



National Infrastructure Planning
Temple Quay House
2 The Square
Bristol
BS1 6PN

17th April 2023

Dear Christopher Butler,

Reference: HyNet Carbon Dioxide Pipeline

Objection – impact to ancient woods and trees

As the UK's leading woodland conservation charity, the Woodland Trust aims to protect native woods, trees and their wildlife for the future. We own over 1,000 sites across the UK, covering over 30,000 hectares and we have over 500,000 members and supporters. We are an evidence-led organisation, using existing policy and our conservation and planning expertise to assess the impacts of development on ancient woodland and ancient and veteran trees. Planning responses submitted by the Trust are based on a review of the information provided as part of the application to the Planning Inspectorate.

Impact to ancient woodland and veteran trees

We hold serious concerns with regards to the potential impact to several areas of woodland designated as ancient on Natural Resource Wales's Ancient Woodland Inventory, plus likely loss of up to six veteran trees (T849, T850, T858, T1048, T1056 and T1074) and potential root encroachment to a further seven trees/groups (G573, G623, T628, T631, T827, T857 and T877) as outlined in the Arboricultural Impact Assessment [ref: APP-115]. The ancient woodlands of concern are as follows:

- Unnamed RAWs woodland (grid reference: SJ272674)
- Unnamed ASNW woodland (grid reference: SJ263677)
- Leadbrook Wood WS (grid reference: SJ254699)
- New Inn Brook Wood WS (grid reference: SJ288671)
- a potential area of unmapped ancient woodland at grid reference: SJ2762067143

Ancient Woodland

Natural England and the Forestry Commission, the Government's respective bodies for the natural environment and protecting, expanding and promoting the sustainable management of woodlands, define ancient woodland as follows within their standing advice¹:

"Ancient woodland takes hundreds of years to establish and is defined as an irreplaceable habitat. It is a valuable natural asset important for: wildlife (which include rare and

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

threatened species); soils; carbon capture and storage; contributing to the seed bank and genetic diversity; recreation, health and wellbeing; cultural, historical and landscape value. It has been wooded continuously since at least 1600AD. It includes:

- *Ancient semi-natural woodland [ASNW] mainly made up of trees and shrubs native to the site, usually arising from natural regeneration.*
- *Plantations on ancient woodland sites – [PAWS] replanted with conifer or broadleaved trees that retain ancient woodland features, such as undisturbed soil, ground flora and fungi”*

Natural Resources Wales’s Ancient Woodland Inventory² also places woodland into one of four categories:

- **Ancient Semi-Natural Woodland (ASNW)** – broadleaf woodlands comprising mainly native tree and shrub species which are believed to have been in existence for over 400 years
- **Plantation on Ancient Woodland Sites (PAWS)** – sites which are believed to have been continuously wooded for over 400 years and currently have a canopy cover of more than 50 percent non-native conifer tree species
- **Restored Ancient Woodland Sites (RAWS)** – woodlands which are predominately broadleaf now and are believed to have been continually wooded for over 400 years. These woodlands will have gone through a phase when canopy cover was more than 50% non-native conifer tree species and now have a canopy cover of more than 50 percent broadleaf.
- **Ancient Woodland Site of Unknown Category (AWSU)** – woodlands which may be ASNW, RAWS or PAWS. These areas are predominantly in transition and existing tree cover is described as 'shrubs', 'young trees', 'felled' or 'ground prepared for planting’.

All ancient woodlands come within the definition of priority woodland habitats listed in Section 7 of the Environment Act (Wales). The Environment Act places a duty on public authorities to seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales and take all reasonable steps to maintain and enhance those species and habitats as listed in Section 7.

Veteran Trees

Natural England’s standing advice on veteran trees states that they “*can be individual trees or groups of trees within wood pastures, historic parkland, hedgerows, orchards, parks or other areas. They are often found outside ancient woodlands. They are also irreplaceable habitats. A veteran tree may not be very old, but it has significant decay features, such as branch death and hollowing. These features contribute to its exceptional biodiversity, cultural and heritage value.*” We consider that not all veteran trees are ancient, but all ancient trees are also veteran trees.

English Planning Policy

Paragraph 5.3.14 of the **Overarching National Policy Statement for Energy (EN-1)** states: “*Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost it cannot be recreated. The IPC should not grant development consent for any development that would result in its loss or deterioration unless the benefits (including need) of the development, in that location outweigh the loss of the*

² <https://naturalresources.wales/guidance-and-advice/environmental-topics/woodland-management/woodlands-and-the-environment/ancient-woodland-inventory/?lang=en>

woodland habitat. Aged or ‘veteran’ trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. Where such trees would be affected by development proposals the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons why.”

The **National Planning Policy Framework**, paragraph 180, states: “*When determining planning applications, local planning authorities should apply the following principles:*

c) 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 reasons⁶³ and a suitable compensation strategy exists;”

Further to this, paragraph 174 of the NPPF states the following: “*Planning policies and decisions should contribute to and enhance the natural and local environment by: minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures”*. Where a proposal involves the loss of irreplaceable habitats, such as ancient woodland or veteran trees, net gain for biodiversity cannot be achieved.

