Technical Note TN09
Project: Downlands Farm
Planning Ref: WD/2022/1637/MEA
Date: 25 November 2022

Response to WDC Ecology Consultation

Executive summary

I) Comments have been received from the Wealden District Council (WDC) Biodiversity and Arboricultural Officer in relation to the above application (dated 14/10/22), which are addressed in this Technical Note. These relate to a number of topics presented under a series of headings. For ease of reference, the same headings are utilised in this response. A consultation response dated 17 October 2022 has also been received from the Wealden District Council Tree and Landscape Officer which mirrors that of the Biodiversity Officer and hence the points raised are covered in the below response.

SuDS, Proposed Directional Drilling under and into Ancient Woodland, Irreplaceable Habitat and AW Buffer Zones

ii) The Biodiversity Officer raises a concern in respect of the siting and effectiveness of SuDS in the buffer to the ancient woodland. Reassurance is provided to the Officer by the content of Natural England's standing advice which lists wetland and SuDS (where these are outside of the TPOs of trees) as legitimate uses within the buffers. Similarly, reassurance is provided as to the effectiveness of the SuDS and that detailed design work has been undertaken to ensure that their pollution control effectiveness meets the required indexation to ensure that adverse effects on the ancient woodland are avoided.

iii) In order to ensure the current hydrological regime within the ancient woodland is unaltered, the site drainage design has been informed by detailed survey and investigative work. This work has identified 11 side incision features feed the ghylls. To ensure flows to these points are maintained, rather than centralise the site drainage, the drainage has been dispersed to ensure that flows are fed to each of these locations in line with the current position. Where necessary, directional drilling will be utilised to insert pipework beneath the soil horizons. This technique is approved by Natural England's national ancient woodland specialist and avoids deterioration of the woodland.

iv) Accordingly, the scheme design will ensure no adverse hydrological effects arise on the ancient woodland. Similarly, no adverse air quality effects are anticipated while footfall in the woodland will be carefully controlled by visitor access management measures with extensive areas of non-wooded open space also provided so as to draw recreational pressure away from the woods. Accordingly, we can advise it is considered that there is no requirement for the buffer to be extended to a distance beyond 15m in width. In any event a review of the site masterplan finds that the proposed buffer considerably exceeds 15m in a range of locations.

Installation, Lighting and Access through Fir Tree Grove Ancient Woodland

v) The Biodiversity Officer has raised the issue of the potential of the use of boardwalks to adversely affect ancient woodland. This note provides assurance that boardwalks are a well established method, used by organisations such as Wildlife Trusts, The National Trust and Natural England, to provide access to ancient woodlands. Facilitating such access is a key aim of the government's policy on ancient woodland 'Keepers of Time' and the use of boardwalks is a recognised method of ground protection which does not lead to loss or deterioration of ancient woodland soils and is recommended by Natural England in their consultation response in relation to this site.

vi) It is advised that the lighting design for the boardwalk has been very carefully developed under the key principle of minimising and containing illumination so that a) at all times the continuous woodland canopy above the boardwalk remains unilluminated such that the dark canopy link is uninterrupted, while b) adaptive lighting is employed to detect approaching boardwalk users and provide full illumination only for the period required and c) such lighting is carefully controlled so spill into the surrounding woodland is minimised and contained within 1.2 m of the boardwalk and limited to 0.2lux at ground level i.e. a very low level equivalent to moonlight. These measures will ensure that nocturnal woodland wildlife is unaffected by the boardwalk. It is important to also note that lighting is mostly required in the winter months when nocturnal wildlife e.g. bats and Dormice, are hibernating and so are not present.

Access to Ancient Woodland, Irreplaceable Habitat

vii) As set out above, facilitating access to ancient woodland is a key aim of the government's policy on ancient woodland 'Keepers of Time'. It also recognises that in some instances access needs to be managed. In this regard detailed work has been undertaken to define the sensitivity of the ancient woodland. This work has identified a number of areas of increased sensitivity and as a result of this work these have been excluded from the SANG. Natural England's consultation response on the proposals expresses no in-principle objection to the use of the woodland as SANG and helpfully comments on the SANG design so as to effectively manage visitor access.

Biodiversity Net-Gain/Loss & SANGS

viii) Bringing the habitats and especially the woodland into favourable conservation management offers very real opportunities to improve their biodiversity value, and management activities have been selected to achieve these targets. These measures are compatible with the use of the woodland as SANG where active visitor access management measures are in place.

1 Introduction

1.1.1 Comments have been received from the Wealden District Council (WDC) Biodiversity and Arboricultural Officer in relation to the above application (dated 14/10/22), which are addressed in this Technical Note. A consultation response dated 17 October 2022 has also been received from the Wealden District Council Tree and Landscape Officer which mirrors that of the Biodiversity Officer and hence the points raised are covered in the below response.

1.1.2 Comments have also been received from a number of non-statutory consultees including the Woodland Trust (dated 16/09/22), and from the Sussex Wildlife Trust (dated 12/09/22). We have also been provided with a copy of the Wealden District Council Parish Council Meeting

Minutes (dated 26/09/22), where the views of other non-statutory consultees have been captured. There is a degree of overlap with the comments provided by WDC, and those from non-statutory consultees, and for this reason we have also provided a response to these in the form of Technical Note TN06 which is submitted under separate cover.

1.1.3 Comments from Natural England, which relate mainly to the specification and suitability of the SANG provided have been addressed under separate cover.

2 Issues raised

2.1.1 The WDC Biodiversity and Arboricultural Officer (Hereafter referred to as WDC Ecology) raises the following issues:

i. SuDS, Proposed Directional Drilling under and into Ancient Woodland, Irreplaceable Habitat and AW Buffer Zones
ii. Installation, Lighting and Access through Fir Tree Grove Ancient Woodland, Irreplaceable Habitat
iii. Access to Ancient Woodland, Irreplaceable Habitat
iv. Biodiversity Net-Gain/Loss & SANGS

2.1.2 These issues are discussed below utilising where possible the same headings.

3 SuDS, Proposed Directional Drilling under and into Ancient Woodland, Irreplaceable Habitat and AW Buffer Zones

3.1 Suitability of SuDS for inclusion in ancient woodland buffers

3.1.1 The Ancient Woodland Inventory is maintained by Natural England who are the government's statutory advisor on Nature Conservation. Natural England, alongside the Forestry Commission, in turn provide standing advice in respect of 'Ancient woodland, ancient trees and veteran trees: advice for making planning decisions' January 2022[1].

3.1.2 The Biodiversity Officer notes that 9 of the proposed SuDS are within the Ancient Woodland buffer zone, and comments on the proximity of these to the Ancient Woodland boundary:

"The development proposes 13 SUDS ponds on the site. 9 of these are proposed within the minimum 15 metre buffer zone for ancient woodland, irreplaceable habitat. This includes SUDS pond on sheet 2 of the hard and soft landscape plan at 7 metres, SUDS on sheet 3 at 4 metres, SUDS on sheet 4 at 7 metres and SUDS on sheet 6 at 0 metres. It is clear SUDS at these locations will not be able to be accommodated without impacts upon AW."

3.1.3 In making this observation however, the Biodiversity Officer overlooks the Natural England standing advice and we can provide reassurance that this advice clearly lists wetlands as one of the uses which are permitted within the buffer zone to ancient woodland, stating that *"A buffer zone should consist of semi-natural habitats such as: woodland; a mix of scrub, grassland, heathland and wetland"*, SuDS being clearly a form of wetland. Indeed, the standing advice continues, specifically advising that *"You should only approve sustainable drainage*

[1] https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions

schemes if: they do not affect root protection areas; and any change to the water table does not negatively affect ancient woodland or ancient and veteran trees".

3.1.4 In regard to the proposal at Downlands, the scheme has benefitted from detailed arboricultural advice which has ensured that SuDS have been located outside of the root protection areas of trees. Accordingly, no impacts to ancient woodland would arise from the location of the SuDS.

3.2 Effectiveness of SuDS

3.2.1 WDC Ecology go on to say that: *"Failure of SUDS drainage and effectiveness to capture pollutants, contaminants and nutrients would lead to AW degradation and loss.*

3.2.2 In making these comments, WDC Ecology may not be familiar with Chapter 8 of the Environmental Statement (Water Resources and Flood Risk) which details the SuDS design with further information provided within Appendix 8.1 (Flood Risk Assessment and Drainage Strategy). As such we would direct the Biodiversity officer to this material. An assessment of the treatment capacity of the SuDS features has been carried out, following the methodology set out in current CIRIA SuDS Manual[2], which applies a pollution index and a treatment index to examine the performance of the proposed drainage feature in the context of the proposed land uses on site. This industry standard pollution hazard index approach is used to ensure that sufficient treatment is provided for the proposed uses on site. Surface water running off these land types (residential roofs, and residential access roads) generally contains very low levels of pollutants, and this is taken into account in the results presented. A combination of a swale and detention basin would provide sufficient treatment for the access roads within the development (medium pollution hazard).

