

Avon Valley Woods

(Plan period – 2023 to 2028)



WOODLAND
TRUST

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Introduction to the Woodland Trust Estate

The Woodland Trust owns and cares for well over 1,250 sites covering almost 30,000 hectares (ha) across the UK. This includes more than 4,000ha of ancient semi-natural woodland and almost 4,000ha of non-native plantations on ancient woodland sites and we have created over 5,000ha of new native woodland. We also manage other valuable habitats such as flower-rich grasslands, heaths, ponds/lakes and moorland.

Our Vision is:

“A UK rich in native woods and trees for people and wildlife.”

To realise all the environmental, social and economic benefits woods and trees bring to society, we:

- **Create Woodland** – championing the need to hugely increase the UK’s native woodland and trees.
- **Protect Woodland** – fighting to defend native woodland, especially irreplaceable ancient woodland and veteran trees; there should be no loss of ancient woodland
- **Restore Woodland** – ensuring the sensitive restoration of all damaged ancient woodland and the re-creation of native wooded landscapes.

Management of the Woodland Trust Estate

All our sites have a management plan which is freely accessible via our website

www.woodlandtrust.org.uk

Our woods are managed to the UK Woodland Assurance Standard (UKWAS) and are certified with the Forest Stewardship Council® (FSC®) under licence FSC-C009406 and through independent audit.

The following principles provide an overarching framework to guide the management of all our sites but we recognise that all woods are different and that their management also needs to reflect their local landscape, history and where appropriate support local projects and initiatives.

1. Our woods are managed to maintain their intrinsic key features of value and to reflect those of the surrounding landscape. We intervene in our woods when there is evidence that it is necessary to maintain or improve biodiversity, safety and to further the development of more resilient woods and landscapes.
2. We establish new native woodland for all the positive reasons set out in our Conservation Principles, preferably using natural regeneration but often by planting trees, particularly when there are opportunities for involving people.
3. We provide free public access to woods for quiet, informal recreation and our woods are managed to make them accessible, welcoming and safe. Where possible, we pro-actively engage with people to help them appreciate the value of woods and trees.
4. The long term vision for all our ancient woodland sites is to restore them to predominantly native species composition and semi-natural structure, a vision that equally applies to our secondary woods.
5. Existing semi-natural open ground and freshwater habitats are restored and maintained wherever their management can be sustained and new open ground habitats created where appropriate.
6. The natural and cultural heritage value of sites is taken into account in our management and in particular, our ancient trees are retained for as long as possible.
7. Land and woods can generate income both from the sustainable harvesting of wood products and the delivery of other services. We therefore consider the appropriateness of opportunities to generate income from our Estate to help support our aims.
8. We work with neighbours, local people, organisations and other stakeholders in developing the management of our woods. We recognise the benefits of local community woodland ownership and management. Where appropriate we encourage our woods to be used for local woodland, conservation, education and access initiatives.
9. We use and offer the Estate where appropriate, for the purpose of demonstration, evidence gathering and research associated with the conservation, recreational and sustainable management of woodlands. We maintain a network of sites for long-term monitoring and trials leading to reductions in plastics and pesticides.
10. Any activities we undertake are in line with our wider Conservation Principles, conform to sustainable forest management practices, are appropriate for the site and balanced with our primary objectives of enhancing the biodiversity and recreational value of our woods and the wider landscapes.

The Public Management Plan

This public management plan describes the site and sets out the long term aims for our management and lists the Key Features which drive our management actions. The Key Features are specific to this site – their significance is outlined together with our long, 50 years and beyond, and our short, the next 5 years, term objectives for the management and enhancement of these features. The short term objectives are complemented by an outline Work Programme for the period of this management plan aimed at delivering our management aims.

Detailed compartment descriptions are listed in the appendices which include any major management constraints and designations. Any legally confidential or sensitive species information about this site is not included in this version of the plan.

There is a formal review of this plan every 5 years and we continually monitor our sites to assess the success of our management, therefore this printed version may quickly become out of date, particularly in relation to the planned work programme.

Please either consult The Woodland Trust website

www.woodlandtrust.org.uk

or contact the Woodland Trust

operations@woodlandtrust.org.uk

to confirm details of the current management programme.

A short glossary of technical terms can be found at the end of the plan.

Location and Access

Location maps and directions for how to find and access our woods, including this site, can be found by using the following link to the Woodland Trust web-site which contains information on accessible woodlands across the UK

<https://www.woodlandtrust.org.uk/visiting-woods/find-woods/>

In Scotland access to our sites is in accordance with the Land Reform Act (of Scotland) 2003 and the Scottish Outdoor Access Code.

In England, Wales and NI, with the exception of designated Public Rights of Ways, all routes across our sites are permissive in nature and where we have specific access provision for horse riders and/or cyclists this will be noted in the management plan.

The Management Plan

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GLOSSARY

1. SITE DETAILS

Avon Valley Woods

Location:	Woodleigh Grid reference: SX 74188 49865 OS 1:50,000 Sheet No. 202
Area:	139.42 hectares (344.51 acres)
External Designations:	Ancient Semi Natural Woodland, Ancient Woodland Site, Area of Outstanding Natural Beauty
Internal Designations:	Welcoming Sites Programme

2. SITE DESCRIPTION

The Avon Valley Woods comprise of a 139 hectare complex of five woodlands; Aveton, Bedlime, Titcombe, Woodleigh and Watkins, all straddling the banks of the Avon River and Torr Brook, and are one of the largest contiguous woodland areas within the South Devon AONB. The surrounding landscape is characterised by an exposed farmed plateau of often shallow, well-drained, mildly acidic stony soils punctuated by deep wooded valleys. The South Devon national character area (151) describes the area as “inland undulating uplands” and “river valley slopes and coombes”. The Avon Valley Woods feature a wide diversity of wildlife species and habitats ranging from both dry and wet broadleaf Ancient Semi-Natural Woodland (ASNW), to coniferised Plantation on Ancient Woodland (PAWs), planted broadleaf secondary woodland, heritage variety community orchard and grazed, species-diverse pasture with a network of historic hedgerows. The site is a haven for both people and wildlife in an otherwise predominantly agricultural landscape, and its important conservation value is in part recognised by the County Wildlife Site Status of the ASNW areas.