Welsh Planning Policy

Welsh Government recognises that areas of ancient woodland are declining and becoming increasingly fragmented and emphasises the importance of conserving ancient woodland and its value as a biodiversity resource through the publication of Planning Policy Wales version 11 (2021) (PPW 11).

In PPW 11, paragraph 6.4.26 states “*Ancient woodland and semi-natural woodlands and individual ancient, veteran and heritage trees are irreplaceable natural resources, and have significant landscape, biodiversity and cultural value. Such trees and woodlands should be afforded protection from development which would result in their loss or deterioration unless there are significant and clearly defined public benefits; this protection should prevent potentially damaging operations and their unnecessary loss. In the case of a site recorded on the Ancient Woodland Inventory, authorities should consider the advice of NRW. Planning authorities should also have regard to the Ancient Tree Inventory.”*

Impacts to Ancient Woodland

The proposed pipeline has the potential to result in significant adverse impacts on ancient woodland through direct loss for construction of the pipeline, and potentially through indirect impacts where construction works occur within close proximity to these habitats.

Three ancient woodlands are located adjacent to the proposed corridor boundary: Leadbrook Wood WS (grid reference: SJ254699), New Inn Brook Wood WS (grid reference: SJ288671) and an area of unnamed ancient woodland at SJ272674. A further area of ancient woodland – an unnamed woodland at SJ263677 – will be subject to a trenchless crossing within the woodland.

We are specifically concerned about the following impacts to ancient woodland from the proposed pipeline route:

- Direct loss of likely unmapped ancient woodland to facilitate the proposed pipeline.
- Permanent fragmentation due to the removal of adjacent semi-natural habitats, such as small wooded areas, hedgerows, individual trees and wetland habitats if continued access to the pipeline once constructed is required.

- Noise and dust pollution impact to woodlands within close proximity of the pipeline installation area.
- Root damage to woodland boundary trees during installation of the pipeline.
- The potential for trampling of sensitive ancient woodland flora and soils if access is required within any ancient woodland.

Natural England and Forestry Commission have identified impacts of development on ancient woodland and ancient and veteran trees within their standing advice (please see the annex at the foot of this document for the full range of impacts outlined). This guidance should be considered Government's position with regards to development impacting ancient woodland, although Natural England and Forestry Commission should still be consulted for specific comment on this application.

In addition, Natural Resources Wales has published standing advice³ which outlines the potential impacts of development on ancient woodland and provides recommendations for their protection.

Mitigation for ancient woodland

Detrimental edge effects have been shown to penetrate woodland causing changes in ancient woodland characteristics that extend up to three times the canopy height in from the forest edges. As such, it is necessary for mitigation to be considered to alleviate such impacts.

Additional mitigation approaches are also outlined in our Planners' Manual⁴; these measures would help ensure that the development meets policy requirement and guidance and include:

- Non-invasive root investigation for ancient trees and protection beyond the limit of the usual investigative tools.
- Retaining and enhancing natural habitats around ancient woodland to improve connectivity with the surrounding landscape.
- Measures to control noise, dust and other forms of water and airborne pollution.
- Implementation of an appropriate monitoring plan to ensure that proposed measures are effective over the long term and accompanied by contingencies should any conservation objectives not be met.

Buffer zones

Buffering ancient woodland can be an ideal mitigation measure as buffer zones can be used to establish distance between the development and habitat, which helps to alleviate harmful impacts, while also creating new areas of habitat around the ancient woodland. This development should allow for a buffer zone of **at least 30 metres** to prevent adverse impacts such as pollution and disturbance and ensure avoidance of root damage. HERAS fencing fitted with acoustic and dust screening measures should be put in place during construction to ensure that the buffer zone does not suffer from encroachment of construction vehicles/stockpiles, and to limit the effects of other indirect impacts.

This is backed up by Natural England and Forestry Commission's standing advice which states that *"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*

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significant increase in traffic.” Further information on buffer zones is outlined in the annex below.

Natural Resources Wales’s standing advice also outlines the following guidance on protection zones: *“A stand-off or protection zone’s purpose is to protect ancient woodland. The size and type of stand-off or protection zone should vary depending on the scale, type and impact of the development. The BS 5837 Tree Survey, PEA and/or EclA assessments should be used to inform the stand-off or protection zone for each individual woodland and veteran and ancient trees. Some zones may only require a root protection area to prevent negative impacts on individual trees or groups of trees, and others are likely to extend further.”*

Trenchless crossings

The Trust understands that an area of ancient woodland is likely to be subject to a trenchless crossing in order to limit the removal of irreplaceable ancient woodland soils during construction. The Trust would primarily advocate for the redirection of any pipeline through ancient woodland areas, however if such works are likely to occur should development consent be granted, then we would appreciate further clarification on the technique and any potential impacts posed.