3.2.3 Provision will be made for all drainage features to be suitably managed to ensure that they are not subject to failure. Section 4.42 of the Flood Risk Assessment confirms that: *"The at-source SuDS features (i.e. permeable paving car parks and driveways) would likely be privately managed and maintained. The strategic SuDS features, i.e. basins and swales would be managed by a private management company, to ensure they remain fit for purpose and function appropriately. Exact maintenance responsibilities would be confirmed at a later stage, with a potential management company/operator appointed post-planning".* An outline SuDS maintenance schedule is set out at Section 4.43 (Table 7).

3.2.4 Accordingly, the assessment demonstrates that the SuDS will effectively treat pollutants arising from surface water run-off, to the point where there will no change in the quality of water entering the receiving waterbody.

3.3 Reflection of light and noise by SuDS

3.3.1 In more general terms the Biodiversity Officer refers to the suitability of SuDS within the buffer zone, commenting that "*While SUDS can provide wetland habitat they do not provide sufficient buffer habitat for ancient woodland and waterbodies reflect light and noise, indirect impacts to AW; the majority of SUDS proposed are between road and AW where such impacts would be frequent onsite (e.g. vehicle movements)."*

3.3.2 In term of the potential for SuDS to reflect light and noise, this is a comment that we have not encountered before and we note that this is not raised by the Natural England/Forestry

[2] CIRIA, 2015. The SuDS Manual.

Commission standing advice. In contrast and their inclusion of 'wetlands' within the standing advice strongly suggest that they do not perceive this as a significant factor.

3.3.3 In any event, it should be noted that the SuDS features will be empty for the majority of the time, and that the grass substrate forming the base, or indeed the emergent wetland vegetation around the edges, would not be reflective.

3.3.4 Accordingly, light and noise reflection issues (should they exist) are not considered to lead to any adverse effects on ancient woodland.

3.4 Proposed Use of Directional Drilling under and into Ancient Woodland

3.4.1 The Biodiversity Officer states that *"At 11 locations the SUDS are proposed to have outflows directionally drilled underground through AW, emerging in AW by the ghyll streams. This will cause direct damage to AW and AW habitat/species where drilled pipes emerge through AW soils, levelling and citing proposed headwalls and ongoing impacts through proposed permanent citing of what is described as ground-bearing, prefabricated headwalls".*

3.4.2 In making these observations, we would provide assurance to the Biodiversity Officer that a great deal of survey, investigation and careful engineering work (of which he may be unaware) has informed the SuDS design and in particular their outflow locations within ghylls.

3.4.3 As the Biodiversity Officer identifies, there are 11 locations where SUDs will discharge into watercourses located within Ancient Woodland (8 points into the watercourse at Longwood Gill, and a further 3 to Shermanreed Wood). The proposed SuDS features have been carefully positioned to allow inflow into the woodland ghylls in a controlled manner, with inflows making best use of existing flank incision features (natural channels entering the main ghyll) where these exist[3]. This will minimise the amount of pipework to be installed using directional drill. Pipe emergence points and headwall features would have a negligible effect on the woodland.

3.4.4 The use of such technology to avoid ancient woodland deterioration has been endorsed by Natural England's national ancient woodland specialist (see Appendix 1 which is an extract from Natural England's advice to an appeal that was allowed ref. 'Land Between Junctions 5 and 6 of the M42 Solihull' – PINS ref. 3275290). Indeed, the use of directional drilling for minimal impact installation of services in proximity to trees is a well-established approach, and is recommended by BS5837:2012 clause 7, Demolition and construction in proximity to trees.

3.4.5 Once the pipe is in place and pushed through to the existing watercourse, a prefabricated, lightweight headwall will be placed over the pipe end. At most, this might require fixing in place by four road pins (or similar). However, depending on the microtopography at the precise location of the headwall, even this could be unnecessary. The unit can be carried by hand and lifted into place. There will be no excavation required to the surrounding ground meaning there will be no disturbance to the woodland soils. The appeal scheme referred to above, and specifically the ancient woodland drainage detail endorsed by Natural England (see Appendix 1), also required headwall formation within the ancient woodland to which it related.

3.4.6 The Biodiversity Officer comments on the possibility that complications could be encountered during the installation of the directional drilled sections. "*Whilst bore-hole surveying has been undertaken on the site, for assessing soakaway capabilities of the site, this is at sporadic locations and it is understood such proposed directional drilling can be prevented by soil and*

[3] See Flood Risk Assessment. May 2022

rock composition on proposed routes, for example seams of sand causing drilling to change direction or be aborted; it is noted such geology is present very near and potentially on the site. There is also likelihood that one or more of the proposed directionally drillings will meet complication and not able to be completed or damage AW habitat, soils or tree roots in the process*".*

3.4.7 This is a technical engineering point which is unlikely to manifest itself with the use of good practice. Should such complications be encountered, these would be detected by the telemetry system which monitors the position of the drill head. If the pilot bore were to detect problems, an alternative route could be selected or alternative drill heads or equipment utilised. If the drill head becomes stuck or is heading to the surface on an adverse trajectory, that current drill would be aborted, the drill head and associated equipment abandoned, and a re-drill carried out. This would ensure that damage to woodland soils is avoided and as such there would be no deterioration as defined under paragraph 180c of the NPPF.

3.4.8 In light of the proposed technical solution being BS5837 compliant and considered fit for purpose by Natural England, it is considered that this identical approach should be considered equally acceptable by WDC. The applicant accepts that the installation would need to be undertaken with care according to a detailed and approved method statement, and we assume that a planning condition requiring this would be attached to any grant of consent.

3.5 Potential for Change in Hydrological Regime and Erosion

3.5.1 The Biodiversity Officer comments as follows: *"The proposed development would significantly increase hard surfaces on the site leading to a likelihood of increased water flow of, potentially contaminated surface water run-off into AW. The SUDS outflows are proposed to be concentrated at 11 points within AW where changes in hydrology will likely occur with increased localised flow rates and increased localised erosion of AW habitat within AW ghylls. Currently the drainage conditions onsite consist of a large expanse of grassland, which provides soakaway outside of the AW and distribute residual amounts of water widely into the AW, maintaining slow water flow and negating erosion. It is reasoned the development would not mimic the existing hydrological regime as water outflows would be concentrated AW watercourses through drainage pipes; such piping of water may would also not act as current processes of slowing water flow down to prevent erosion and silt deposition within AW."*

3.5.2 In raising this comment, we would again provide assurance to the Biodiversity Officer that the design work undertaken on site has been informed by detailed survey and investigation (of which he is perhaps unaware). The resulting engineering solution has been carefully developed with the project ecologists and arboriculturalists to ensure that the potential effects raised by the officer do not arise. In particular:

i) "potentially contaminated surface water run-off" – this would be avoided by the use of SuDS designed to the appropriate pollution treatment indexes (see above);

ii) "increased localised flow rates and increased localised erosion of AW habitat within AW ghylls" – these would be avoided as the SuDS ensure that water discharge is attenuated to greenfield run off rates;

iii) "the development would not mimic the existing hydrological regime as water outflows would be concentrated" – the existing flow paths of water into the AW have been mapped. These flow paths are then replicated by the use of 11 in-flow points to the ghylls (rather than these being reduced to a smaller number which would provide a simpler engineering solution). Accordingly, the existing hydrological regime is fully maintained. Any very minor overland flows entering the gyylls between the primary

inflow points will be maintained by the presence of the buffer along the entirety of the margin of the AW.

3.6 Size of buffer zone

3.6.1 The Biodiversity officer sets out that *"The proposed development includes and has a large interface with AW. Natural England Standing Advice states the proposal should have a buffer zone of at least 15 metres….With such a large interface with AW it would be expected that buffer zones would be greater, to demonstrate no direct or indirect impacts, degradation or loss".*

3.6.2 In considering this matter, we would highlight that reference to Natural England's standing advice sets out that:

"For ancient woodlands, the proposal should have a buffer zone of at least 15 metres from the boundary of the woodland to avoid root damage (known as the root protection area). Where assessment shows other impacts are likely to extend beyond this distance, the proposal is likely to need a larger buffer zone. For example, the effect of air pollution from development that results in a significant increase in traffic".