The woods represent the earliest acquisitions made by Kenneth Watkins, founder of the Woodland Trust and can be considered as the conceptual birthplace of the organisation. The very first wood owned by the Trust was Bedlime which was purchased on the 24th October 1972. At that time the wood had been used widely for pheasant shooting and there was a perceived threat that woodlands within the valley would be felled and converted to conifer as part of the drive by the government policies and forestry practices of the time. These fears provided the initial drive for acquisitions in the valley and the creation of the Woodland Trust. In August 1973, Dartshill Copse (adjoining Bedlime, and now treated as part of Bedlime), Titcombe Wood and Woodleigh Wood were also purchased and added to form the Avon Valley Woods. Aveton wood was later purchased in 1999, and between 2000 and 2004 ‘Watkins Wood’ was created on newly purchased farmland adjacent to Woodleigh Wood, to commemorate the legacy of Kenneth Watkins. Over 50 years since ancient woodland was felled and planted at Aveton Wood, prompting the protection of Bedlime Wood, and the creation of the Woodland Trust, and following over 20 years of ancient woodland restoration efforts, Aveton Wood is now in a stable condition and close to restoration, bringing the story of ancient woodland protection in the Avon Valley full circle.

The entire site is accessible via a 13 kilometre, sinuous network of permissive footpaths and two public rights of way (Woodleigh footpath 2 and Woodleigh bridleway 4), many of which can be rough, steep and wet in places. There is one, circular permissive bridleway in Watkins Wood which links to the PRow. The historic, 12-mile ‘Primrose Line’ Victorian railway (built in 1893) that once traversed the valley but closed in 1963, now forms the basis of a level walking route along the banks of the River Avon and links many of the Avon Valley’s ancient woodlands (Woodleigh, Titcombe and Aveton Woods) together on its route from Loddiswell station in the south to Topsham Bridge in the north. There are two main car parks, Watkins East (W3W///people.backdrop.lengthen) and Watkins West (W3W///deliver.collected.imprinted), just north of Woodleigh which provide dog bin facilities and access to the more recently planted woodland (Watkins Wood), and to the wooded valley below, these latter areas can be challenging to access from the car parks due to steep valley paths that can also be wet in winter. A third car park can be found at Aveton Wood (W3W///joked.gloves.hill), and provides access to the northern end of the site and connects with the public right of way adjacent to the Avon River (Woodleigh Footpath 2), which is liable to seasonal winter flooding, and therefore inaccessible in parts during high river flow events. Bedlime Wood has historically had no formalised public access infrastructure or paths.

3. LONG TERM POLICY

The Ancient Semi-Natural Woodland (ASNW) areas of Bedlime, Titcombe and Woodleigh will be managed through selective interventions to improve ecological condition and develop a biodiverse and thriving native woodland ecosystem with a diverse range of structure, tree species, tree ages and 'rewetted' areas where artificial tributaries will be encouraged with woody debris to follow their own, low-flow pathways, creating more biodiverse wet-woodland habitat. Non-native, 'Invasive' species which threaten the long-term ecological integrity of the ASNW areas such as Laurel, Rhododendron and Himalayan balsam will be eradicated and annually controlled. Tree species which dominate and create undesirable shade conditions for temperate rainforest habitat such as Holly, Beech and Sycamore will be controlled annually, and over time the woodland will be allowed to develop a cycle of natural processes. Deer will be managed within the Avon valley complex to reduce the impact of herbivore browsing on regenerating broadleaf woodland. Large fallen trees will be retained where practical within the Avon River, allowing the flow to begin re-naturalising, and reconnecting with the floodplain areas within Titcombe and some areas of Woodleigh Wood.

The Plantation on Ancient Woodland (PAWs) areas of Aveton Wood will be gradually restored through thinning, in line with the Woodland Trust's approach to PAWs restoration, systematically removing conifers, maintaining 'ecological continuity' and allowing the native, broadleaf habitat to develop through a mixture of assisted tree planting and natural regeneration. A small proportion of large conifer specimens, such as Scots pine or Douglas fir will be retained to support specialist bird species such as Siskin and Goshawk. Existing areas of planted and ASNW broadleaf woodland will undergo selective coppicing and ride management to improve woodland structure for biodiversity, and tributaries will be 're-wetted' through the addition of woody debris to improve the biodiversity value of areas with capacity to create wet woodland.

The planted, secondary broadleaf woodland and open pasture areas of Watkins Wood will be encouraged to develop into a structurally diverse broadleaf woodland, with ride-side coppicing and the grazing of conservation cattle in West Watkins, acting as ecological drivers creating beneficial disturbance to structure, maintaining open areas and improving biodiversity. Deer will also be managed in these areas as necessary. The Torr Brook will undergo targeted natural flood management interventions to reconnect the watercourse with the East Watkins Wood floodplain and wet woodland areas, overtime this will increase the biodiversity, carbon storage and flood water storage capacity of the riparian woodland. The hedgerows within the woodland will be protected and maintained to continue their function as vital connectivity features for species such as Greater Horseshoe Bats. The heritage variety orchard will continue to be managed as a culturally significant community asset.

The Avon Valley Woods as a whole will continue to be a place for both wildlife and people, with a thriving volunteer group, regular community engagement and ensure continued access to a cherished and respected ancient woodland site. Visitor access infrastructure will be sensitively improved and introduced in balance with the Trust's approach on access to ancient woodlands, while maintaining the character and conservation value of the site. Opportunities to host volunteering and education on the site will continue and expand where viable to increase the local communities engagement with the woodland.

4. KEY FEATURES

4.1 f1 Ancient Woodland Site

Description

Ancient Semi Natural Woodland – Bedlime (1a), Titcombe (2a) and Woodleigh (2b) Woods.

These three woodlands run contiguously along the steep eastern side of the river Avon. They are Ancient Semi-Natural Woodlands (ASNWs) with a variety of NVC stand types due to varying soil moisture profiles, with an abundance of natural spring lines and tributaries. The woodlands all vary slightly in species composition and management history, but are mostly typical of Western Atlantic Oak Woodland, or ‘Temperate Rainforest’ habitat (NVC W10/W11). There are some areas of overstood chestnut coppice and alder carr with ash woodland (NVC W7) in the flatter, water logged valley bottoms. Large beech and sycamore can also be found along the river edge.

