



Aerial image of development area (indicative yellow dashed line) at Fernhill Heath (March 2023)

ARBORICULTURAL IMPACT ASSESSMENT & TREE PROTECTION SCHEME

Site: Land off Dilmore Lane, Fernhill Heath
Postcode: WR3
Client: Lionscourt Strategic Land

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NON-TECHNICAL SUMMARY

Site Name & Address	Land off Dilmore Lane, Fernhill Heath, Worcestershire			
Client Name	Lionscourt Strategic Land Ltd			
Local Planning Authority	Wychavon District Council			
Development Proposal	Outline planning application for up to 130 dwellings (Use Class C3), including vehicular access from Dilmore Lane, pedestrian and cycle links, public open space, car parking, drainage, landscaping and other associated infrastructure. All matters reserved except for access.			
Summary of existing tree stock	Category A	Category B	Category C	Category U
	4	31	51	11
Summary of impacts to existing tree stock	Hedge Removals	Tree Pruning	Incursions to Root Protection Area	
	3 removed (H6, H7, H9) 4 partially removed (H5, H20, H26, H63)	None	None	
Relevant Planning Policies (trees)	Local Planning Policy		National Planning Policy	
	SWDP 21 - Design SWDP 22 – Biodiversity & Geodiversity SWDP 25 – Landscape Character		Para 131 – Right Tree Right Place Para 174 – Ecosystem services Para 180 – Irreplaceable habitat	
Statutory Considerations	Conservation Area		Tree Preservation Order	
	No		No	
Non-Statutory Considerations	ASNW		Veteran or ancient trees	
	No		Yes (T57, T69, T72)	

1. INTRODUCTION

Instruction

1.1 I have been instructed to undertake a tree survey over land off Dilmore Lane, Fernhill Heath, Worcestershire to assist in the potential development of the site.

Scope

1.2 The scope of this instruction has been to:

- Undertake a tree survey to determine the range, age and quality of trees across the site;
- Provide advice and guidance to the project design team on all matters relating to trees (excluding ecological matters or landscape design); and
- Prepare the required reports and plans to accompany an outline planning application to Wychavon District Council (the local planning authority) for the proposed development.

Purpose of this report

1.3 This report is an Arboricultural Impact Assessment. It has been written to inform planning decision makers as to the actual and potential impact to the existing tree stock from the proposed development scheme. Impacts can be defined as being direct or indirect, and can occur over short, medium and long term time periods.

- **Direct impacts** may arise from activities that result in tree removal, or as a result of root severance, soil compaction or soil contamination, all of which may cause the tree to decline and be lost. Other direct impacts include loss of vitality and exposure to pests and disease as a result of excessive canopy pruning.
- **Indirect impacts** may arise from future pressures from trees such as future growth, daylight, shading and sunlight, tree domination and/or soil movement.

1.4 The report is intended to be read by those who do not necessarily have specialist knowledge of trees and is therefore written in non-technical language. Where the use of technical terms is unavoidable, these will be highlighted in **bold** when first used and a definition provided in a [glossary of terms](#) at the end of this report.

1.5 Plans and Schedules to be read in conjunction with this report:

Type	Reference	Version
Tree Schedule	205-FERN-INF-SCH	1
Tree Constraints Plan	205-FERN-DRW-TCP	1
Tree Removals & Protection Plan	205-FERN-DRW-TRPP	1

Site Description

1.6 The land at Fernhill Heath ('the Site') is centred at OS Grid Reference SO866595 and around postcode WR3. An image of the Site in Plate 1 shows the extent of the project boundary.

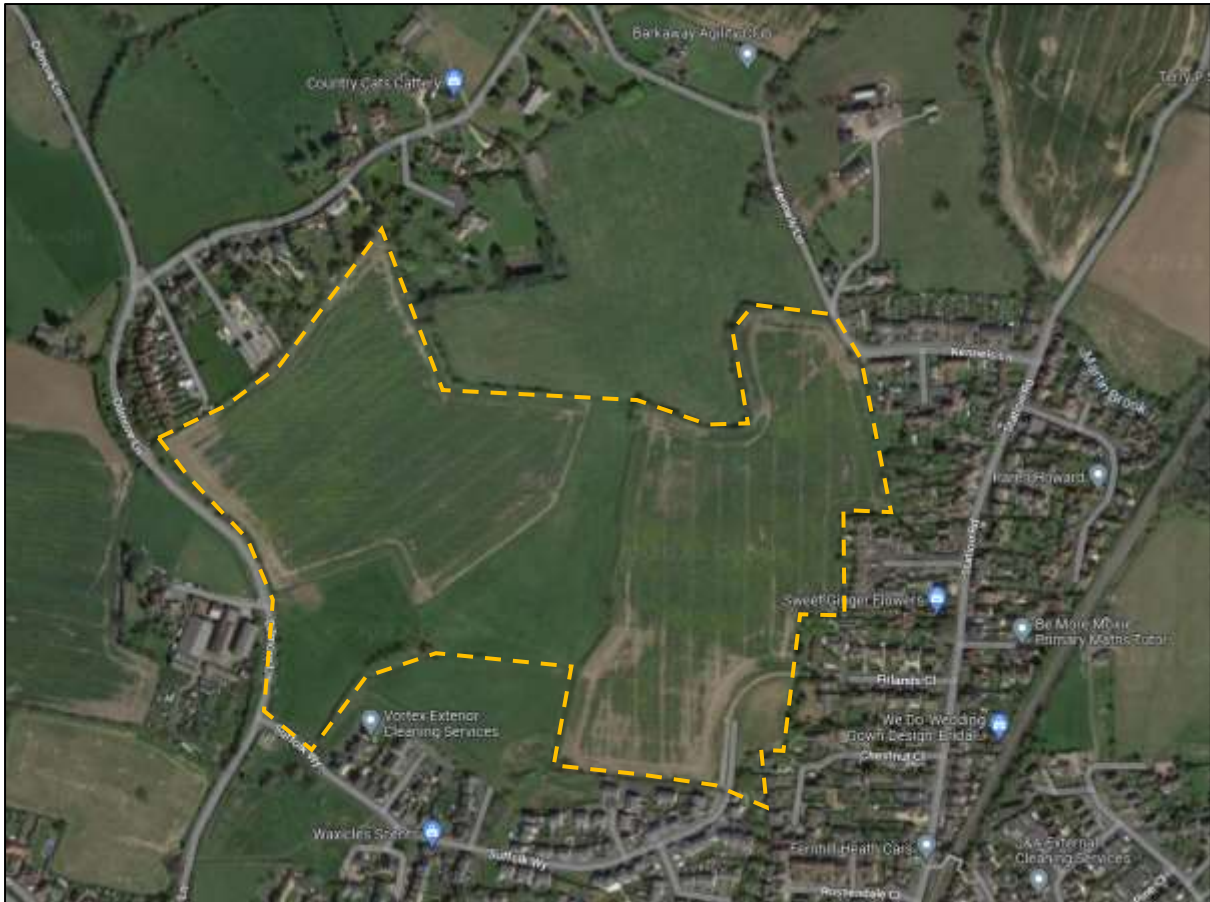


Plate 1: Land at Fernhill Heath, with survey extents defined by the dashed yellow line (Google Maps: 08.03.2023)