3.6.3 The above discussion has demonstrated that adverse hydrological effects on the woodland are avoided through the use of carefully designed engineering SuDS proposals. Similarly, reference to the project EIA finds that no adverse effects are likely to extend beyond the proposed 15m buffer distance such as air quality. Recreational effects are discussed in the project EIA and are well catered for by the site's extensive open space provision, while the surrounding area is very well wooded. Accordingly, it is considered that there is no requirement for the buffer to be extended to a distance beyond 15m in width.

3.6.4 In any event a review of the site masterplan finds that the proposed buffer considerably exceeds 15m in a number of locations, such as along much of the site's southern boundary with Lake Wood as well as at other points of development interface with Shermanreed and Longwood Gill.

4 Installation, Lighting and Access through Fir Tree Grove Ancient Woodland

4.1 The principle of the use of boardwalks

4.1.1 The Biodiversity officer comments that the proposed boardwalk at Fir Tree Grove "*will cause direct and indirect impacts to the ancient woodland, AW loss and degradation:….. direct impact to AW through installation of circa 95 upright supports into AW soils; preventing and reducing light to the woodland floor, impacting ecology, eradicating existing species and preventing natural AW regeneration and growth; increase lighting levels (see below), and; increased noise and disturbance through increased access*".

4.1.2 In making these comments the Biodiversity Officer may not be familiar that boardwalks are a well-established response to the desire to protect against ground damage and are widely used and/ or recommended by conservation bodies including the Woodland Trust, various Wildlife Trusts, the National Trust, the Royal Botanic Gardens at Kew, Natural Resources Wales and Natural England.

4.1.3 In regard to the latter body, the Biodiversity Officer's comments are in contrast with those of Natural England on this specific site, as set out in their consultation response dated 27 September 2022. This states that *"While unsurfaced footpaths are preferred for their semi-natural feel, consideration needs to be made to ensure that they are usable throughout the whole year, particularly through woodland areas as relying on management inspection may not always be sufficient depending on the seasonal changes in the level of water present throughout the site. This is particularly relevant for routes that cross or are near to water-courses/ponds, which may require boardwalks."* We therefore consider that it is appropriate to defer to Natural England's clear acceptance of (and indeed preference for) the use of boardwalks within an Ancient Woodland setting.

4.1.4 Natural England's comments are aligned with our view as presented in the material submitted within the application (Sylvan Technical Briefing Note 03: Downlands & Fir Tree Grove – Assessment of Ancient Woodland and proposed boardwalk – see copy at Appendix 2) which provides examples of the use of boardwalks in nature reserves and elsewhere.

4.2 Lighting and Access through Fir Tree Grove

4.2.1 In terms of the other points raised by the Biodiversity Officer, these are also addressed in Technical Briefing Note 03, and are summarised below:

i) Installation of Boardwalk Supports - The chosen method (stainless steel needle screw piles) for installation of the wooden supports will have a negligible ground footprint and are non-intrusive and will not result in any loss of ancient woodland.

ii) Increased Noise and Disturbance - The boardwalk will include handrails on either side, of sufficient height to prevent pedestrians from leaving the boardwalk, and causing effects such as tramping or disturbance. The entire woodland area will also be fenced off from public access around the perimeter. As such, there are no anticipated effects from disturbance.

iii) Lighting – The Biodiversity Officer comments *that "Installation of 20 lighting units are proposed along the boardwalk length within Fir Tree Grove woodland, AW. The submitted lux lighting plan shows these will emit between 5 lux at these 20 locations. This is unacceptable and will materially impact ancient woodland ecology; lighting should be restricted to outside of AWs and AW buffer zones"*. We can provide assurance to the Biodiversity Officer that considerable work has been undertaken to design a lighting solution that is sensitive to its woodland setting and illuminates no more than the board walk route. This serves to contain the illuminated zone to a narrow corridor and in turn safeguards wildlife within the wider woodland. Importantly this design concept also provides at all times a continuous dark canopy linkage above the board walk so as to not impede wildlife movement. Further the lighting design utilises motion activated sensors so that illumination is only activated as required when a board walk user approaches. Illumination will mostly only be necessary in the winter months when nocturnal wildlife is predominantly hibernating and so is unaffected. Lighting levels have been modelled in detail in both the horizontal and vertical plane and have been designed to minimise spill. The Lighting Impacts Assessment (ref. The Lighting Bee, May 2022) which contains these results has been presented with the application. This report concludes that *"when considering the boardwalk through Fir Tree Grove, light spill can be well contained, with levels of light spill horizontally at ground level not exceeding 0.2 lux outside of the boardwalk, and levels vertically being contained within 1.2m either side of the boardwalk".* 0.2 lux is an

extremely low level (e.g. equivalent to moonlight) which the Biodiversity Officer overlooks in his response which quotes a 5 lux figure only.

iv) Loss of Individual Trees – The Biodiversity Officer suggests that the loss of individual trees (calculated to be 20) would constitute 'deterioration of habitat'. The potential loss and deterioration effects of the removals of individual trees have been previously addressed in the Fir Tree Grove Technical Note (see Appendix 2). As per Section 6.1 of the note: *"Woodlands have been managed over the centuries for their timber crop and forest products. As part of this management a regular cycle of felling (harvesting) and replanting of trees has taken place. Therefore, felling of trees does not constitute loss of ancient woodland as the interests of the woodlands are maintained within its soils"*. As such, the tree removals would not lead to loss of ancient woodland and as such no deterioration effects arise.

5 Access to Ancient Woodland, Irreplaceable Habitat

5.1 Access to the woodland

5.1.1 The Biodiversity officer comments on the potential for increased disturbance from proposed access into Ancient Woodland. "*There is no current public rights of way on the site. The application proposes circa 780 metres of footpath in AW. This will cause impacts upon the ancient woodland and an increase of damage to habitat including: trampling of plants and erosion of soil by people accessing AW; increasing disturbance to wildlife such as noise from additional people and traffic; increasing the amount of pollution including pet faeces and rubbish, and; increasing the risk of damage to people and property by falling branches or trees requiring tree management or removal causing habitat deterioration"*.

5.1.2 The government policy statement on Ancient Woodland is Keepers of Time[4] (updated 2022). This encourages public access to ancient woodland and sets out that "*Many ancient woodlands provide public access, allowing people to make important contact with nature that helps to promote interest in the protection of these habitats, while delivering many health and wellbeing benefits. We encourage the responsible use of these habitats, especially those woodlands close to where people live"*. It also recognises that in some instances access needs to be managed.

5.1.3 We can provide assurance to the Biodiversity Officer that detailed work has been carried out to define the sensitivity of the woodland and that as a result of this work areas of the woodland (Longwood Gill and part of Shermanreed Gill) have been omitted from the SANG.

5.1.4 We would also highlight that Natural England in their consultation response dated 27 September 2022 also have no in-principle objection with ancient woodland being utilised as SANGS. It is true that there are no public rights of way within the site, but the Biodiversity Officer does not acknowledge that there is an existing low level of uncontrolled informal access, with pedestrians using existing paths, both within and outside the Ancient Woodland areas. There are no fences or other features in place to prevent the formation of new paths, and access into the woodland areas themselves is unrestricted. However, despite this position no material damage to the woodland has been observed.

5.1.5 Existing informal paths have been utilised wherever possible in the design of the SANG (an account of existing paths is provided within the SANG and Woodland Management Plan), which will minimise the possibility of additional wear. Additional fencing has been proposed

[4] https://www.gov.uk/government/publications/keepers-of-time-ancient-and-native-woodland-and-trees-policy-in-england

to separate the woodland from the adjacent residential development and the open parts of the SANG.

5.1.6 The Biodiversity Officer has commented that the "*loose log edging lined with brash, approx. 0.5m high*" which is proposed would be "*ineffective to limit access to ancient woodland where no current access exists*", yet he provides no alternative proposal. It is noted that contrary to the comment from the Biodiversity Officer that 'no current access exists', there is in fact a low level of informal access at the present time. It is considered that the current proposal is sufficient, proportionate and in keeping with the woodland, but the applicant would be willing to revisit this proposal, with an alternative being a fenced corridor through ancient woodland where these form part of the SANG path network. However, this would be a matter for discussion with Natural England.

5.1.7 In addition, it is highlighted that a very large provision of non-wooded open space is put forward as part of the application. This is a considerable resource which will effectively serve to relieve pressure on the woodland, significantly decreasing woodland usage over a typical development design which would not provide such a large quantum of open space.