Tree regeneration is mainly, currently dominated by shade tolerant beech, sycamore and particularly holly, which presents ongoing, long term threats to regeneration of more ecologically favourable tree species composition such as hazel, rowan and oak. Non-native species such as laurel and rhododendron also present issues to understorey regeneration. 2022: Thinning works have begun to reduce the dominance of sycamore, beech and holly. Selective coup felling has also begun to create opportunities for light-demanding tree species to regenerate, however deer browsing pressure remains a barrier throughout these woodlands. Rough vegetation such as bracken and bramble also dominate in some areas of higher light levels, where glades have been created naturally by trees uprooting on thin, steep soils and where ash die back is reducing the dominance of ash tree canopies. Ground flora is varied with some large areas of ancient woodland indicators such as bluebell, dogs mercury, wood anemone, patches of great wood-rush and areas dominated by ferns such as Harts-tongue fern and Broad buckler fern. Areas of wetter soil feature plant species such as opposite leaved golden saxifrage.

Plantation on Ancient Woodland – Aveton Wood (Compartment 5).

Aveton Wood is the only woodland within the Avon Valley Woods complex to be situated on the western bank of the Avon River, in the north-west corner of the site. Aveton was almost entirely coniferised Plantation on Ancient Woodland (PAWs) (excluding compartment 5e which is native broadleaf coppice woodland, but not ASNW), until an outbreak of *Phytophthora ramorum* in the larch (P64) stands (compartments 5a/5d) led to a plant health order and a 6 hectare clearfell, that was restocked to native broadleaves (NVC W8/W10) in 2014/15. The remaining conifer areas are a mature, pure stand of Douglas fir (P64) which are being systematically thinned and restored to ASNW broadleaf woodland. There is a tributary of the Avon river within a coombe bisecting compartments 5a and 5d which has regenerated with wet woodland species such as willow and alder, and features planted poplars. The planted, broadleaf woodland is developing but dominated in places by mature and naturally regenerating sycamore. Ancient woodland indicator ground flora communities are remnant within the PAWs areas, but under threat due to shading.

<p>Significance</p>
<ul style="list-style-type: none"> -Historically significant to the Woodland Trust as the first ever acquisition, and a demonstrable legacy of continuity in the organisations continued priority to purchase, protect and restore ancient woodlands under threat. -County Wildlife Site, recognised for its important conservation status and biodiversity value within the South Devon AONB area. -One of the largest continuous woodland complexes, areas of designated ancient woodland and areas of publicly accessible woodland in the South Devon AONB area. -An important contributor to water quality, flood mitigation and biodiversity within the river Avon catchment. - Source of timber produce arising from restoration processes that may be sold into the local timber market from where products can be purchased for use on site helping to create sustainable economy alongside nature recovery projects.
<p>Opportunities & Constraints</p>
<p>Opportunities</p> <ul style="list-style-type: none"> - Large scope for natural flood management works to improve the biodiversity, flood storage and carbon storage benefits of the ancient woodland, including increasing proportion of willow within the floodplain. - Scope for further outreach with surrounding stakeholders in regards to landscape connectivity and conservation. - Chance to demonstrate and deliver silvicultural interventions within areas of ASNW currently unable to facilitate light-demanding species regeneration. - Scope for greater species surveying, and development of long-term monitoring program. -Potential for natural colonisation of Pine Marten and Goshawk from the wider landscape, aiding control of grey squirrel populations. -Potential for natural colonisation by Beaver following wider increases in wild Devon population <p>Constraints</p> <ul style="list-style-type: none"> - Limited management access for vehicles to Woodleigh, virtually no management access for vehicles to Titcombe and Bedlime. - Woodleigh and Titcombe not ideally suited for deer management activities due to public footpath and higher levels of use by the public for recreation. - Spread of non-native invasive species such as Himalayan balsam and Japanese knotweed from upstream and wider landscape into the Avon Valley Woods, from areas where it is not controlled.
<p>Factors Causing Change</p>
<ul style="list-style-type: none"> -Shade tolerant tree species such as beech, sycamore and holly becoming dominant and outcompeting more ecologically favourable ground flora and light-demanding tree species such as oak, rowan and hazel. -Increasing Deer populations, increasing numbers of fallow and other species, increasing browsing impact on regenerating tree species and ground flora. -Invasive non-native species such as rhododendron, laurel, Himalayan balsam and Japanese knotweed becoming introduced and spreading, out-competing native flora. - Natural processes such as overstood tree wind-blow on thin, steep soils creating glades, improving structure naturally in some areas of Woodleigh and Titcombe. - More severe, high flow river events due to climate change, coupled with higher visitor pressure causing erosion of river banks and siltation. - Natural introduction of trees to watercourses creating more naturalised hydrology and habitats.

-Tree diseases:. Causing reduction of species populations such as in ash; 'naturally' creating structural diversity and increasing deadwood, adversely affecting restoration by forcing a clearfell and restock instead of preferred gradual approach

Long term Objective (50 years+)

PAWs woodland Fully restored to secure status and developing as an ASNW with high structural and tree species diversity (to create a high quality successional habitat for bird species and dormice), areas of native broadleaf ancient woodland to develop a diverse structure with wide variety of tree ages and tree species diversity, abundant standing and fallen deadwood, veteranising trees and vigorously regenerating understorey of light-demanding tree species and ground flora, achieved through targeted interventions. A small proportion of large conifer trees, such as Scots pine or Douglas fir will be retained to support specialist bird species such as Siskin and Goshawk. Total and maintained eradication of non-native invasive species, and continued increase in presence and diversity of ancient woodland indicator species. Development of habitat suitable for native species of beaver, with adequate proportions of willow, aspen and high quality wet-woodland habitat, in the event of an external all-catchment release on the river Avon. Restoration of natural river physical and biological processes through natural flood management interventions, re-connecting the river floodplain and restoring biodiversity, flood water storage capacity and associated biodiversity within the wood.