Veteran Trees

It is essential that no veteran trees are lost as part of the development. The loss of any such trees can have a significant impact on local wildlife, particularly those which depend on the habitat provided by veteran trees. Any loss of veteran trees can also be highly deleterious where there is a wider population of veteran trees within close proximity, which may harbour rare and important species.

Trees are susceptible to change caused by construction/development activity. As outlined in ‘BS5837:2012 - Trees in relation to design, demolition and construction’ (the British Standard for ensuring development works in harmony with trees), construction work often exerts pressures on existing trees, as do changes in their immediate environment following construction of any new infrastructure. Root systems, stems and canopies, all need allowance for future movement and growth, and should be taken into account in all proposed works on the scheme through the incorporation of the measures outlined in the British Standard.

While BS5837 guidelines state that trees should have a root protection area (RPA) of 12 times the stem diameter (capped at 15m), this guidance does recognise that veteran trees need particular care to ensure adequate space is allowed for their long-term retention. It is imperative that Natural England and Forestry Commission’s standing advice on root protection areas for veteran trees is taken into account in planning decisions. This advice states: *“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. Where assessment shows other impacts are likely to extend beyond this distance, the proposal is likely to need a larger buffer zone.”*

Conclusion

Ancient woodland and veteran trees are irreplaceable habitats, once lost they are gone forever. Any development resulting in loss or deterioration of ancient woods and trees must consider all possible measures to ensure avoidance of adverse impact.

If you would like clarification of any of the points raised, please contact us via campaigning@woodlandtrust.org.uk

Yours sincerely,

Nicole Moses
Campaigner – Woods Under Threat
Woods Under Threat Team

Annex 2:

Natural England and Forestry Commission's standing advice:

Ancient woodland, ancient trees and veteran trees: advice for making planning decisions

Direct and indirect effects of development:

Development, including construction and operational activities can affect ancient woodland, ancient and veteran trees, and the wildlife they support on the site or nearby.

Direct effects of development can cause the loss or deterioration of ancient woodland or ancient and veteran trees by:

- *damaging or destroying all or part of them (including their soils, ground flora or fungi)*
- *damaging roots and understorey (all the vegetation under the taller trees)*
- *damaging or compacting soil*
- *damaging functional habitat connections, such as open habitats between the trees in wood pasture and parkland*
- *increasing levels of air and light pollution, noise and vibration*
- *changing the water table or drainage*
- *damaging archaeological features or heritage assets*
- *changing the woodland ecosystem by removing the woodland edge or thinning trees - causing greater wind damage and soil loss*

Indirect effects of development can also cause the loss or deterioration of ancient woodland, ancient and veteran trees by:

- *breaking up or destroying working connections between woodlands, or ancient trees or veteran trees - affecting protected species, such as bats or wood-decay insects*
- *reducing the amount of semi-natural habitats next to ancient woodland that provide important dispersal and feeding habitat for woodland species*
- *reducing the resilience of the woodland or trees and making them more vulnerable to change*
- *increasing the amount of dust, light, water, air and soil pollution*
- *increasing disturbance to wildlife, such as noise from additional people and traffic*
- *increasing damage to habitat, for example trampling of plants and erosion of soil by people accessing the woodland or tree root protection areas*
- *increasing damaging activities like fly-tipping and the impact of domestic pets*
- *increasing the risk of damage to people and property by falling branches or trees requiring tree management that could cause habitat deterioration*
- *changing the landscape character of the area*

Mitigation measures

Mitigation measures will depend on the type of development. They could include:

- *putting up screening barriers to protect ancient woodland or ancient and veteran trees from dust and pollution*
- *measures to reduce noise or light*
- *designing open space to protect ancient or veteran trees*
- *rerouting footpaths and managing vegetation to deflect trampling pressure away from sensitive locations*
- *creating buffer zones*

Use of buffer zones

Buffer zones can protect ancient woodland and individual ancient and veteran trees and provide valuable habitat for woodland wildlife, such as feeding bats and birds. The size and type of buffer zone should vary depending on the:

- *scale and type of development and its effect on ancient woodland, ancient and veteran trees*
- *character of the surrounding area*

For example, larger buffer zones are more likely to be needed if the surrounding area is:

- *less densely wooded*
- *close to residential areas*
- *steeply sloped*

Buffer zone recommendations

Where possible, a buffer zone should:

- *contribute to wider ecological networks*
- *be part of the green infrastructure of the area*

A buffer zone should consist of semi-natural habitats such as:

- *woodland*
- *a mix of scrub, grassland, heathland and wetland*

The proposal should include creating or establishing habitat with local and appropriate native species in the buffer zone.

You should consider if access is appropriate. You can allow access to buffer zones if the habitat is not harmed by trampling.

You should not approve development proposals, including gardens, within a buffer zone.

You should only approve sustainable drainage schemes if:

- *they do not affect root protection areas*
- *any change to the water table does not negatively affect ancient woodland or ancient and veteran trees*