5.1.8 Accordingly, with the woodland visitor access management measures and active conservation management in place, alongside the large provision of non-wooded open space, it is considered that no deterioration effects on ancient woodland would arise.

5.2 Proposed Emergency Access

5.2.1 The Biodiversity Officer has commented that *"The proposed emergency access to the site from the A22 is through a narrow strip of woodland between two areas of AW. No buffer zone is proposed. It is unclear how access can be achieved for large vehicle visibility and turning without direct impacts and loss of AW".*

5.2.2 We refer the Biodiversity Officer to the highways designs. These have been drawn up by project transport engineers. Construction would take place using a specialist method statement in the vicinity of the woodland so as to ensure that the construction corridor is limited to the footprint of the highway in this location. This proposed mitigation is set out in paragraph 7.165 of the ES Biodiversity Chapter, whilst paragraph 5.28 of the ES Construction Chapter sets out that a Construction Environmental Management Plan (CEMP) would be prepared. This document would include details of these special construction methods, and how they would be implemented. It is anticipated that this requirement would be secured by way of a planning condition.

5.2.3 In terms of buffers zones, these are required where effects could occur that cannot be mitigated by other means. Examples include the dumping of garden waste, escape on non-native species and informal garden extensions or informal accesses being created into ancient woodland. These effects could occur where housing is located adjacent to ancient woodland (and so require buffering) but do not arise from the emergency access proposal. Accordingly, no buffer is required in this instance.

5.2.4 Accordingly, no loss or indirect effects would occur in ancient woodland.

6 Biodiversity Net-Gain/Loss & SANGS

6.1 Biodiversity Net-Gain/Loss

6.1.1 The Biodiversity Officer comments as follows:

"A biodiversity net-gain (BNG) has been submitted with the application. This proposes a BNG of 42.33% for habitat units and estimated 86.41% for hedgerow units. The assessment states all created habitats will be made into 'good condition' significantly uplifting BNG calculations; this is deemed as unrealistic and unachievable. Post development, habitats would be subject to increased access, disturbance, noise, littering, fly-tipping & garden encroachment issues, roadside habitat parking, lighting and trampling & compaction and nutrient input through pet faeces and pet predation of wildlife. Habitats adjoining proposed/retained woodland and scrub such as proposed good condition wildflower grassland would also be subject to heavy shading, significant leaf litter and scrub encroachment."

6.1.2 The Biodiversity Officer's concerns are noted but we would highlight that when forming a judgment it is also necessary to take account of a range of additional factors (which appear to have been overlooked) including:

a) the existing condition of the habitats and in the case of the woodland its declining value;

b) the significant benefits that arise from the instigation of positive conservation management;

c) that positive controls will be in place to manage any development related effects;

d) the points raised are not tied to the Biodiversity Metric habitat condition criteria which do not include many of the factors cited;

e) how the habitats can achieve the proposed condition is set out at within the Biodiversity Net Gain Assessment (June 2022) which informs the application;

f) that unlike the Officer states, the proposed condition of some of the woodland areas in the Metric is in fact coded to 'moderate' (not good) condition, and

g) that these benefits and management are assured for the life of the development i.e. in perpetuity. This represents a very significant conservation benefit over that which is modelled in the Metric, which assumes a benefit duration of only 30 years.

6.1.3 Bringing the habitats and especially the woodland into favourable conservation management offers very real opportunities to improve their biodiversity value, and management activities have been selected to achieve these targets. For instance, large parts of the woodland are lacking in structure, which will be improved through selective thinning and planting with understory species, whilst the amount of deadwood will be increased by creating habitat piles. Invasive species (which are frequent throughout the woodland) will be removed and additional fencing will reduce browsing pressure. All of these actions will have a beneficial effect on the condition assessment in the post-development scenario which will allow it to reach 'good' condition. Of the negative factors cited by the Biodiversity Officer, many do not form the basis of the Metric condition assessment e.g. noise levels and disturbance, but in any event these will be managed to avoid deleterious effects. Others, for instance potential nutrification resulting from dog faeces, will be managed by proposed mitigation measures e.g. dog bins.

6.1.4 We would highlight, that current policy under the NPPF requires a threshold of 'net biodiversity gain' to be met, with a 10% threshold due to become mandatory in late 2023. Accordingly, the proposals significantly exceed current policy requirements in regard to biodiversity.

6.2 BNG & SANGS

6.2.1 The Biodiversity Officer has requested that a separate calculation of the BNG achievable is undertaken for the SANG alone, in line with Natural England SANG guidelines:

"It is recommended that the BNG calculations for the SANG are done separately from the rest of the project calculations, in order to ensure a clear audit trail and allow for simple demonstration of the additional biodiversity unit uplift beyond the minimum SANG requirements. Any additional features provided for BNG purposes should not conflict with the principle purpose of the SANG".

6.2.2 The Biodiversity Officer is in agreement that habitat enhancements within the SANG can be taken account of within the overall BNG assessment but has requested that these are assessed separately. We can advise that in anticipation of this request, this exercise has largely already been undertaken, with the BNG outcome for all of the 'ancient woodland areas' calculated separately, the results of which are presented within the Biodiversity Net Gain assessment (June 2022) which accompanies the application. For the purposes of SANG no woodland habitat enhancement measures would be required, as all SANG measures centred on visitor access management.

Enclosed:

- Appendix 1 - extract from advice from Natural England to appeal at 'Land Between Junctions 5 and 6 of the M42 Solihull' decision PINS ref. 3275290
- Appendix 2 - Sylvan Technical Briefing Note 03: Downlands & Fir Tree Grove – Assessment of Ancient Woodland and proposed boardwalk

Appendix 1:

Extract from appeal decision PINS ref. 3275290 ‘Land Between Junctions 5 and 6 of the M42 Solihull’

Alistair Baxter

From: Murray, susie <Susan.Murray@naturalengland.org.uk>
Sent: 14 September 2020 09:41
To: Alistair Baxter
Cc: Osborne, Lawrence (Places Directorate - Solihull MBC)
Subject: PL/2015/51409/PPOL Proposed MSA (M42 Solihull) - Horizontal Directional Drilling – NE response
Attachments: PL/2015/51409/PPOL Proposed MSA; FLAC 38-1002 DIRECTIONAL DRILLING NOTE_ISSUE 310720.pdf

Dear Alistair
Cc Lawrence

PL/2015/51409/PPOL Proposed MSA (M42 Solihull)
Horizontal Directional Drilling – NE response

You will recall Natural England provided a response to the ancient woodland package of information in our email 12 July 2020 (attached). In response to our concerns in respect of horizontal directional drilling, Sylvan provided the above document (attached) 29 July 2020.

Unfortunately, there has been some capacity issues in the woodland team which explains the delay in providing our response. We thank you all for your patience in this regard.

Happily, I can confirm that Natural England has now reviewed the document above and we **confirm we have no concerns as regards the potential impact upon ancient woodland from horizontal directional drilling as we are content this will avoid the rooting zone.**

Our specialist team, however, notes that the area of capture of the watercourse is within the ancient woodland. Therefore, whilst you could argue is already disturbed, risks being further damaged by access of personnel and plant leading to vegetation loss and soil compaction. **We ask the council satisfy itself that this is mitigated appropriately by the CEMP.**

Our NE specialist team also noted that the proposed additional stream diversion underground needs a clear rational as it goes against EA policy not to culvert watercourses. Undeniably, this represents an extended length of culvert which presents an additional barrier to any fauna and reduces habitat connectivity. We consider this may represent a missed opportunity for any net gain by increased length of open water course (within a woodland habitat) and flood attenuation.

We hope you find the above helpful.

Many thanks,

Mrs Susie Murray
Lead Adviser
West Midlands Area Team (East) – Planning
Natural England
M: 07920 594142
susan.murray@naturalengland.org.uk

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www.gov.uk/natural-england



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Appendix 2:

Sylvan Technical Briefing Note 03: Downlands & Fir Tree Grove – Assessment of Ancient Woodland and proposed boardwalk

Technical Briefing Note

Project: Downlands, Uckfield

Technical Briefing Note 03: Downlands & Fir Tree Grove – Assessment of Ancient Woodland and proposed boardwalk

Date: 28 January 2022

1. Introduction to Downlands site

1.1. The Downlands Farm development opportunity constitutes a proposal for 430 residential dwellings, together with associated parking, infrastructure, landscaping and access. Public Open Space is proposed including Sustainable Alternative Natural Greenspace (SANG), with these areas to be the subject of a forthcoming detailed planning application. A plan showing those parts of the site which will be subject to Outline and Detailed planning applications, is included at Appendix 5719/1.