Short term management Objectives for the plan period (5 years)

- Thinning operation of Douglas fir (5b + 5c - PAWs area) in Aveton wood to progress ancient woodland restoration (including felling of DF canopies into stream (5b) to aid natural flood management processes).
- Coppicing and ride thinning of trees in Aveton broadleaf woodland areas (5a + 5d + 5e) area to improve structural diversity.
- Respacing of 5a, 5c and 5d to reduce dominance of naturally regenerating holly, beech and particularly sycamore.
- Thinning of alder wet woodland areas in Woodleigh and Titcombe (2a), to create light for willow and aspen establishment.
- Map and eradicate non-native species including rhododendron, laurel, Himalayan balsam and Japanese knotweed.
- Control of shading species such as holly, beech and sycamore in ASNW areas through ringbarking and felling.
- Small selective coup felling within highly shaded areas of homogenous canopy structure to encourage regeneration of light demanding species in Bedlime, Titcombe and Woodleigh.
- Tagging and haloing of veteran and ancient tree specimens identified in 2022 veteran tree survey report.
- Herbivore impact assessments and aerial thermal imaging surveys to determine deer species and population pressure within the site. Development of deer management program.
- Installation of woody debris dams to create wet woodland habitat and assist natural process of floodplain reconnection in Titcombe and Woodleigh. Planting and underplanting of willow and aspen in wet woodland areas, particularly to remediate river banks exposed by overstood tree fall.
- Selective under planting to increase tree species diversity in homogenous areas throughout the site.
- Complete removal of redundant plastic tree guards from restock area, reuse if possible.
- Develop species monitoring program for breeding birds (e.g. Pied flycatcher), winter birds, bats and butterflies, lower plants, fish and riverfly species, using site based volunteer group, contractors and external organisational partners
- Tree Safety works.

4.2 f2 Mixed Habitat Mosaic

Description

Secondary Planted Woodland – Watkins Wood (79.77ha) (Compartments 3 & 4)

Watkins Wood was a woodland creation project planted with an NVC W8 (Ash/Maple) and NVC W10 (Oak/Bramble) native woodland broadleaf mixture between 2000 and 2004, to mirror the composition of surrounding woodlands, on five large arable fields purchased by the Woodland Trust. An area of compartment 3a was also left as a natural regeneration area and has developed a very similar species composition to the adjacent planted areas. Watkins was created to commemorate the legacy of the eponymous founder of the Woodland Trust, with its symbolic proximity to the first ever acquisition by the organisation, Bedlime Wood to the north. Excepting the woods bisection by a small country B-road, the planting provided direct connectivity between the ancient woodlands and the river Avon with the Torr brook in the adjacent valley to the east. The wood also features a remnant network of historic hedgerows which increase its ecological connectivity value and have been identified as providing vital linear navigation features for foraging bat species by Devon Wildlife Trust's 'Greater Horseshoe Bat' project. Wide rides were deliberately left between hedgerows and planting areas to preserve these linear features. The first twenty years of the wood's development has provided a homogenous, successional stage plantation which has been valuable habitat, however as it approaches canopy closure, grazing cattle and ride-edge coppicing have been introduced in the last five years to create disturbance, and increase the structural diversity of the plantation areas for biodiversity. The infection and management of the large areas of ash within Watkins Wood with ash die back disease (*Hymenoschyphus fraxienus*) in 2016 is also producing a self-thinning disturbance effect, contributing to the structural diversification and increase in deadwood volumes.

Watkins Wood features a stock fenced woodland compartment (3a) and two stock fenced open grassland compartments (3b and 4c) which are grazed by a herd of 'Dexter' cattle, a conservation breed owned and depastured by local conservation grazier, 'Cows in Clover'. The open grazed area in sub-compartment 4c is cut for hay on an annual basis by a local farmer and then grazed with the long-term goal of increasing grassland species diversity. Sub-compartment 3b is grazed year round in conjunction with the woodland areas in 3a to create a rough grassland habitat with high invertebrate habitat value, with open grown field trees and wide hedges. Within the establishing woodland areas the cattle act as 'ecological drivers' causing disturbance beneficial to biodiversity and naturalised structural development of the woodland. Compartments 4a and 4b are located closest to the village of Woodleigh and were established in 2000 as part of the "Woods On Your Doorstep" project. In addition to a native broadleaf plantation with ample glades and rides, they also feature areas of open grassland, a network of hedgerows and a heritage community orchard (See key feature 4). The wood also features the Torr brook, a significant watercourse running along the site's eastern boundary (see Key Feature 5).

The ground flora within the mixed habitat mosaic is subject to high variation and change as it develops into a wooded-grassland matrix, and species community distributions are determined by phosphate soil legacy levels, tree canopy densities and grazing intensity. Floral species include common spotted orchid, bird's foot trefoil, barren strawberry, hawkbits and the introduced flower 'fox and cubs'. Ragwort is a management issue throughout the open grassland areas, and is subject to annual control.

<p>Significance</p>
<ul style="list-style-type: none"> -One of the largest single areas of woodland creation in the South Devon AONB. -Historical significance to the Woodland Trust due to proximity with first ever acquisition and purpose commemorating the organisation’s founder Kenneth Watkins. -Highly important landscape connectivity feature linking the Avon river with the Torr brook and two areas of Ancient Woodland. -An important research and demonstration site pioneering the grazing of a newly established native broadleaf woodland by conservation cattle to diversify structure. -Highly important foraging and commuting habitat for Great Horseshoe bats within the South Devon AONB. -Features the Torr brook, a significant watercourse in the Avon valley catchment
<p>Opportunities & Constraints</p>
<p>Opportunities</p> <ul style="list-style-type: none"> -Scope for significant natural flood management project to re-naturalise the Torr brook watercourse, with benefits to biodiversity and carbon storage within Watkins Wood, due to ‘rewetting’. -Ash die back producing a self-thinning effect, creating temporary open space, structural diversity and increased deadwood volumes. - Opportunity to improve barn structure and surrounding habitat in Watkins Wood for Greater Horseshoe Bat maternity roosting. <p>Constraints</p> <ul style="list-style-type: none"> -Relatively few veteran, ancient or significantly older trees compared to other areas within the Avon Valley Woods. -High volume of dog walkers coming into potential conflict of interest with grazing cattle. -Limited number of suitable conservation graziers, grazing cattle breeds and/or animal numbers in local area. -High associated cost with installation and maintenance of cattle drinkers and infrastructure.
<p>Factors Causing Change</p>
<ul style="list-style-type: none"> -Ash die back disease (<i>H. fraxienus</i>) causing self-thinning effect in plantation, and leading to temporary open space and canopy loss in some areas of homogenous species planting. Loss of important tree species within ecosystem and associated trophic cascade. -Plantation approaching canopy closure as woodland develops, decreasing light levels in some areas. -Cattle causing levels of disturbance to existing and regenerating trees, creating areas of open space, diversifying edge habitat and altering ground flora, potentially having a localised effect on natural regeneration. -Cattle creating bank erosion and nutrient inputs into watercourses. -Encroachment of invasive grassland flora such as ragwort, thistles and docks associated with high soil fertility legacy.
<p>Long term Objective (50 years+)</p>
<p>Watkins wood will continue its development from a newly planted woodland to a thriving, structurally diverse native, broadleaf woodland and landscape connectivity feature, facilitating the expansion of ancient woodland indicator species between existing areas of ASNW. Grazing cattle will continue to remain an ecological feature of these woodlands, producing cyclical areas of intermediate disturbance, creating diverse successional habitats for all species of</p>

native wildlife. Deadwood levels will continue to increase, multi-tree age structure and shrub layer will be encouraged to develop as the woodland canopy develops, through natural regeneration and underplanting, veteran and future veteran trees will be protected and managed to ensure the presence of older trees within the tree age profile. The Torr brook will be a fully naturalised watercourse, supporting an intact community of riparian species, including beaver. Management of rides and open spaces, including of the orchard area will continue to play a role in maintaining structural and ecological diversity.