Caveats and Limitations

- 1.7 While all reasonable efforts have been made to identify the condition and quality of the trees on site, the statements made in this report and schedules do not take into account the effects of extreme weather events, vandalism or accidents, or changes to the site that may affect trees that have taken place since the date of the survey.
- 1.8 I can confirm that the survey has been undertaken in accordance with industry best practice recommendations and guidance, but no warranty is provided in relation to changes to the site that occur after the date of the survey that may have an impact on the tree stock present at the time of the survey.
- 1.9 Unless stated differently in captions, all photographs used in this report have been taken by the author at the time of the site visit.
- 1.10 The comments and observations made within this report will cease to be valid either within two years of the date of the survey (unless specifically stated elsewhere within the report), or when site conditions change or any works to trees take place that have not been specified within this report, whichever is the sooner.
- 1.11 The survey has been undertaken with the benefit of a topographical survey prepared by Chilcote Engineering Services (reference 2308-J) in February 2023. The location of the trees and groups

recorded during the survey is taken from the data on the topographical survey and no warranty is provided as to the accuracy of these locations.

1.12 The tree survey has included trees that are outside of the application boundary but under the same land ownership. The impact assessment in this report only considers trees within the application boundary, although the wider tree stock is presented in the tree schedule and on the plans.

1.13 This report relies upon the following drawings and plans provided by third parties:

Type	Reference	Prepared by
Topographical Survey	2308-J	Chilcote Engineering Services
Illustrative Master Plan	8824_APP002	LDA

1.14 Where trees have not been recorded on the topographical survey but are captured in the tree survey, these have been highlighted with a hash (#) in the tree schedule and plans. These positions are indicative only and should not be relied upon for detailed design work.

1.15 This survey has been limited to identifying arboricultural features within the Site. It does not include any ecological assessment or landscape appraisal of trees, groups, woodlands or hedges beyond the scope of BS5837.

1.16 Although I am occasionally involved in landscape, ecological and planning issues, I have no formal qualifications in these areas and any comments made in this report to such matters are limited to the general context in view of my familiarity through my day-to-day work, and professional advice should be obtained on these matters where required.

2. DEVELOPMENT PROPOSAL

2.1 The development proposal is an outline planning application for up to 130 dwellings (Use Class C3), including vehicular access from Dilmore Lane, pedestrian and cycle links, public open space, car parking, drainage, landscaping and other associated infrastructure. All matters reserved except for access.

3. TREE SURVEY AND CONSTRAINTS

Tree Survey

3.1 I carried out the tree survey on 7th March 2023. The weather conditions were clear with good visibility, and I was unaccompanied at all times.

Tree Survey Methodology

3.2 The survey has been carried out as a ground based visual assessment only following the guidance provided in BS5837.

3.3 The information collected during the survey has been used to assist in the design of the site to minimise the impacts to the existing tree stock. This report includes:

- A schedule of the relevant trees to include base line data and quality assessment; and
- A plan showing the extent of constraints presented by the existing tree stock (herein after referred to as a Tree Constraints Plan (TCP)) that provides illustrative information on the constraints, for consideration during the design of the site.

General Data Capture

- 3.4 For reference, individual trees are identified with the letter T and associated number on the Tree Schedule and on a plan showing the extent of tree constraints. The stem diameter of the trees on Site was recorded using a rounded down diameter tape, measured at 1.5m above ground level. Measurements were recorded in millimetres, rounded to the nearest 10mm.
- 3.5 The heights of the subject trees were estimated to the nearest metre.
- 3.6 Maximum crown spread of the subject tree was measured from the edge of the trunk to the tips of the live lateral branches taken at four compass points (N-E-S-W) using a Leica Disto digital laser measure. Crown spread measurements were taken in metres.
- 3.7 Tree age was estimated from visual indicators (such as tree size and appearance of bark) which is provided as a provisional guide (see [Glossary](#) for definitions of age classes).
- 3.8 Groups of trees were identified with the letter G and number on the associated schedule and plans. Crown spread was assessed using topographical data to position the extents. Stem diameter of groups of trees was set as an average stem diameter of the trees within these individual groups and a maximum height of the tallest tree within the group.
- 3.9 Hedges are identified with the letter H and number on the associated schedule and plans. Each hedgerow was surveyed recording the species, the maximum height and the average width of the hedge. Any individual trees present within the hedgerow are recorded as an individual tree (T).
- 3.10 If direct access to a tree was not possible, estimations from appropriate vantage points were taken. Any limitations or estimations are presented within the survey limitations section and noted in the associated schedules.

Categorisation

- 3.11 In compliance with Table 1 of BS5837 the trees surveyed have been categorised according to their arboricultural quality and value (non-fiscal) which is summarised below in Table 1.

Table 1 - Summary of BS5837 categorisation colours

Category	Colour	Description
A	Green	Trees of high quality with an estimated remaining life expectancy of at least 40 years
B	Blue	Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
C	Grey	Trees of low quality with an estimated remaining life expectancy of at least 10 years
U	Red	Those trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

4. ARBORICULTURAL ASSESSMENT

Tree Quality

- 4.1 A summary of my assessment on the quality of the trees is presented in Table 2.

Table 2 - Summary of tree quality on site

	Category A	Category B	Category C	Category U	Total
Group	0	3	10	2	15
Hedge	0	6	21	0	27
Tree	4	22	20	9	55
Total	4	31	51	11	97

- 4.2 The majority (52.5%) of trees have been categorised as being of low quality, with moderate quality trees (32%) forming the next largest group.