1.2. Ancient Woodland surrounds much of the site, and parts of the SANG make use of existing woodland paths through such Ancient Woodland. The Ancient Woodland is not currently under management and as such is largely in decline alongside its associated biodiversity. As such the proposals represent a significant opportunity to arrest and reverse the decline of the woodland and instigate long term positive conservation management to optimise its biodiversity value over the long term. As part of the design, access into the woodland will be sensitively designed so as to ensure that no loss or deterioration of Ancient Woodland will occur. In this regard, key principles which will be followed include:

- The provision of 15m buffer zones around Ancient Woodland areas, where they abut the built development which will be fenced off and enhanced through supplementary planting.
- In some isolated locations, where a 15m buffer zone is not possible, sensitive construction techniques will be used in these instances to ensure that there is no loss of deterioration of Ancient Woodland. These instances are limited to the proposed emergency access to the A22, and to a proposed pedestrian/cycle link at Fir Tree Grove, and to the paths forming part of the SANG.
- The SANG will deliver high quality alternative natural greenspace in accordance with the requirements of the Ashdown Forest Special Protection Area (SPA), containing a wide range of habitats and circular path of at least 2.3km length.
- The SANG will include sensitive access management mitigation measures to ensure that any potential deterioration of ancient woodland from footfall is avoided, for example through provision of appropriate signage, the targeted use of dog-proof fencing, the targeted use of naturalistic barriers formed from natural materials (such

as brash cut from woodland management operations) so as to direct footfall away from sensitive locations, the use of localised surfacing as needed etc.

- The potential minor effects of littering will be managed through the provision of litter bins and through regular warden patrols.
- All woodland within the site (both those areas included in the SANG, and outside it, including Ancient Woodland) will be brought into favourable conservation management providing significant net benefits in terms of the woodland and associated flora and fauna. The woodland is currently unmanaged and in a declining condition.
- Potential water quality effects to ancient woodland within the ghyll woodlands within the site have also been avoided by the development of a drainage strategy which carefully manages the quality and quantity of water discharged into them so that the existing regime is maintained.
- We are currently engaging with Natural England through their DAS service so as to ensure they have fed into the SANG design.

1.3. Further details of the management proposals will set out in a combined SANG and Woodland Management Plan.

2. Fir Tree Grove Woodland and access proposals

2.1. The remainder of this note sets out a review and assessment of the potential effects on Ancient Woodland at Fir Tree Grove, in the south-east corner of the site, which has been subject to recent consultation with Wealden District Council, and where further information has been requested. Further details are provided below of how the proposals will avoid the loss and deterioration of Ancient Woodland at this location.

2.2. A pedestrian and cycle link is proposed through Fir Tree Grove to enhance the sustainability of the proposed development site at Downlands. Fir Tree Grove is listed as ancient within the ancient woodland inventory maintained by Natural England (see Figure 1). Wealden District Council has requested further information in correspondence dated 22 December 2021 in regard to the proposal, in particular in relation to the following queries:

a) How to avoid adverse impacts on the woodland – littering, wider public access, fires, etc?
b) Whilst it is noted that the soil would be retained (with the exception of the boardwalk foundations), would this not be significantly impacted by permanent shading?
c) A large number of localised excavations for the boardwalk supports are required which would lead to loss of soils alongside the loss of some 37 trees. How can this constitute no loss of ancient woodland?
d) Would the case be better described as one of acceptance that there would be some localised impacts, but that these would be more than offset by improvements to ancient woodland across the site as a whole?

2.3. The purpose of this briefing note is to set out the ecological and arboricultural work undertaken to date in respect of Fir Tree Grove and respond to the queries raised by the Council.

3. Fir Tree Grove Woodland baseline

3.1. Fir Tree Grove has been subject to a preliminary ecological survey and a full tree survey, the results of which are set out in Appendices 5719/2 and 5719/3 respectively. Particular attention was paid to the characteristics of the woodland and its ground flora, including the presence of

ancient woodland vascular plants (ancient woodland indicator species).

3.2. The woodland presently forms part of the garden associated with Chicory Cottage, with the garden influence extending into those parts of the woodland closest to the house and adjacent to Rocks Road, which bounds the woodland to the south (i.e. from west of the Chicory access). Large sandstone rock outcrops are present in part along the boundary with Rocks Road and around the house while a large pond is present in the north-west, the majority of which lies offsite.

Figure 1 – site location. The vertical hatch represents ancient woodland



3.3. A mature mixed woodland canopy is present with frequent Scot's Pine *Pinus sylvestris* (non-native in the south of England) alongside Oak *Quercus robur* and Ash *Fraxinus excelsior*, much of which is experiencing Ash dieback disease (*Hymenoscyphus fraxineus*). Non-native Sycamore *Acer pseudoplatanus* is frequent especially in the vicinity of the house. The understorey is overly sparse across the majority of the woodland save for along its southern boundary where it is heavily invaded by non-native Cherry Laurel *Prunus laurocerasus*.

3.4. The woodland ground flora is locally suppressed by needle drop from the Pines, where present, while elsewhere a carpet of Bluebell *Hyacinthoides non-scripta* is present across large parts of the woodland, alongside a number of other ancient woodland indicator species. Bracken *Pteridium aquilinum* is invading locally in the vicinity of the house which is suppressing the ground flora.

3.5. Accordingly, the woodland is seen to be subject to neglect, in poor condition and declining with increasing invasion of non-native species (e.g. either Cherry Laurel or other undesirable species such as Sycamore and Bracken. This position is perhaps unsurprising as the woodland effectively forms an extension of the garden of Chicory Cottage and is not subject to any apparent sylviculture.

3.6. However, what is not well recognised is that the woodland's poor condition is also the position of the majority of ancient woodland in England, as following a decline in the demand for forest products in the 20th century woodland fell generally into neglect and without management their biodiversity interests have similarly significantly declined. This is reflected in the 'State of the

UK's Woods[1]' report by the Woodland Trust in 2021 which records that only 7% of Britain's native woodlands are currently in good ecological condition.

3.7. As a result, the restoration of Britain's woodlands is seen as a nature conservation priority, with the opportunity being time limited as woodland seed banks are not long lived, typically with a 40 – 50 year longevity before these significantly degrade. In other words, if a situation of neglect is allowed to persist for several decades, the resulting degradation becomes essentially irreversible. This is particularly the case with ancient woodlands: these are valuable precisely because of historic sylvicultural practices, the permanent cessation of which hazards the loss of those circumstances which confer their special biodiversity value.

4. NPPF Policy Protection for Ancient Woodland

4.1. Paragraph 180c of the NPPF:2021 sets out the policy protection afforded to ancient woodland, namely:

"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"

4.2. The term "wholly exceptional reasons" is explained in Footnote 63, as meaning clear excess of public benefit over harm.

4.3. It is apparent that protection is centred on 'loss' and 'deterioration' of ancient woodland, which are quite separate outcomes and are treated as such by Natural England and the Forestry Commission in their jointly published Standing Advice[2]. The proposals for the boardwalk pedestrian / cycle route are discussed in the context of these tests below.

<u>Loss of Ancient Woodland</u>

5. Loss – Tracks and pathways within ancient woodland

5.1. The publication the 'Ancient Woodland Inventory Handbook for England[3]' sets out how tracks and pathways within ancient woodland are considered by the ancient woodland inventory: *"forest tracks and some water bodies, will typically qualify for inclusion within a woodland polygon or parcel of polygons[4]".*

5.2. In this regard substantial trackways within woods are included within the ancient woodland classification shown within the inventory. A local example of such a trackway is in the Woodland Trust Wood 'Lake Wood' ancient woodland, as shown on the Ordnance Survey Plan at Figure 2 below:

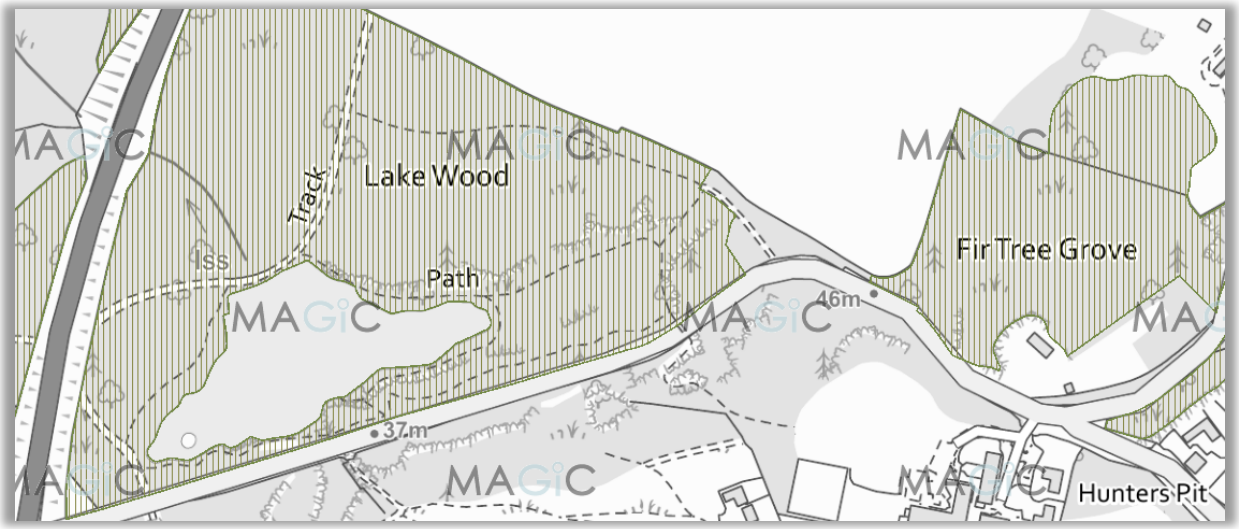
[1] State of the UK's Woods and Trees 2021' Woodland Trust. 2021

[2] *Ancient woodland, ancient trees and veteran trees: advice for making planning decisions* Natural England & Forestry Commission, 14 January 2022 https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions

[3] Ancient Woodland Inventory Handbook for England' Natural England. 2018

[4] Section 3.3.3.4 page 39

Figure 2 – Ordnance survey map extract from MAGIC[5] database showing trackways within Lake Wood. The vertical hatch represents ancient woodland



5.3. Fir Tree Grove is currently lacking in trackways due to the fact that it is in use as a garden extension and forestry works are not undertaken. However, a trackway for forestry operations could be constructed under permitted development rights without the need for planning permission[6]. As set out above this would not be regarded as loss of ancient woodland under the inventory. Such a trackway would have a significantly greater impact on ancient woodland than the current, minimally invasive boardwalk proposal.

6. Loss – Felling of Trees

6.1. Woodlands have been managed over the centuries for their timber crop and forest products. As part of this management a regular cycle of felling (harvesting) and replanting of trees has taken place. Therefore, felling of trees does not constitute loss of ancient woodland as the interests of the woodlands are maintained within its soils. As such the proposed removal of 37 trees of low to moderate quality to facilitate construction and operation of the proposed boardwalk pedestrian / cycle link would not represent loss of ancient woodland.

7. Loss - Construction of the Boardwalk

7.1. A boardwalk is proposed through Fir Tree Grove. While as set out above at section 4, the formation of an at grade trackway through the woodland would not be classified as 'loss' under the inventory, the promoter is sensitive to the presence of ancient woodland and Sylvan has advised that a lower impact alternative to an at grade track is available that would also lead to no loss of ancient woodland, namely a boardwalk.

7.2. A boardwalk would elevate the proposed pedestrian/cycleway off the ground and in doing so fully preserve the woodland soils beneath it. Construction of the supports would be using stainless-steel screw piles that require no excavation of soils. This light touch approach of pathway construction using a boardwalk is a well recognised solution to access formation through sensitive woodlands and as a result its use is commonplace in nature reserves.

[5] Multi Agency Geographic Information for the Countryside database (MAGIC)
[6] Details are contained in Part 7 (Forestry Buildings and Operations) of the General Permitted Development Order 1995 (GPDO) https://www.legislation.gov.uk/uksi/1995/418/schedule/2/part/7/made

7.3. A number of examples of boardwalks are shown at Appendix 5719/4.

7.4. A preliminary indicative route alignment has been investigated for the boardwalk at Fir Tree Grove, on which the initial assessment has been based (this is shown at Appendix 5719/3), and which has been used as a basis for the calculation of tree removals, and to provide a specific example of a potential route for the assessment of effects to Ancient Woodland. The exact alignment of the boardwalk and technical details will be subject to further refinement – for instance, to follow the most optimal route with regards to the topography. As such, the current design should be treated as indicative and an example of a possible alignment so as to illustrate the scale and nature of the proposals. This assessment demonstrates that it is entirely feasible to deliver both a pedestrian and cycle link though the woodland, in terms of achieving the design requirements.

7.5. In summary, the proposed pedestrian / cycle route boardwalk would lead to no loss of soils and therefore no loss of ancient woodland.

8. Loss – Conclusion

8.1. The above review has demonstrated that trackways are commonplace in ancient woodland and are seen as integral parts of woodlands generally. No such forestry track is present within Fir Tree Grove due to its use as a garden extension, but one could be formed under permitted development rights. Any felling of trees would not constitute loss of ancient woodland as trees are regularly harvested and re-planted within woodlands with the woodland soils remaining in place. The proposed boardwalk solution would be constructed on screw piles which do not require excavation. Accordingly, its construction would lead to no loss of woodland soils.

8.2. Therefore, it is concluded the proposed boardwalk would lead to no 'loss' of ancient woodland.

Deterioration of Ancient Woodland

9. Deterioration – General Matters

9.1. As noted, Natural England and the Forestry Commission have issued Standing Advice relating to ancient woodland[7]. This sets out their view as to how ancient woodland should be addressed within the planning context.

This advice recommends that the decision maker should apply the "mitigation hierarchy" found at NPPF 180a to a consideration of development proposals, which comprises an approach summarised as avoid => mitigate => compensate => refuse. It appears that the Standing Advice sees this as a parallel cascade of tests to be applied once the wholly exceptional reasons test in NPPF 180c has been passed, and where compensation is held to be suitable (the second test in 180c).

9.2. However, it is the case that the trigger for engagement of the mitigation hierarchy is stated in terms at 180a to be where significant harm to biodiversity would occur. Where such harm would not occur, application of the hierarchy is not required.

9.3. Finally, "deterioration" only occurs where harm plus mitigation leads to a negative outcome:

[7] *Ancient woodland, ancient trees and veteran trees: advice for making planning decisions* Op. cit.

where any harm is fully mitigable, the outcome is neutral with, in consequence, no engagement of 180c.

10. Deterioration – Shading, Lighting, Littering, Wider Public Access, Fires etc

10.1. Potential deterioration effects which *could* (in theory) arise from the formation of the boardwalk are primarily centred on shading of the woodland ground flora beneath the boardwalk. In his regard mitigation will be employed to translocate any notable woodland ground flora species which are present in sporadic locations along the proposed route of the boardwalk (see Appendix 5719/1) e.g. bluebell bulbs, to other areas of Fir Tree Grove currently lacking in ground flora. As such this will ensure there is no loss of woodland ground flora to shading.

10.2. Should there be a need to including lighting for way-finding along the boardwalk this would be designed to be sensitive to its woodland location and to ensure the light splay is contained to the deck of the boardwalk. This could be achieved with solutions such as bollard lighting with back shields, way finding studs or potentially downwards pointing lighting should the final design of the boardwalk include a canopy. This would ensure that no deterioration effects would arise from lighting.

10.3. Potential effects from littering, wider public access and fires can be addressed by controlled access solutions. As a raised surface, the boardwalk will be equipped with side rails and by this means access from it into the woodland will be inherently difficult. Other access concerns can be effectively managed by the use of fencing and signage. Likewise littering is not typically a major issue on routes such as that proposed (perhaps unlike destinations such as Lake Wood which are used for picnicking) while any litter which does arise can be addressed via litter patrols. Similarly, fires are typically not an issue, while in any event these would not cause a threat to the woodland as British woodlands do not burn.

10.4. Other potential deterioration effects set out in Natural England Standing Advice such as damaging or compacting soil around tree roots are avoided by the boardwalk solution.

11. Deterioration – Residual Effects

11.1. The mitigation measures proposed above would ensure that no residual deterioration effects would occur.

11.2. Notwithstanding this, the proposed development would include additional proposals to instigate positive conservation management into Fir Tree Grove. This management would arrest and reverse the current decline of the woodland and significantly enhance its ecological condition. Such management would be centred upon measures such as removal of non-native coniferous elements alongside non-native Sycamore from the woodland canopy and restocking with broadleaf species as required depending on the extent of Ash trees affected by Ash dieback. Specific attention would be paid to the small number of veteran trees present and specific management put in place to extend their lifespan, which otherwise would be foreshortened in the absence of management.

11.3. The removal of non-native species from the understorey would take place which would also be bolstered by native species and/or the instigation of a coppice regime which in turn would promote the proliferation of the ancient woodland ground flora (alongside the control of invasive species e.g. Bracken).