Short term management Objectives for the plan period (5 years)

- Delivery of natural flood management project on the Torr Brook, thinning of ash, sitka spruce and larch, using timber material to re-naturalise the watercourse in addition to re-landscaping the bank and reconnecting the floodplain, improving quality of wet woodland, increasing the proportion of willow and aspen.
- Ride side coppicing of broadleaf woodland plantation areas to diversify edge habitat structure
- Continue to annually cut and remove hay from sub-compartment 4c.
- Continue to graze both open grassland areas and woodland areas in 3a and 3b.
- Develop species monitoring program for breeding birds, winter birds, bats and butterflies.
- Map and eradicate non-native species including rhododendron, laurel, Himalayan balsam and Japanese knotweed.
- Tagging and haloing of veteran and ancient tree specimens identified in 2022 veteran tree survey report.
- Herbivore impact assessments and aerial thermal imaging surveys to determine deer species and population pressure within the site.
- Tree safety works along paths and roadsides, particularly aimed at mitigating ash dieback disease.
- Planting of two open grown field oak trees in 3b protected with cactus guards.

4.3 f3 Connecting People with woods & trees

Description

Location

The Avon Valley Woods complex sits at the heart of the South Devon AONB and the Avon River catchment. Despite it’s relatively remote rural situation it is located within driving distance of many of the South Ham’s principle settlements, including South Brent (6 miles), Ivybridge (7 miles), Totnes (8 miles), Dartmouth (9 miles) and Kingsbridge (3 miles). The popular south Devon coastline is only 6 miles away, with Start Bay to the east, and Bigbury Bay to the west. Torquay and Plymouth are both less the 15 miles and Exeter 30 miles, however the road networks are predominantly rural, narrow and relatively challenging to access.

Current Access and Infrastructure

The entire site is accessible via a 13 kilometre, sinuous network of permissive footpaths and two public rights of way (Woodleigh footpath 2 and Woodleigh bridleway 4), many of which can be rough, steep and wet in places. There is one , circular permissive bridleway in Watkins Wood which links to the PRow. The historic, 12-mile ‘Primrose Line’ Victorian railway (built in 1893) that once traversed the valley but closed in 1963, now forms the basis of a level walking route along the banks of the River Avon and links many of the Avon Valley’s ancient woodlands (Woodleigh, Titcombe and

Aveton Woods) together. The Avon Valley Woods constitute the largest single area of publicly accessible woodland in the South Devon AONB. There are two main car parks, Watkins East (W3W///people.backdrop.lengthen) and Watkins West (W3W///deliver.collected.imprinted), just north of Woodleigh which provide dog bin facilities and access to the more recently planted woodland (Watkins Wood), and to the wooded valley below, these latter areas can be challenging to access from the car parks due to steep valley paths that can also be wet in winter. A third car park can be found at Aveton Wood (W3W///joked.gloves.hill), and provides access to the northern end of the site and connects with the public right of way adjacent to the Avon River (Woodleigh Footpath 2), which is liable to seasonal winter flooding, and therefore inaccessible in parts during high river flow events. Bedlime Wood has historically had no formalised public access infrastructure or paths. All car parks feature interpretation signs with site access information detailed.

User Groups

Previous visitor surveys have shown the site is used predominantly by the local population, particularly dog walkers, runners, walkers and horse riders (on permitted bridlepaths), however, in the summer high season, the PRoW along the riverside path is very frequently used by visitors and tourists. 'The Avon Valley Walk' has been widely promoted in recent tourism guides, leaflets and online and thus the footfall related to tourism in the valley has significantly increased over recent years. The nearest local school is Loddiswell primary, circa 1 mile away, and there is an established Forest School in east Watkins wood which delivers environmental education to local children. The Aune fishing association also possess fishing rights to a section of the Avon River adjacent to Aveton Wood.

Volunteering

The Avon Valley Woods volunteer woodland working group was established in January 2020 and as of 2023 has around 40 regular, local volunteers who dedicate one Saturday and two Wednesdays a month to practical habitat conservation tasks within the Woodland Trust's five woodlands in the Avon Valley. The group have developed skills and participated in a wide variety of practical habitat management tasks which have greatly contributed to the biodiversity recovery of the site, from coppicing young trees to diversify edge structure along woodland rides, building woody debris dams which is helping reduce downstream flooding, storing carbon in addition to creating valuable wetland habitat, hedgelaying to increase the longevity and biodiversity value of certain hedgerows within the site, and participating in training, enabling them to begin managing the developing heritage fruit orchard we have on site. The group is also due to begin carrying out a series of wildlife species surveying including dormice, butterflies, bats and birds. Some specialist volunteers are already carrying out detailed invertebrate surveys including moths.

Significance

- Historical significance to the Woodland Trust as the site of the first ever organizational woodland acquisition at Bedlime Wood, in order to protect the wood from felling and coniferisation in the 1970s, and eponymous memorial site to the late founder of the WT, Kenneth Watkins, who lived and created the organization relatively close by in Harford, near Ivybridge.
- The largest single publicly accessible area of woodland in the South Devon AONB.
- Home to one of the largest and most active Woodland Trust volunteer woodland working groups in the South West

region.

-Part of the Woodland Trust's 'Welcome Sites Programme', featuring the top 250 WT sites managed for people.