Age Diversity

- 4.3 A summary of the age class of the trees across the site, cross referenced to the quality assessment is presented in Table 3.

Table 3: Summary of tree age class across the site

	Category A	Category B	Category C	Category U	Total
Young	0	0	2	0	2
Semi Mature	0	0	8	0	8
Early Mature	0	5	8	3	16
Mature	1	26	32	6	65
Over Mature	0	0	1	0	1
Ancient	3	0	0	0	3
Dead	0	0	0	2	2
Total	4	31	51	11	97

- 4.4 The majority (67%) of trees on site are in the **mature** age class and are relatively equally split between moderate (27%) and low (33%) quality.
- 4.5 Three trees (T57, T69 & T72) have been identified as being **ancient** due to their size and age. These trees are irreplaceable habitat of the highest arboricultural, cultural, and ecological value.

Species Diversity

- 4.6 There is a broad diversity of species within the survey area, with 17 different tree species identified across the 55 individual trees. The nine species with the highest count are presented in Chart 1.

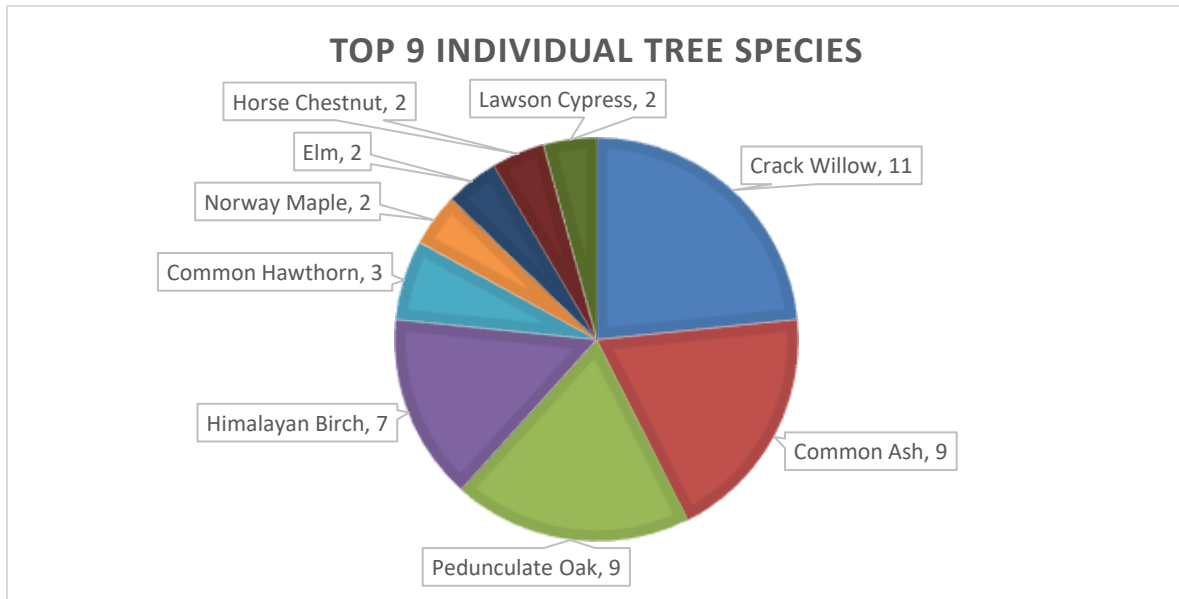


Chart 1: Species diversity at Fernhill Heath (top 9)

Above Ground Tree Constraints – Tree Canopies

- 4.7 The above ground constraints posed by canopy spread are plotted as a continuous line around the tree, with the extent of the canopy spread hatched in the corresponding BS5837 retention category colour.

Below Ground Constraints - Root Protection Area

- 4.8 The Root Protection Areas (RPA) is the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority. This does not account for the actual depth of the soil within the area, nor does it account for any requirement for working space during development.
- 4.9 The RPA of each tree has been calculated in accordance with Section 4.6.1 in BS5837. This is determined through multiplying the stem diameter of each tree, measured at 1.5m above ground level, by a factor of 12. The below ground constraints posed by the RPA have been plotted on the TCP as a magenta line with the text RPA inscribed.
- 4.10 The RPA is initially plotted as a circle with the tree in the centre. Where site conditions may influence the shape and size of the RPA (e.g. the presence of roads, buildings or other structures), BS5837 recommends the shape and size of the RPA be amended. No trees on this site have had the RPA adjusted for site conditions, although three trees (T57, T69 & T72) have had the RPA increased due to being designated as ancient trees (see [Standing Advice](#) for more details).

5. STATUTORY AND OTHER CONSTRAINTS

Statutory Considerations

Tree Protection

- 5.1 Fernhill Heath is located within the boundary of Wychavon District Council (WDC), the Local Planning Authority (LPA). The LPA has a statutory obligation to ensure that provision is made

for the protection of trees, through section 197 of the Town and Country Planning Act (1990). The principal form of protection comes through trees being subject to a **Tree Preservation Order (TPO)** or being located in a **Conservation Area**. A search has been undertaken on the WDC website to determine the presence or otherwise of TPO or Conservation Areas.

- 5.2 The results of the search reveal that the Site is not located within a conservation area, and that none of the trees on site are subject to a TPO (see Plate 2).

