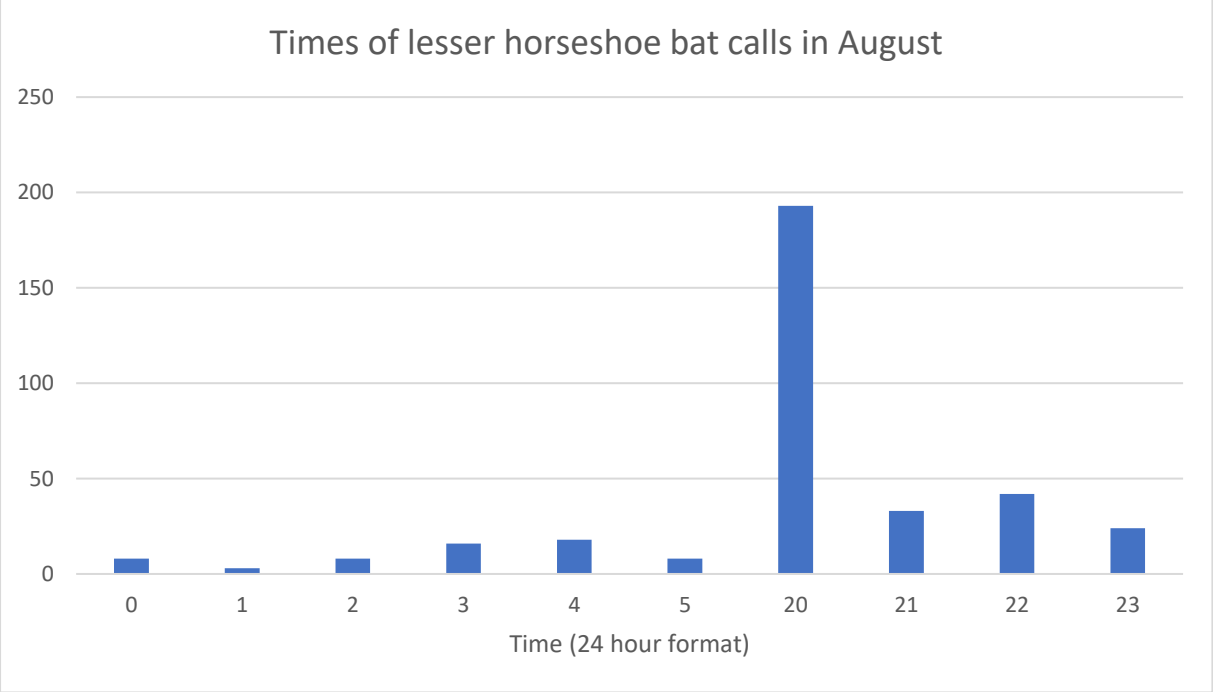


Figure 18 Times of lesser horseshoe calls in August

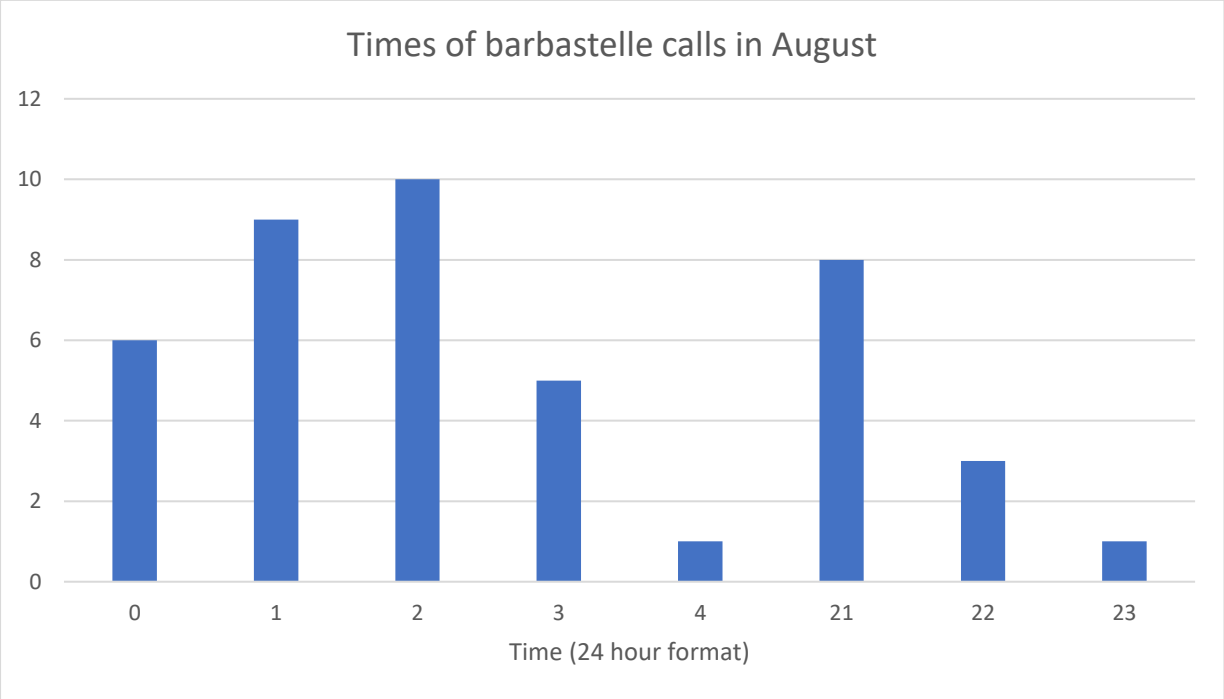


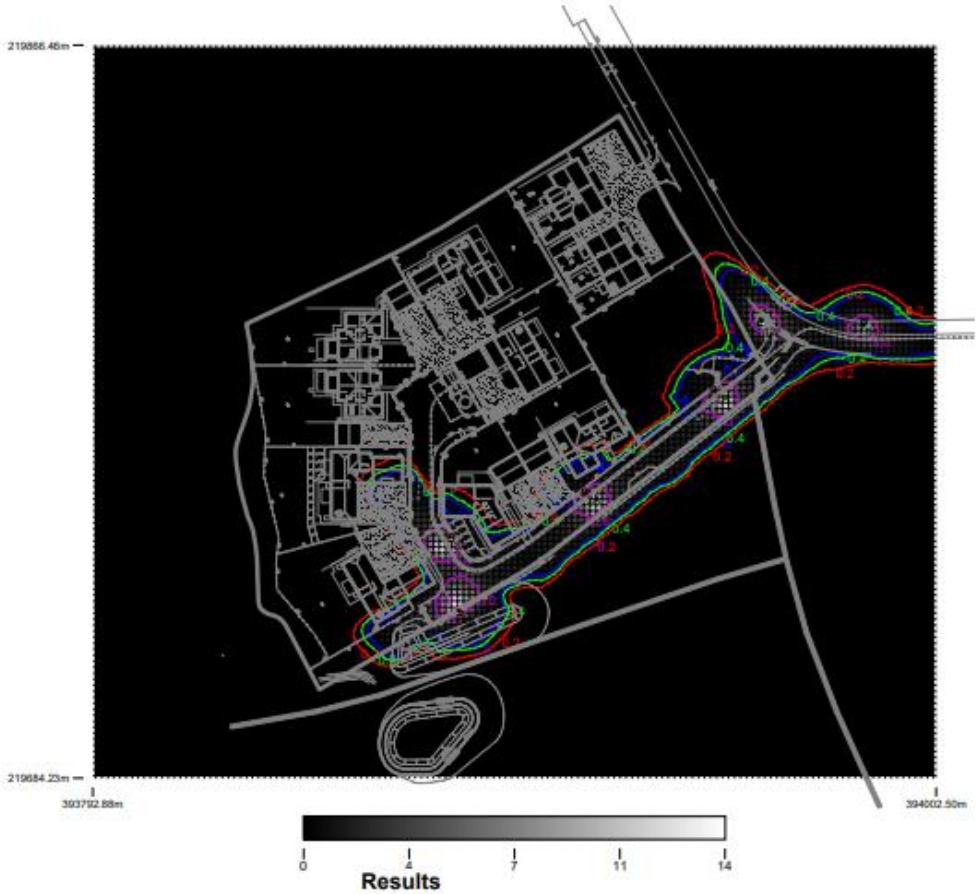
Figure 19 Times of barbastelle calls in August

APPENDIX 2 LIGHTING STRATEGY

PROJECT No: 888 PROJECT NAME: Kidnappers Lane, Leckhampton. REALITY

Horizontal Illuminance (lux)

Grid 1



Results

Eav	0.20
Emin	0.00
Emax	14.04
Emin/Emax	0.00
Emin/Eav	0.00

Lighting Reality Ltd. Park Business Centre, Wood Lane, Erdington, Birmingham, B24 9QR UK e-mail: sales@lightingreality.com website: www.lightingreality.com