Opportunities & Constraints

Opportunities

Access and Infrastructure

- Levelling and installation of steps in places along steeper permissive paths.
- Interpretation boards educating about the WTs activity within the woodlands.
- Leaflet design and distribution in local business and hubs e.g. Cafes
- Increase opportunities for local community groups to use the wood e.g. Orienteering

Events

- Opportunity for more and a wider range of public focused events.

Volunteering

-There is a range of expanded volunteering opportunities that could be utilised ranging from, monitoring and survey, practical management to leading guided walks around the woods.

Schools

-Potential for more engagement with school groups and research into level of interest of local educational facilities in visiting the wood.

Wider Community engagement

- The woods could be promoted further afield through libraries, hotels or holiday cottage businesses etc, Increasing visitor numbers could also help the local cafes and pub in Loddiswell as there would be more of a focus for people visiting the wood and then stopping in a café.
- Closer working with other nature conservation charities working within the Avon Valley to engage people.

Constraints

- Relatively difficult to access rural road network.
- Lack of parking access to some areas of the site, particularly the PRoW entrance at Loddiswell Station.
- High rainfall creating difficult, muddy conditions on paths, particularly in steeper areas.
- Extreme rainfall events cutting off some parts of the PRoW, leading to alternative use by walkers of the former Primrose railway line on neighbouring land.

Factors Causing Change

- Path erosion and network becoming increasingly muddy and difficult to access in winter due to closing canopy in woodland creation areas.
- Increasing local visitor population and demographic changes.
- Increase in levels of public access leading to elevated visitor related pressures such as fly tipping, dog mess, camping,

fires, conflict events such as dog attacks, tension between horse riders, dogs, pedestrians and mountain bikers.

Long term Objective (50 years+)

The Avon Valley Woods will continue to be a cherished and historically important site for both the Woodland Trust and the local community, striking a continuing balance between managed public access, facilitating access to nature for all with the protection and enhancement of the wide range of biodiversity and habitats within the Avon Valley. It will continue to be a place for both wildlife and people, with a thriving volunteer group, regular community engagement and ensure continued access to a cherished and respected ancient woodland site. Visitor access infrastructure will be sensitively improved and introduced in balance with the Trust's approach on access to ancient woodlands, while maintaining the character and conservation value of the site. Opportunities to host volunteering and education on the site will continue and expand where viable to increase the local communities engagement with the woodland.

Short term management Objectives for the plan period (5 years)

- In line with the Woodland Trust's guidance and processes on infrastructure in ancient woodlands, sensitive and minimal grading and installation of steps in some of the steeper uneven paths.
- Ride edge coppicing in Aveton Wood and Watkins Wood to create drier path conditions for walkers during high rainfall periods.
- Installation of interpretation boards and benches.
- Install way markers to clearly demarcate the permissive bridgeway
- Removal and replacement of old railway safety fencing in Woodleigh Wood.
- Install Dog waste bins in Watkins Wood Car Parks
- Redirect paths along watercourses where naturalisation occurs and restricts accessibility.
- Install people counter devices to monitor use of car parks.
- Tarmacking and regrading of car park entrances and surfaces
- Tree safety works along paths and roadsides, particularly aimed at mitigating ash dieback disease.
- Maintenance and renewal of infrastructure such as entrance gates and interpretation boards.
- Continued funding of volunteer group tool store container, including tools, equipment and training.
- Management and removal of flytipping.

4.4 f4 Orchard

Description

Avon Valley Woods features a 0.4 hectare community orchard (sub-compartment 4d) planted in 2000 and made up of local and Devon heritage variety apple trees, including Catshead, Devonshire Buckland, Devon Crimson Queen (Queenie), Don's Delight, Lucombe's Pine, Peter Lock, Pig's Nose III, Plum Vite, Sugar Loaf, Summer Stubbard (Stibbert), Veitches Perfection and Winter Stubbar. In 2020, OrchardLink provided several rare breeds of apple tree adding to the orchard's existing variety, including some rare local specimens such as Totnes Apple, Colwell Wood, Sally Sherry's Apple and Doll's eye. The orchard is mown annually in late summer to help gradually improve the ground flora and pruned by the Avon Valley volunteer woodland working group, who received training on formative pruning and orchard management from OrchardLink in 2021.

Significance

- Possessing several endangered, rare breeds of heritage apple such as the Totnes apple and Colwell Wood.
- One of the few managed community, mixed breed orchards left in South Devon following a historic decline.
- Forming part of the distinctive local character of South Devon according to the national character area description (151).
- A cherished cultural, community asset, utilised by locals for traditional autumn events such as apple pressing.

Opportunities & Constraints

Opportunities

- Opportunity for visual interpretation and education around the community orchard and heritage varieties.
- Opportunity for wider community engagement around apple harvesting activities.

Constraints

- Limited spatial area for further expansion of orchard.
- Limited car park access immediately adjacent to the orchard (closest is West Watkins CP).

Factors Causing Change

- Two different age profiles of developing fruit trees requiring different pruning regimes.
- Potential loss of local interest in orchards and their management lead to (loss of woodland working group, and community events such as apple pressing)
- Potential introduction of pests and diseases affecting orchard trees

Long term Objective (50 years+)

The Avon Valley Woods orchard will continue to be managed and pruned annually to a high standard in order to ensure the wide range of heritage, local provenance specimens thrive in health and produce bountiful crops each autumn, The cultural and genetic legacy of these tree varieties will be preserved for future generations, and the orchard will act as a genetic well from which a resurgence in the number of community managed orchards in South Devon can draw their stock from. The Woodland Trust will continue to work closely with OrchardLink, as the local charity with the leading knowledge on orchard management, and the volunteer woodland working group will continue to be supported with training and resources in order to provide the bespoke, annual management the orchard requires to thrive. As the orchard develops it will continue to provide educational and recreational benefits to the local community, particularly through autumn harvest activities such as apple pressing days, providing a link for future generations with the cultural history and traditions of the local area.

Short term management Objectives for the plan period (5 years)

- Develop new educational interpretation installation with comms and engagement team.
- Continued formative pruning of the orchard trees each autumn
- Continued management of grassland areas to improve species richness
- Annual apple harvesting and processing event with local community
- Tree safety works.