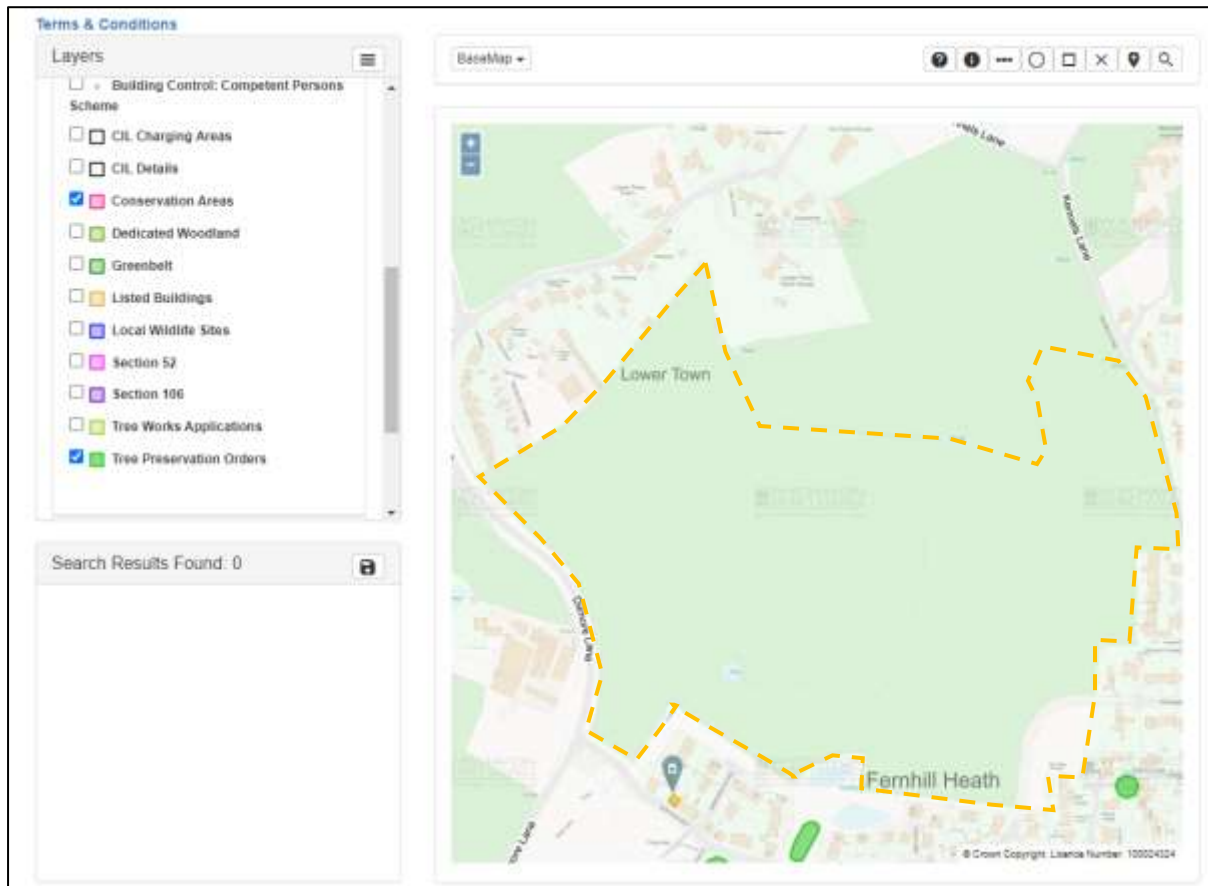


Plate 2: Extract from Wychavon interactive planning map (accessed: 08.03.2023) (site area in yellow dash)

Forestry Act

- 5.3 The Forestry Act (1967) requires that permission is obtained from the Forestry Commission for the felling of any trees in England or Wales. There are certain exceptions from this requirement including the felling of trees required to allow a planning permission to be carried out¹.

An exception applies where the felling of trees is immediately required for the purpose of carrying out development that is authorised by the approval of full planning permission (granted, or deemed to be granted, under the Town and Country Planning Act 1990, including any planning conditions or s.106 agreements attached to a full planning consent). The approved planning permission will detail the extent of the approved development and may also define the trees that are allowed to be felled or those that must be retained. Any tree felling outside that boundary will require a licence.

¹ [Tree Felling- Getting Permission \(Forestry Commission\)](#)

The development exception can relate to individual or groups of trees or woodland, and for trees to be exempt from the need for a felling licence at least one of the following conditions must be met:

- *trees must be explicitly identified in the planning consent as being permitted for removal;*
- *the trees must stand within the footprint of the proposed development; or*
- *the removal of the trees must be necessary in order to carry out the proposed development (e.g. they block an access route to which there is no alternative, or lie in such close proximity to the proposed development that they prevent the carrying out of that development).*

The exception does not simply extend to all trees within the boundary of the fully approved proposed development.

- 5.4 The removal of any tree for a development scheme will be explicitly stated within this report for the purpose of the planning application. Any removals that are required that are not covered by the planning consent may require a felling licence from the Forestry Commission.

Non-statutory considerations

Soils

- 5.5 Paragraph 4.3 of BS5837 recommends that a soil assessment be completed by a competent person to inform decisions relating to the RPA, tree protection, new planting design and foundation design. I am not able to provide this assessment as I have no formal qualifications in this area, and professional advice should be taken to provide any detailed reports.
- 5.6 However, generic soil data is freely available from online sources such as the Geology of Britain viewer² which can provide a broad indication of the underlying geology of a site. The results of a search for this Site describes the bedrock geology as being Sidmouth Mudstone Formation, with superficial deposits of Kidderminster Station Member (sand and gravel), a soil type described as being freely draining and slightly acidic loam³. The superficial deposits are unlikely to weather to produce a shrinkable soil, but the underlying bedrock could produce a shrinkable clay soil. Specialist geotechnical surveys will be able to confirm this, and subject to those tests, further guidance on foundation design in relation to trees, such as NHBC Chapter 4.2, may need to be consulted.
- 5.7 The soil type will have an impact on any recommendations for replacement or enhancement planting that may form a part of any landscape strategy for a planning application.

Veteran and Ancient Trees - Standing Advice

- 5.8 **Veteran** and ancient trees are considered to be irreplaceable habitat, although there is no specific statutory protection afforded to such trees. [National and local planning policy](#) explicitly states that planning consent should not be granted when it will require the removal of these trees, unless there are wholly exceptional reasons.

² <http://mapapps.bgs.ac.uk/geologyofbritain/home.html?>

³ <https://www.landis.org.uk/soilscapes/#>

5.9 The Forestry Commission has provided specific guidance to planning decision makers to help assess the impact of development on ancient and veteran trees⁴. This guidance specifically states that:

You should refuse planning permission if development will result in the loss or deterioration of ancient woodland, ancient trees and veteran trees unless both of the following applies:

- *there are wholly exceptional reasons*
- *there's a suitable compensation strategy in place (this must not be a part of considerations of wholly exceptional reasons) - see paragraphs 33 and 34 of the planning practice guidance on compensation guidance*

You should make decisions in line with paragraph 180 (c) of the NPPF.

Ancient woodland, ancient trees and veteran trees are irreplaceable. Therefore, you should not consider proposed compensation measures as part of your assessment of the merits of the development proposal.