11.4. These conservation measures would restore the woodland for biodiversity and represent a significant net benefit. Importantly, the instigation of these measures would ensure that the time limited opportunity to restore the woodland is realised prior to the non-reversible loss of the existing woodland seedbank.

11.5. Finally, the management of the woodland would be secured in perpetuity (for the life of the development) and represents a further substantial positive benefit, far beyond the provisions required even under the new Environment Act, which requires the delivery of management of Biodiversity Net Gain for 30 years.

12. Deterioration - Conclusion

12.1. In summary, the selection of a minimally invasive boardwalk solution, accompanied by the mitigation measure of ground flora translocation, would ensure that no deterioration effects would occur.

12.2. The implementation of a positive conservation management regime would confer substantial benefits and so would represent a significant gain arising from the proposals overall. On the basis that this benefit will be secured in perpetuity (rather than just the 30 years required under biodiversity net gain), this benefit is of a significant magnitude.

13. Overall Summary and Conclusions

13.1. Fir Tree Grove represents an extension of the garden of Chicory Cottage. It is currently in poor condition suffering from Ash dieback and localised invasion by non-native species such as Scot's Pine, Sycamore and Cherry Laurel. Loss of the woodland to the proposed pedestrian / cycleway is avoided by the use of a light touch boardwalk solution which will elevate the route off of the ground and as such lead to no loss of ancient woodland soils.

13.2. *Potential* deterioration effects arising from the boardwalk solution are limited and include shading of the localised ground flora, lighting and possible woodland access. These effects are readily addressed using standard mitigation measures.

13.3. Positive conservation management to arrest and reverse the current decline of Fir Tree Grove would restore it to a good example of a semi-natural ancient woodland. This represents a significant and lasting positive benefit of the proposals.

13.4. Accordingly, as the proposals fully avoid 'loss' or 'deterioration' of ancient woodland, the tests at NPPF paragraph 180c are not engaged and as such there is no ecological or arboricultural policy impediment to the proposed pedestrian/cycleway solution.

Appendix 5719/1:

Richards Urban Design Plan Ref. 1309.06. Plan Showing boundaries for Outline and Detailed Planning Applications.

Site

DOWNLANDS FARM, UCKFIELD

Drawing

Plan showing boundaries for outline and detailed planning applications

Scale

1:2000@A1

Date

26.11.21

Drawing ref 1309.**06**

KEY

Outline planning application boundary

Land subject to detailed planning application

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Appendix 5719/2:

Sylvan Technical Briefing Note 02: Fir Tree Grove – Preliminary Botanical Survey of Woodland & Proposed Boardwalk Alignment (October 2021)

Technical Briefing Note

Project: Downlands, Uckfield

Technical Briefing Note 02: Fir Tree Grove - Preliminary Botanical Survey of woodland & proposed boardwalk alignment

Date: 14 October 2021

1. Introduction and Background

1.1. Sylvan is commissioned to assess the ecological and arboricultural feasibility of the installation of a boardwalk access through Fire Tree Grove. The woodland is listed as ancient within the ancient woodland inventory maintained by Natural England.

Figure 1 – site location. The vertical hatch represents ancient woodland



1.2. This note sets out the findings from preliminary botanical observations carried out during the field work with an emphasis on recording of woodland ground flora species, including Ancient Woodland Indicator Plants.

The Sylvan brand is a specialist collaboration between Aspect Ecology Ltd (registered number 5648214 – England and Wales) and Forbes Laird Arboricultural Consultancy Ltd (registered number 05253618 – England and Wales)

2. Methodology

2.1. The woodland was surveyed on 13 October 2021 under a Level 2 standard woodland survey methodology[1] and included a preliminary survey of the vascular plant species present within the ground flora. Particular attention was paid to the presence of Ancient Woodland Vascular Plants (AWVPs), alongside other woody ancient woodland indicators (AWIs), as defined within Rose's list for the south-east of England[2]. The survey included a general assessment of the woodland as well as specific point recording along he proposed route of the boardwalk.

2.2. All of the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons. The optimal survey window for ground flora surveys typically lies between April and mid-June and hence the survey work was undertaken outside of this period. However, the work was carried out just outside the core general survey window of April – September and accordingly a representative range of botanical species would be expected to remain visible for recording.

3. Results

3.1. The woodland forms part of the garden associated with Chicory Cottage, with the garden influence extending into the parts of the woodland closest to the house and along Rocks Road. Large sandstone rock outcrops are present in part along the boundary with Rocks Road and around the house while a large pond is present in the north-west, the majority of which lies offsite.

3.2. Fir Tree Grove comprises a mature canopy dominated by Ash (experiencing Ash dieback) with frequent Scots Pine. A number of mature Oaks are present in the vicinity of the house as is Sycamore alongside a veteran Beech and a substantial Monterey Pine.

3.3. The understorey of Fir Tree Grove is sparse to very sparse across the majority of the woodland save for at the boundaries where the density of the understorey increases locally. The western boundary of the woodland with Rocks Road is heavily dominated by Cherry Laurel.

3.4. The ground flora is locally suppressed by needle drop from the Pines where present while elsewhere a carpet of Bluebell is present across large parts of the woodland. Bracken is invading locally in the vicinity of the house.

3.5. There is limited standing or fallen deadwood present save for a small number of notable exceptions, such as that present in the veteran Beech which is largely hollow. No signs of active management of the woodland were recorded.

3.6. A species list is set out below. AWVPs are shown in bold. Other AWIs are shown with an asterisk based on the south-east list as published in The Wildflower Key (Rose 2006).

[1] Woodland Survey Handbook. Kirby & Hall. 2019

[2] Rose F (1999) Indicators of ancient woodland. British Wildlife. Reproduced in Rose F (2006) *The Wildflower Key*.

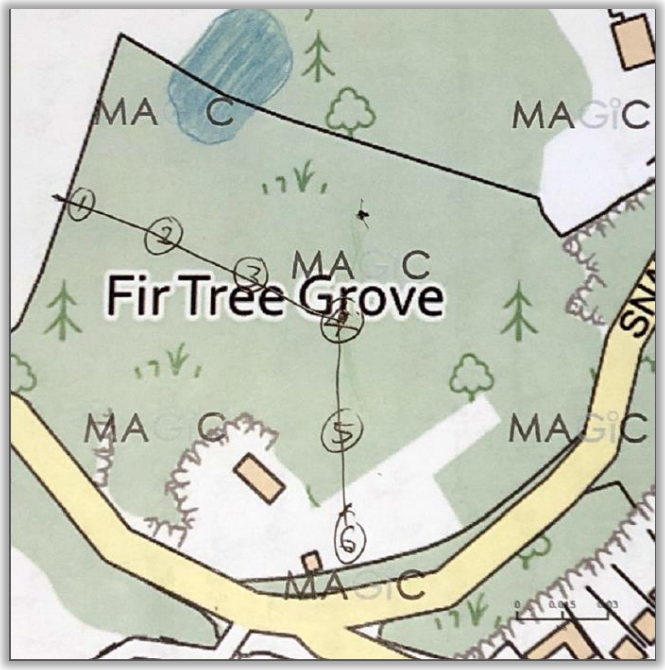
Table 1: list of species list within Tree Grove
DAFOR: D=dominant; A=abundant; F=frequent; O=occasional; R=rare; LF=locally frequent

Botanical species		
English name	***Scientific name***	***DAFOR***
Canopy species		
Sycamore	*Acer pseudoplatanus*	O
Birch	*Betula pendula*	R
Beech	*Fagus sylvatica*	R
Ash	*Fraxinus excelsior*	D
Monteray Pine	*Pinus radiata*	R
Scot's Pine	*Pinus sylvestris*	O
Oak	*Quercus robur*	R
Understorey species		
Sycamore	*Acer pseudoplatanus*	O
Field Maple*	*Acer campestre**	R
Sweet Chestnut	*Castanea sativa*	O
Hazel	*Corylus avellana*	O
Hawthorn	*Crataegus monogyna*	O
Holly*	*Ilex aquifolium**	O
Cherry Laurel	*Prunus laurocerasus* (non-native invasive)	LF
Oak	*Quercus robur*	R
Rowan	*Sorbus aucuparia*	R
Elm	*Ulmus procera*	O
Ground flora species		
Bugle	*Ajuga reptans*	R
Pendulous sedge	***Carex pendula***	**R**
Wood Sedge	***Carex sylvatica***	O
Autumn crocus	*Colchicum autumnale*	R
Scaly Male Fern	***Dryopteris affinis***	**R**
Broad Buckler Fern	*Dryopteris dilatata*	R
Wood Spurge	***Euphorbia amygdaloides***	R
Herb Robert	*Geranium robertianum*	O
Wood Avens	*Geum urbanum*	R
Ground Ivy	*Glechoma hederacea*	O
Ivy	*Hedera helix*	O
Bluebell	***Hyacinthoides non-scripta***	**A**
Chickweed	*Stellaria media*	R
Creeping Jenny	*Lysimachia nummularia*	R
Primrose	***Primula vulgaris***	O
Selfheal	*Prunella vulgaris*	R
Bracken	*Pteridium aquilinum*	O
Bramble	*Rubus fruiticosus agg.*	O
Germander Speedwell	*Veronica chamaedrys*	R
Common Dog-violet	*Viola riviniana*	O

4. Proposed Boardwalk alignment

4.1. An alignment for a proposed boardwalk has been identified taking into account a number of factors. It has been selected to avoid the loss of any mature trees with only small numbers of sub-matures trees required to be removed to facilitate its installation. Six survey points have been recorded along its proposed alignment - see Figure 2.