4.5 f5 Watercourses

<p>Description</p>
<p>There are two main watercourses flowing through the Avon Valley Woods, the main Avon River (also known as the river Aune) and one of its many tributaries the Torr Brook. The Avon River is one of the seven main rivers that rise from South Dartmoor and form the heart of South Devon’s natural environment as they make their way to the coast, it is 23 miles long, originating at Ryder’s hill just above the Avon Dam reservoir (constructed in 1957) and flows into the ocean at Bigbury Bay, Part of ‘Devon Avon Estuary’ Marine Conservation Zone the river Avon is home to an abundance of species including egret, heron, salmon (which are known to spawn here), sea and brown trout, otter, kingfisher, cormorant and dipper. The Avon catchment suffers from ongoing issues with pollution including high phosphate levels, higher average water temperatures, lower oxygen levels driven by climate change contributing to declining salmonid numbers . Climate change driven flood events are an increasing issue in the catchment, in no small part due to the relative lack of tree cover in the upper areas of the catchment and affects in particular, settlements such as South Brent and Aveton Gifford. These are juxtaposed by lower than average flows due to the increasing number of summer droughts, exacerbating low oxygen and pollution issues. These water courses are major connectivity features to the wider landscape, and potential landscape-scale conservation efforts and the management of Avon Valley woods and its hydrology contribute in a significant way to the outputs of the Avon River downstream, particularly at Bantham Beach, one of South Devon’s most important and popular recreational areas of protected natural environment.</p>
<p>Significance</p>
<ul style="list-style-type: none"> -Avon river one of the seven main watercourses in Devon, connecting the moor to the ocean. -Watercourses adding significant biodiversity feature to the site with addition of riparian and freshwater communities of species and interaction with woodland habitats to form wet woodland. -Upstream of Aveton Gifford and Bigbury Bay, playing a critical role in reducing flooding and water quality issues in communities downstream.
<p>Opportunities & Constraints</p>
<p>Opportunities</p> <ul style="list-style-type: none"> - Significant scope for re-naturalisation of the water courses on site for the benefit of natural flood management, biodiversity and climate mitigation. - Opportunity to introduce contractor led and/or citizen-science led monitoring of the watercourses for metrics such as waterquality (phosphate, ph, temperature, turbidity, conductivity), river-fly species, flow volume, REDDs and fish numbers. -Demonstration opportunity for external stakeholders to learn about natural flood management interventions and nature recovery on site. -Potential for colonization of the site by Eurasian Beaver, following a hypothetical all catchment release program on the Avon River catchment. - Opportunity to increase the spawning populations of Salmonid species through breeding and feeding habitat creation and improvement. <p>Constraints</p>

- No length of the Torr Brook or Avon River are owned on both banks/ sides by the Woodland Trust necessitating neighbour coordination on any proposed works.
- Pollution inputs and other deleterious factors affecting the watercourses beyond the site or control of the Woodland Trust.
- Lack of general understanding about natural flood management and acceptance of the practice.
- Location of Public Right of Way in proximity of flood plain and wet woodland.

Factors Causing Change

- Overstood river bank trees uprooting and falling into the watercourses, creating natural flow attenuation features and altering watercourse hydrology.
- Climate change increasing river temperature levels, and therefore dissolved oxygen and impacting on ecology of river system.
- Climate change increasing frequency of high flow events, driving river bank erosion, sedimentation and flood plain re-connection.
- Pollution inputs from upstream sources creating acute and chronic issues for river ecology.
- Potential increase in flows from unregulated draining of land higher in the catchment.
- Colonisation of non-native invasive species such as Himalayan balsam from the upper-catchment
- High footfall along river bank public right of way causing erosion of banks and sedimentation/ dogs in rivers

Long term Objective (50 years+)

Over time the canalised and domesticated watercourses and drainage features within the Avon Valley Woods will be re-naturalised and allowed to re-define their own natural pathways, recreating functional natural hydrology within the reconnected floodplains, coombes and plateaus. The re-wetted woodland areas will progressively increase their carbon and flood water storage capacities, develop functional, biodiverse areas of structurally diverse wet woodland that assist in landscape scale nature recovery and provide future habitat for the return of vital ecosystem keystone species such as the Eurasian Beaver. This in turn will provide huge habitat quality improvement for all species communities associated with re-naturalised wetlands including otter, water vole, birds, amphibians, invertebrates and crucially Salmonid species such as Atlantic Salmon and Sea/Brown Trout, who will be a targeted beneficiary of spawning, nursery and feeding habitat creation from the re-naturalisation of the watercourse, structurally diverse habitat, increase in invertebrates and improved water metrics such as water quality, average flow, water temperature, turbidity and pH.

Short term management Objectives for the plan period (5 years)

- Delivery of 'Wild Water' natural flood management project on the Torr Brook, thinning of ash, re-naturalising the watercourse and improving quality of wet woodland, increasing the proportion of willow and aspen.
- Citizen science project linked with Wild Water project in partnership with Devon Wildlife Trust to monitor multiple metrics associated with the watercourses on site.
- Installation of woody leaky dam features into tributaries in Woodleigh, Titcombe and Aveton Woods. Utilising small diameter beech, holly and sycamore, and larger diameter alder and ash (selectively thinned).
- Underplanting of willow and aspen in riparian corridor to increase proportion of habitat suitable for Eurasian Beaver.
- Retention, management and facilitation of fallen bankside trees into the river Avon over the management plan period

to create natural flood attenuation features and assist in floodplain reconnection and rewetting of wet woodland areas.