5.10 Further guidance is given for the provision of buffer zones around the trees:

For ancient or veteran trees (including those on the woodland boundary), the buffer zone should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5 metres from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter. This will create a minimum root protection area.

5.11 The three trees on site that have been identified as being ancient have had the RPA around them increased from the standard 12x stem diameter (capped at 15m) to 15x stem diameter, with no cap. These changes are summarised in Table 4.

Table 4: Ancient Tree Buffer Zones (RPA)

Tree No	Stem Diameter (mm)	RPA radius (12x, capped) (m)	RPA radius (15x, uncapped) (m)
T057	1500	15	22.5
T069	1400	15	21
T072	1500	15	22.5

6. NATIONAL AND LOCAL PLANNING POLICIES

National Planning Policy Framework 2021

6.1 National Planning Policy is currently defined by the National Planning Policy Framework (NPPF). This provides the most current and up to date planning guidance.

6.2 At the heart of the NPPF is a presumption in favour of sustainable development, and specifically states that for decision making, the LPA should be approving development proposals that accord with the development plan without delay.

⁴<https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions>

- 6.3 Section 12 of the NPPF recognises the importance of integrating trees into urban environments as part of achieving well-designed places. While the primary focus is on new tree planting, the importance of retaining existing trees and incorporation into proposals is a driving factor, stating that:

“Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.” (Paragraph 131)

- 6.4 In addition, Section 15 of the NPPF recognises the importance of conserving and enhancing the natural environment, and specifically acknowledges the role of trees and woodland in the provision of natural capital and ecosystem services.
- 6.5 It further acknowledges the importance of ancient woodlands and veteran trees for habitats and biodiversity and requires that planning consent should be refused where development schemes require the removal of such features unless there are wholly exceptional reasons, stating that:

“development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.” (Paragraph 180, c)

Local Planning Policy

- 6.6 The LPA has a duty to ensure that local matters are considered through the planning process, and this includes protection of trees.
- 6.7 Wychavon District Council has teamed with Malvern Hills and Worcester City councils to prepare a joint development plan to consider the long-term vision and objectives for South Worcestershire up to the year 2030. This has resulted in the South Worcestershire Development Plan 2016 (SWDP).
- 6.8 The SWDP does not have any policies that specifically seek the protection or enhancement of trees, but instead references the importance of trees obliquely as landscape or ecological assets. The policies within the Local Plan that are relevant to trees are summarised in Table 5. Full extracts of the policies are presented in Appendix 1.

Table 5: Summary of Local Planning Policy

Policy No	Title	Description (this is not a full copy of the policy. Only extracts relevant to trees are included below)
SWDP21	Design	<p>All development will be expected to be of a high design quality. It will need to integrate effectively with its surroundings, in terms of form and function, reinforce local distinctiveness and conserve, and where appropriate, enhance cultural and heritage assets and their settings.....</p> <p>ii. Relationship to Surroundings and to Other Development: Development proposals must complement the character of the area. In particular, development should respond to surrounding buildings and the distinctive features or qualities that contribute to the visual and heritage interest of the townscape, frontages, streets and landscape quality of the local area.</p>
SWDP22	Biodiversity & Geodiversity	<p>c. Development which would result in the loss or deterioration of an Ancient Woodland (AW), a Veteran Tree (VT), or a nationally protected species will not be permitted unless the need for and the benefits of the proposed development in that location clearly outweigh the loss or deterioration.</p> <p>f. Development should, wherever practicable, be designed to enhance biodiversity and geodiversity (including soils) conservation interests as well as conserve on-site biodiversity corridors / networks. Developments should also take opportunities, where practicable, to enhance biodiversity corridors / networks beyond the site boundary</p>
SWDP25	Landscape Character	<p>A. Development proposals and their associated landscaping schemes must demonstrate the following: ii) That they are appropriate to, and integrate with, the character of the landscape setting.</p> <p>B. A Landscape and Visual Impact Assessment (LVIA)(53) will be required for all major development proposals and for other proposals where they are likely to have a detrimental impact upon...ii) An irreplaceable landscape feature</p>

7. ARBORICULTURAL IMPACT ASSESSMENT

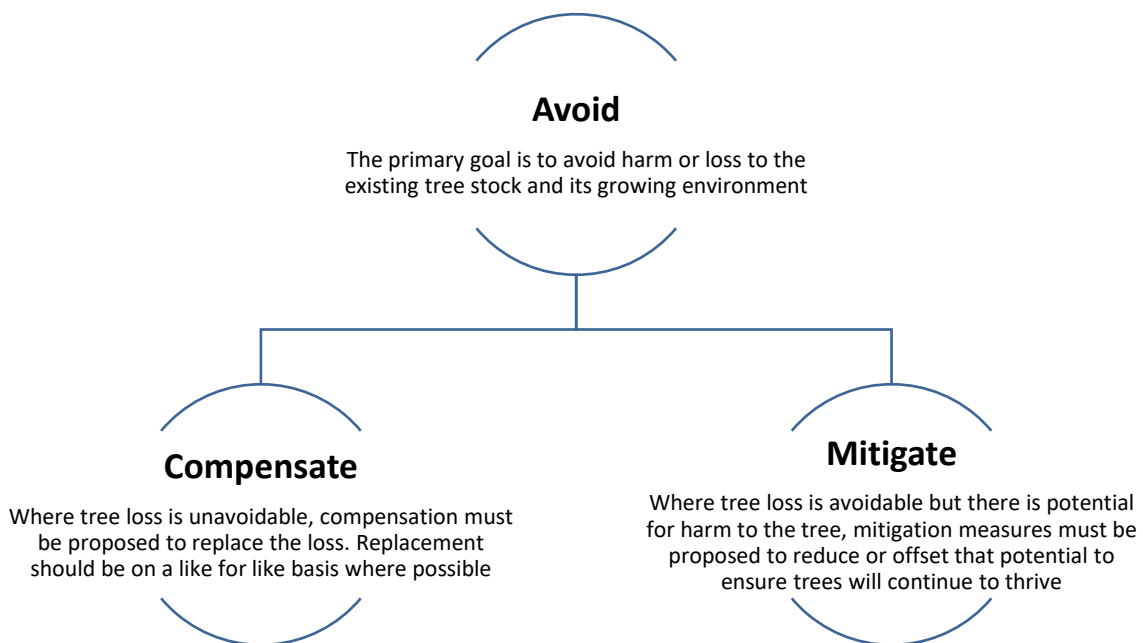
Tree Survey Area & Development Proposal

7.1 The tree survey encompassed all of the tree over the landholding referred to as Fernhill Heath and as illustrated in Plate 1. However, the proposed scheme only covers the land in the southern half of the survey area. This report has been prepared in the basis of assessing the impact on, and ensuring the protection of, all trees within the survey area, not just the proposed development area.