Figure 2 – survey points along alignment of proposed boardwalk



4.2. The woodland composition is described at each survey point:

Point 1: The entry point to the woodland of the boardwalk. In this location the woodland edge is sparse in nature with a canopy comprised of sub-mature Ash, Scots Pine and Oak. Mature Ash is also present which would be retained. The understorey is sparse and comprises Hawthorn, Hazel, Spindle, Holly and Sweet Chestnut. The ground flora is suppressed in part by needle drop from nearby pines but supports frequent Bramble and occasional Bluebell, Bugle and Selfheal.

Figure 3: Survey point 1



Point 2: The canopy supports sub-mature and mature Ash. The understorey is sparse to absent. Blown in needle drop from pines suppresses the ground flora in part along with dense shade in places. Wood Sedge, Violets, Bugle and Broad Buckler Fern are present.

Figure 4: Survey point 2



Point 3: A clearing with an open woodland canopy and an absence of understorey. The ground flora present includes Bugle, Germander Speedwell, Violets, Primrose and Ground Ivy.

Figure 5: Survey point 3



Point 4: located where the boardwalk turns to the south, crossing a sloping bank. The canopy comprises mature Scots Pine and Ash, with sub-mature Sycamore, Oak and Goat Willow. The understorey is sparse comprising Hazel, Field Maple, Hawthorn and Holly. The ground flora is

locally suppressed by needle drop but elsewhere supports a carpet of Bluebell with Violets and Wood Sedge.

Figure 6: Survey point 4



Point 5: A transition zone from woodland to garden. The canopy is sparse to absent supporting Holly and Silver Birch. Shrub planting is present of non-native Rhododendron, Azalea and Cotoneaster with occasional native Silver Birch. The ground flora is suppressed by the leaf drop from the Rhododendron. A small sandstone rock outcrop is present.

Figure 7: Survey point 5



Point 6: comprises formal lawn

Figure 8: Survey point 6



5. Evaluation

5.1. The well spaced mature trees in the woodland allow a boardwalk to be inserted avoiding the loss of any such trees. Similarly, the sparse nature of the understorey along much of the proposed route of the boardwalk, alongside the crossing of a clearing means that minimal loss of understorey would be required to install the boardwalk. A small number of AWVPs are present which would be affected by shade cast from the proposed route of the boardwalk, with Bluebell being the most prominent of these. However, these localized effects could be offset by translocation of Bluebell bulbs to other areas of the woodland which do not support this species.

6. Summary and Conclusion

6.1. A Level 2 walkover survey of Fir Tree Grove has been carried out. The canopy is dominated by Ash which is considerably affected by Ash dieback disease, while the understorey is sparse in nature. The ground flora supports localised carpets of Bluebell, with only small numbers of other ancient woodland indicators were recorded.

6.2. Accordingly, it is concluded that a sensitively designed boardwalk could be readily accommodated within the woodland.

Appendix 5719/3:

Sylvan Drawing No. 40-1020.03 Fir Tree Grove Boardwalk Route

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Client
Gleeson Strategic Land

Instruction ref.
40-1020

Dwg title
Fir Tree Grove Boardwalk Route

Dwg no.
40-1020.03

Date
15.10.21

Scale
1:500 @ A1

MAGIC Ancient Woodland boundary

AW boundary +15m buffer offset

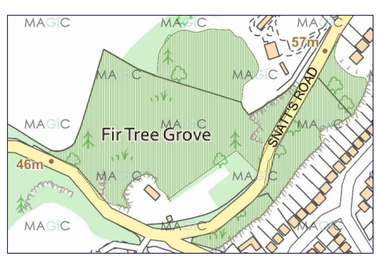
4m wide construction corridor for foot/cycle boardwalk

37no. low/moderate quality trees for removal within & hard by construction corridor

Survey Points SP1

Summary of findings at given Survey Points

Survey Point	Canopy	Understorey	Ground flora
SP1	Sub-mature Ash, Scots Pine, Oak Occasional mature Ash	Sparse, comprising Hawthorn, Hazel, Spindle, Holly, Sweet Chestnut	Suppressed in part by needle drop from nearby pines Frequent Bramble; occasional Bluebell, Bugle, Selfheal
SP2	Mature & sub-mature ash	Sparse to absent	Suppressed by bloum-in needle drop from pines & dense shade Scattered Wood Sedge, Violets, Bugle, Broad Buckler Fern
SP3	Clearing		Bugle, Germander Speedwell, Violets, Primrose, Ground Ivy
SP4	Mature Scots Pine & Ash; sub-mature Sycamore, Oak, Goat Willow	Sparse comprising Hazel, Field Maple, Hauthorn, Holly	Locally suppressed by needle drop but elsewhere supports a carpet of Bluebell, with scattered Violets, Wood Sedge
SP5	Transition zone from woodland to garden. Canopy sparse to absent with occasional Holly, Silver Birch	Non-native Rhododendron, Azalea, Cotoneaster	Suppressed to absence by leaf-drop from Rhododendron, Azalea, and rock outcrop
SP6	Formal lawn		



5m 10m 20m 30m 40m 50m

INTENDED TO BE READ IN COLOUR
CAUTION: THIS DRAWING IS

View NW towards Survey Point 1



View at Survey Point 2, towards SP3



View at Survey Point 5, towards SP6



SP1
SP2
SP3
SP4
SP5
SP6

View at Survey Point 4, down



View at Survey Point 4, up



View NW from Survey Point 6 to SP5, showing 2m gap between rock outcrops (Planing or bridging required)



Appendix 5719/4:

Boardwalk Examples

Appendix 5719/3. Boardwalk Examples

No.	Woodland name and Location	Description	Photograph/s
1	Rockinghill Wood, near East Grinstead, West Sussex (very close to the border of Wealden District) https://www.woodlandtrust.org.uk/visiting-woods/woods/standen/	An ancient woodland owned by the National Trust and promoted by the Woodland Trust forming part of the Standen Estate. A number of waymarked walks are present using well-made paths and boardwalks.	
2	Hollybush Wood, near East Grinstead, West Sussex (very close to the border of Wealden District) https://www.woodlandtrust.org.uk/visiting-woods/woods/hollybush-wood	An ancient woodland owned by the National Trust and promoted by the Woodland Trust. It is accessed via pathways and boardwalks.	https://www.woodlandtrust.org.uk/visiting-woods/woods/hollybush-wood
			
3.	Wykery Copse (Bracknell, Berkshire)	A 3.15-hectare ancient woodland site that is also SSSI managed by Bracknell Forest Council. Extensive wooden boardwalks with handrails provide access through the woodland areas.	

4.	The Mores (Bently, Essex)	Not officially an ancient woodland site, but much of it having semi-natural characteristics. Managed by the woodland trust. Boardwalks used over streams and wet areas. These are noted to funnel visitors through the key sections of woodland to avoid soil damage.	Management Plan Available at https://www.woodlandtrust.org.uk/media/46872/4282-the-mores.pdf
5.	Cuillon Community Woodland (Gortin, Omagh)	Approximately 1ha of community woodland managed by the Woodland Trust, providing informal public access through a combination of hard-core paths and a boardwalk crossing between the 2 sides of a pond.	Management Plan Available at https://www.woodlandtrust.org.uk/media/47478/5361-cullion-community-woodland.pdf
6.	Dingle Local Nature Reserve (Anglesey, Wales)	18 hectares of deciduous woodland, which is largely ancient woodland, owned and managed by the Isle of Anglesey County Council. Includes a 1km long wooden boardwalk.	

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