General Considerations

- 7.2 Development can have an adverse impact on trees and other woody vegetation within a site, which can result in:
- i. Immediate tree removal to facilitate the footprint of a new development;
 - ii. Potential future tree loss through the early decline of trees due to soil compaction or damage;
 - iii. Root disturbance and damage within a tree's rooting area; and

- iv. Canopy removal or damage due to plant movement.
 - v. Future pressure for tree removal or extensive tree maintenance.
- 7.3 Best practice guidance proposed by the arboricultural sector seeks to ensure that there is a harmonious relationship between trees and development that will ensure that both trees and structures can be retained in the long term⁵.
- 7.4 Where practical, development should seek to work with the natural environment, and development schemes that might result in harm should follow a mitigation hierarchy to ensure harm is minimised.
- 7.5 To assist the planning decision makers, this scheme should use the following mitigation hierarchy to consider the influence that trees might have on site design while also continuing to make a positive contribution to the site and local character of the area, both during and post development:



Assessing Impacts

- 7.6 The impact of any tree loss is assessed against a criterion in relation to the arboricultural significance of the loss, the detail of which is provided in Table 6. This table is not related to the quality categories provided in BS5837 but has a closer relationship to the sub-categories through assessing the impact that tree loss may have at the Site and its setting in the wider locality. This assessment is also useful in considering the impact of any potential loss against planning policy.
- 7.7 It is to be noted that this assessment reviews illustrative proposals at this outline stage and a further review of the layout at reserved matters stage will be undertaken.

⁵ BS5837 (2012) Page 1

Table 6 - Impact Assessment definitions

Scale of Impact	Definition
Major	<p>Total loss or major/substantial alteration to key trees/features of the baseline (pre-development) conditions such that the post development character or composition will be fundamentally changed.</p> <p>This would generally apply to tree(s) that are of exceptional or high quality and condition and their loss would be irreplaceable. This would also include trees that have been categorised as being Ancient or Veteran, trees are rare examples of their species and or trees that offer significant amenity value to the character and setting of the area.</p>
Moderate	<p>Loss or alteration to one or more key trees/features of the baseline conditions such that post development character or composition of the baseline will be materially changed.</p> <p>This would generally apply to tree(s) that are of good quality and condition and make a notable contribution to the setting or character of the locality (visual amenity). This may include trees that would be hard to replace but for which there could be some mitigation over a medium timeframe (20-40 years).</p>
Minor	<p>A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible/detectable but not material. The underlying character or composition of the baseline condition will be similar to the pre-development circumstances/situation.</p> <p>This would generally apply to tree(s) that are of low quality and condition and/or their loss would have low impact on the locality. These trees would be relatively easy to replace within a short timeframe (10-20 years).</p>
Negligible	<p>Very little change from baseline conditions with any change barely distinguishable.</p> <p>This would generally apply to tree(s) that are of low quality and condition, and/or their loss would barely be noticeable. Any replacement planting would offer an improvement to the setting of the site in a very short time frame (1-10 years)</p>
No Change	<p>There is no change to the baseline conditions to trees from the development proposal.</p>

7.8 The duration of the impact is also considered and is assessed as being long-term (20 years+), medium term (10 years+) and short-term (<10 years). This will help guide any compensation or mitigation that is required for losses or other impacts.

Tree & Hedge Loss (Direct Impact)

7.9 The proposed scheme, while illustrative at this stage, does not require the removal of any trees at the Site. However, it does result in the removal of three hedges (H6, H7 & H9) and the removal of short sections of four additional hedges (H5, H20, H26 & H63).

- 7.10 The three hedges that are being removed have been assessed as being of low quality and condition (see Plate 3 - Plate 5), and their removal will not materially alter the arboricultural contribution being made the site. These losses are negligible, and any replacement planting will replace this loss very quickly over a short period of time.
- 7.11 The main road across the site will require the removal of short sections of H20 and H26 for the forming of a new junction on Dilmore Lane to the west of the site. A 15m length at the northern end of H20 will be removed and 10m removed from the southern end of H26. The access road also requires the removal of 25m from the northern end of H5. A new footpath across the site dissects H63 and a short stretch of 10m will be removed to allow connectivity across the Site.
- 7.12 The removal of these short sections of hedge is assessed as being insignificant in terms of the arboricultural contribution for the site and therefore the impact is negligible. The growth and ongoing management of the retained hedges will ensure that within two growing season the losses will not be noticeable and therefore any impact is only short term.



Plate 3: H6 is a low quality hedge to be removed



Plate 4: H7 is to be removed



Plate 5: H9 is to be removed

7.13 The removals have been highlighted on the Tree Retentions & Protection Plan (TRPP) with a red dashed line, and in the tree schedule with red text. The partial removals are highlighted with blue text in the tree schedule.

Incursions to the Root Protection Area (Direct Impact)

7.14 There will be no incursions to the RPA of retained trees. All development and development activity will take place outside the RPA. Protection measures will be required to ensure that there is no inadvertent encroachment of the RPA during the construction phase, and this is covered in the section on [Tree Protection Measures](#) below.

Tree Pruning (Indirect Impact)

7.15 None of the trees on site will require any pruning to enable this development and no facilitation pruning is required for access.

8. PROTECTION OF RETAINED TREES

8.1 Retained trees and the RPA will be protected throughout the development through the use of fencing that will limit the potential for physical damage to the trees or compaction of the soil. For this scheme, two types of tree protection fencing are proposed:

- **Post and rail** – the northern boundary of the development area will be fenced from the remaining agricultural land to the north using wooden post and rails with stock proof wire mesh. An example image is presented in Plate 6 and is marked in the TRPP with a brown line interspersed with circles.



Plate 6: Example of post and rail fence with wire mesh (Source: [Kudos Fencing](#))

- Heras fencing panels** – the areas that are internal the site will be protected with temporary fencing formed from Heras fencing panels fixed to scaffold frame. This will create a barrier that will not only be resistant damage from vehicles strikes but will also be immovable. An example image is presented in Plate 7 and is marked in the TRPP with a black dashed line.

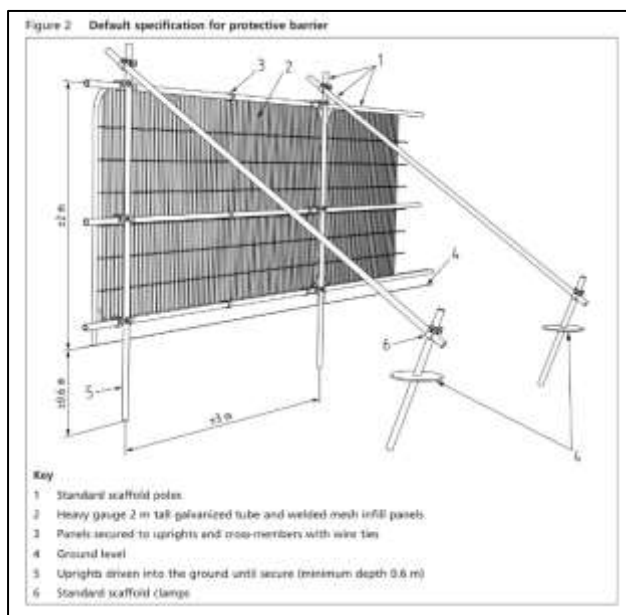


Plate 7: Heras fencing on scaffold frame (Source: BS5837:2012)

- 8.2 The areas protected by the fencing are Construction Exclusion Zones (CEZ) into which there will be no access for construction personnel, machinery or materials for the duration of the development.
- 8.3 All tree protection measures must be retained and maintained for the duration of the construction phase of this development.

9. ABOUT THE AUTHOR

- 9.1 I am a director of Tree Frontiers Ltd with 20 years' experience working in the sector. I have a first-class honour's degree in arboriculture from Myerscough College, accredited by the University of Lancaster.
- 9.2 I am a Registered Consultant of the Arboricultural Association as well as a Chartered Member of the Institute of Chartered Foresters. I abide by the code of ethics and professional standards of these institutions.

10. REFERENCES

10.1 This report has relied upon the following external reference sources:

- British Standards Institution (2012) BS5837: *Trees in relation to design, demolition and construction – recommendations*. London: BSI
- Gov.uk (2021) [National Planning Policy Framework](#).
- South Worcestershire Development Plan (2016) [Local Plan](#)
- Wychavon District Council (2023) [Conservation Area and Tree Preservation Order Search](#) (Accessed 08.03.2023)
- British Geological Society (2023) [Geology of Britain Viewer](#). (Accessed 08.03.2023)
- Cranfield Soil and Agrifood Institute (2023) [Soilscapes](#) (Accessed 08.03.2023)
- Forestry Commission (2022) [Standing Advice for Ancient Woodland, Ancient Tree and Veteran Trees](#). (Accessed: 08.03.2023)
- Gov.uk (1997) [Hedgerow Regulations](#).

11. GLOSSARY OF TERMS

Ancient - An ancient tree is exceptionally valuable, although very few trees reach the age to be classified as ancient. Unlike **Veterans**, ancient is an age classification, and attributes can include its age, size, condition, biodiversity value as a result of significant wood decay and the habitat created from the ageing process, and/or cultural and heritage value.

Arboricultural Method Statement - methodology for the implementation of any aspect of development that is within the **root protection area**, or has the potential to result in loss of or damage to a tree to be retained.

Conservation Area - An area recognized in the Town and Country Planning Act 1990 as being 'of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance'. Trees may make a significant contribution to the character of a conservation area, so any works to trees in a conservation area will require notification to be made to the local authority, which then has six weeks to consider the works. Notice may be submitted as part of a planning application, provided that the required works are clearly stated.

Construction Exclusion Zone - area based on the **root protection area** from which access is prohibited for the duration of a project.

Coppice/coppicing – The practice of cutting a tree back to near ground level to encourage multiple stems of second-generation growth. This is a management practice that is not suitable for all tree species, and is commonly used in the management of hazel and sweet chestnut in woodlands, and ash and sycamore in hedgerows. Other species of broadleaf tree can also be managed in this way. The old coppice stump is the **stool**.

Early mature – Age class of a tree in its life cycle between youth and maturity, getting close to reaching its maximum potential (see **Mature**), but still increasing in size and spread.

Facilitation Pruning - one-off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary to enable consented operations on site.

Maiden – A tree that has never been altered by pruning.

Mature – Age class of a tree that reached its maximum growth potential (height and spread) for the species and environment conditions. 20-80% of a tree's life can be spent in the mature stage.

Over mature – Age class of trees that are still close to their full height and crown size, but showing indication of **senescence** with retrenchment (slow reduction) of the overall canopy size. The main stem diameter (which by now is large) increases more slowly. Some **veteran** characteristics may start to appear.

Pollard/Pollarding – A pollard is a tree that has been pollarded or subject to pollarding. Pollarding is the complete or partial removal of the live growth of the canopy to control the height and spread of the tree. The management regime is repeated frequently to maintain this growth pattern.

Root Protection Area (RPA) - layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.

Senescence - The late stage of a tree's life characterized by a decline in the volume of the crown and root system.

Semi mature – Age class of tree that is established but not yet close to reaching its full height and growth potential, and which could be moved with specialist equipment.

Tree Preservation Order - An order made by a local authority or other planning authority to protect a tree, group of trees, area of (scattered) trees or woodland under Part VIII of the Town and Country Planning Act 1990, amended by the Town and Country Planning (Tree Preservation) (England) Regulations 2012. An order is generally made on the grounds of amenity and expediency, and anyone proposing works to a TPO tree must seek prior consent from the local authority. This consent can include planning permission provided the required works are clearly defined and necessary for the consent scheme to progress.

Tree Protection Plan - scale drawing, informed by descriptive text where necessary, based upon the finalized proposals, showing trees for retention and illustrating the tree and landscape protection measures.

Veteran– A veteran tree may not be very old, but the term is not a classification of age. It has significant decay features, such as branch death and hollowing which contribute to its exceptional biodiversity, cultural and heritage value. All ancient trees are veteran trees, but not all veteran trees are ancient. The age at which a tree becomes **ancient** or veteran will vary by species because each species ages at a different rate.

Young – Age class of a tree that has recently been planted, or which is becoming established but could be moved without specialist equipment.

12. APPENDIX 1: LOCAL PLAN – TREE RELATED POLICIES

SWDP21: Design

All development will be expected to be of a high design quality. It will need to integrate effectively with its surroundings, in terms of form and function, reinforce local distinctiveness and conserve, and where appropriate, enhance cultural and heritage assets and their settings. New and innovative designs will be encouraged and supported where they enhance the overall quality of the built environment.

B. Applications should demonstrate, through a Design and Access Statement or other supporting evidence, how the objectives outlined in criterion A have been addressed. They will also need to address the following matters:

- i. Siting and Layout - The siting and layout of a development should reflect the given characteristics of the site in terms of its appearance and function. Orientation should take advantage of passive heating and cooling systems, offer shade as appropriate and provide for the use of renewable energy.
- ii. Relationship to Surroundings and to Other Development - Development proposals must complement the character of the area. In particular, development should respond to surrounding buildings and the distinctive features or qualities that contribute to the visual and heritage interest of the townscape, frontages, streets and landscape quality of the local area.
- iii. The Settings of the City and Towns - Design proposals should ensure that the prominent views, vistas and skylines of Worcester city and the towns are maintained and safeguarded, particularly where they relate to heritage assets, existing landmark buildings, and 'gateway' sites. Development at the urban edges should respect the rural setting.
- iv. Neighbouring Amenity - Development should provide an adequate level of privacy, outlook, sunlight and daylight, and should not be unduly overbearing.
- v. Settlement Character - The distinct identity and character of settlements should be safeguarded.
- vi. Mix of Uses - To create vitality and interest, proposals should incorporate a mix of uses where appropriate to the location.
- vii. Flexible Design - Buildings should incorporate flexible designs, addressing access to public open spaces and enabling adaption for future needs and uses in terms of internal spaces and extensions.
- viii. Scale, Height and Massing - The scale, height and massing of development must be appropriate to the setting of the site and the surrounding landscape character and townscape, including existing urban grain and density.
- ix. Links, Connectivity and Access - Design and layouts should maximise opportunities for pedestrian and cycle linkages to the surrounding area and local services and should be generally accessible for all users, including those with disabilities. Vehicular traffic from the development should be able to access the highway safely and the road network should have the capacity to accommodate the type and volume of traffic from the development.

x. Detailed Design and Materials - The detailing and materials of development should be of high quality and appropriate to its context. Design should have regard to sustainable construction approaches and ensure adaptability to changes in the climate.

xi. Appropriate Facilities - Development should incorporate the required parking facilities and provision for the storage of bicycles. Satisfactory access and provision for the parking, servicing and manoeuvring of vehicles should be provided in accordance with the recognised standards.

xii. Landscaping - Development should provide high quality hard and soft landscaping. The importance of soft landscaping, using appropriate species and incorporating arrangements for long-term management is emphasised.

xiii. Public Realm - Public realm and open spaces should be well-designed, appropriately detailed and maintained via management agreements. They should also incorporate active frontages where appropriate. Proposals should include hard and soft surfaces, public art, street furniture, shade, lighting and signage as appropriate to the development.

xiv. Creating a Safe and Secure Environment - Opportunities for creating a safe and secure environment and providing surveillance should be included, principally through the layout and positioning of buildings, spaces and uses. Where appropriate, development should incorporate measures for crime reduction that are consistent with those recommended by the Secured by Design guides. Buildings and their surrounding spaces should incorporate fire safety measures and be designed to allow rapid access by the emergency services.

xv. Advertisements - Illuminated signage will only be permitted where lighting is unobtrusive or not considered to be harmful to the character and appearance of the site or surroundings. Consent will be granted for outdoor advertisements (including poster hoardings) provided the display will not adversely affect the amenities of the area or impact on public safety.

SWDP 22: Biodiversity and Geodiversity

Development which would compromise the favourable condition of a Special Area of Conservation (SAC)(47) or other international designations or the favourable conservation status of European or nationally protected(48) species or habitats will not be permitted.

B. Development likely to have an adverse effect on a Site of Special Scientific Interest (SSSI)(49) will not be permitted, except where the benefits of the development at that site clearly outweigh both its likely impact on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs.

C. Development which would result in the loss or deterioration of an Ancient Woodland (AW), a Veteran Tree (VT), or a nationally protected species will not be permitted unless the need for and benefits of the proposed development in that location clearly outweigh the loss or deterioration.

D. Development which would compromise the favourable condition or the favourable conservation status of a Grassland Inventory Site (GIS), a Local Wildlife Site (LWS), a Local Geological Site (LGS), an important individual tree or woodland and species or habitats of principal importance recognised in the Biodiversity Action Plan, or listed under Section 41 of the Natural Environment and Rural Communities Act 2006, will only be permitted if the need for and the benefits of the proposed development outweigh the loss.

E. Where the policy requirements of B, C or D have been met, full compensatory provision, to include establishment (secured through a legal agreement where appropriate), commensurate with the ecological / geological value of the site will be required. In the first instance this should be through on-site mitigation, the details of which should be agreed with the Local Planning Authority.

Off-site mitigation will only be acceptable where on-site mitigation is shown not to be possible.

F. Development should, wherever practicable, be designed to enhance biodiversity and geodiversity (including soils) conservation interests as well as conserve on-site biodiversity corridors / networks. Developments should also take opportunities, where practicable, to enhance biodiversity corridors / networks beyond the site boundary. e benefits of the proposed development in that location clearly outweigh the loss or deterioration.

SWDP 25: Landscape Character.

Development proposals and their associated landscaping schemes must demonstrate the following:

- i. That they take into account the latest Landscape Character Assessment(52) and its guidelines; and
- ii. That they are appropriate to, and integrate with, the character of the landscape setting; and
- iii. That they conserve, and where appropriate, enhance the primary characteristics defined in character assessments and important features of the Land Cover Parcel, and have taken any available opportunity to enhance the landscape.

B. A Landscape and Visual Impact Assessment (LVIA)(53) will be required for all major development proposals and for other proposals where they are likely to have a detrimental impact upon:

- i. A significant landscape attribute;
- ii. An irreplaceable landscape feature; or
- iii. The landscape as a resource.

The Landscape and Visual Impact Assessment should include proposals to protect and conserve key landscape features and attributes and, where appropriate, enhance landscape quality.