5. WORK PROGRAMME

Year	Type Of Work	Description	Due Date
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APPENDIX 1 : COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
1a	12.95	Mixed broadleaves	1950	High forest	No/poor vehicular access within the site	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty
<p>BEDLIME WOOD (12.82ha) Ancient semi natural woodland, upland oak with close affinity to NVC type W10 principally stored coppice with uniform structure and species range, denser and small in height and size along the eastern plateau of the woodland, with larger trees on the slopes. The wood does also mature beech and sycamore standards, predominantly on the southern and northern areas of the wood . Slowly developing a more varied structure in places due to silvicultural interventions and natural processes such as windthrow and tree die back. Pockets of open canopy are occasional, featuring silver birch, downy birch, rowan and hazel establishment. Understory is dominated by hazel, with holly forming dense stands in some areas and regenerating sycamore and beech throughout, although overall understorey cover is below 50%, particularly in areas where the canopy is overshadowed by beech or sycamore. Under storey rowan and hawthorn is occasional in distribution, with very rare examples of wild service tree, ash is also rare, mostly found in the southern and northern area of the woodland.. Sweet Chestnut forms a greater proportion of the canopy in the southern half of the wood. Ground flora includes ancient woodland indicator communities including locally dominant bluebell, dogs mercury, locally abundant broad buckler-fern, frequent male-fern, scaly-male-fern, occasional wood anemone, bracken soft shield-fern, honey suckle and hard –fern, also present are patches of bramble and greater woodrush. There are also diverse communities of lower plant present. Tree species regeneration is poor due to suppressed light levels, but present in naturally and silviculturally formed glades, the proportion of standing and fallen deadwood is also relatively low in this stand, but improving.</p>						
2a	24.91	Mixed broadleaves	1950	High forest	No/poor vehicular access to the site	Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty
<p>TITCOMBE WOOD (ASNW) (12ha) Ancient semi natural woodland, compartment has a mainly westerly aspect, sloping to the west, levelling close to the River Avon. To the north of the compartment the dominant species is stored sweet chestnut coppice along with pole stage beech, silver birch and ash dating from the post war period circa 1950. Occasional mature beech circa P1870 present throughout. Wet, alder carr woodland dominates the lower slopes adjacent to the river with occasional poplar. Pole stage ash is present midway through the stand established around 1965, which is dying back due to H. fraxineus disease. To the south east there is a higher incidence of mature and spreading beech trees with an infill of sycamore that has been coppiced. The under storey</p>						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
<p>is composed of hazel, elder, rowan and sycamore. Hazel coppice is abundant to dominant in a small number of areas within the compartment. Current structure indicates a more open canopy pre 1950 that may have been grazed and/or alternatively heavily felled during the war. Ground flora varies in abundance throughout the stand but comprises of wet woodland plant communities and ancient woodland indicator species including bluebell, wood avens, nettle, bryophytes including male, hard and harts tongue ferns, bramble, wood rush and dogs mercury.</p> <p>WOODLEIGH WOOD (14.76ha) Ancient semi natural woodland with westerly aspect. Oak, sweet chestnut and beech dating from the 1950s is more prominent at the northern end of the compartment, including a small spur of land planted with beech and hazel in 1985. Mature beech (est. P1870) are scattered throughout the lower western edge, tending to be confined to boundary features. Occasional mature pine and larch are also evident. Pole stage alder (P1965) is located along the lower wetter western boundary, where multiple freshwater tributaries can be found. The remaining areas are dominated by sycamore coppice which forms around 50% of the canopy, with oak, ash, sweet chestnut, cherry, larch R, Scots pine R, silver birch and beech present. As with other ASNW compartments much of this regeneration dates from the post war period (1950-1960) indicating areas of significant felling in that period. Where the canopy structure permits hazel, elder, holly, beech, ash, sycamore and honeysuckle is abundant and dominates resulting in greater shading. Thinning throughout the wood is beginning to diversify the structure, reduce the dominance of beech, sycamore and holly and encourage natural regeneration of light demanding species. A seasonal pool fed by multiple small tributaries rises and floods an area adjacent to where the railway line embankment blocks an old bend in the original line in the river. Ground flora comprises of bluebell, dog's mercury, wood avens, bryophytes including hard and male ferns, ground ivy and bramble. Outcrops provide a moist habitat where mosses cover the exposed rock. Steeper areas featuring thin soil are naturally developing a more varied structure as overstood, shallow rooted trees are successively blown over forming naturally regenerating glades.</p>						
2b	2.7	Mixed broadleaves	1950	High forest	No/poor vehicular access to the site	Area of Outstanding Natural Beauty, Planted Ancient Woodland Site
<p>TITCOMBE WOOD (PAWS) (2.63ha) The northern section of Titcombe Wood is identified as PAWS on the Ancient Woodland Inventory, possibly due to the presence of an overstood sweet chestnut plantation overstorey, There are some mature Douglas fir in the wood but, the stand is in an overall 'secure' condition. The sweet chestnut were ringbarked in 2021 to encourage increased light levels and understory regeneration. This area features a higher proportion of bryophyte abundance than the surrounding woodland areas, and similar ancient woodland indicator plant communities including bluebell and hard fern.</p>						
3a	23.7	Mixed native broadleaves	2004	Wood pasture		Area of Outstanding Natural Beauty

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
<p>WATKINS WEST (27 ha) Area of mixed, native broadleaf woodland creation planted between 2000 and 2003, including pedunculate oak, sweet chestnut, goat willow, alder, field maple, ash, silver birch, cherry, hazel, hawthorn, norway maple, hawthorn, hazel, elder. Beech, sycamore and holly have naturally regenerated into the stand. There was also an area of open ground left to establish by process of natural regeneration area which has achieved remarkably similar species mixture to planted areas with a more favourable, mixed structure for biodiversity. This area is grazed periodically throughout the year by a herd of 8 Dexter cattle, managed by a local conservation grazier, the aim of which is to drive diversification of the homogenous structure of the planting and increase biodiversity.</p>						
3b	3.59	Open ground		Non-wood habitat		Area of Outstanding Natural Beauty
<p>WATKINS WEST (27ha) Two field areas of semi-improved grassland on the top of the hill forming Watkins West with iconic views across the South Devon AONB and Avon Valley Woods. These areas were left unplanted to conform with the landscape character assessment of the South Hams, which features unwooded hilltops. The fields are relatively species poor grassland, mainly comprised of compositae such as dandelions, hawkbits, birds foot trefoil and the introduced fox and hounds. The phosphate indices is in excess of 2.5, suggesting a legacy of fertilizer input into the soils. Grazed continuously throughout the year in conjunction with 3a as a habitat matrix.</p>						
4a	33.98	Mixed native broadleaves	2001	High forest	Housing/infrastructure, structures & water features on or adjacent to site, Services & wayleaves	Area of Outstanding Natural Beauty
<p>WATKINS EAST (53.33 ha) was established between 2000 and 2003. The area is surrounded and partly divided by Devon banks and hedges with some extensive open ground to retain views and an open aspect on high ground. Large open areas have been developed as permanent pasture. The land slopes steeply to the east from the road down to the Torr Brook which is lightly wooded along its entire length. The planting surrounds Bushclose copse a block of semi natural woodland which lies in the centre of the eastern slopes. Comprising mainly oak, ash and beech over occasional Hazel coppice with a bramble and bracken ground flora. A small unused barn is situated close to the edge of the copse. 'Century Wood', forming the southern part of Watkins East, lies closest to the village of Woodleigh and was planted with native broadleaves and a new hedge in 2000 as part of the "Woods On Your Doorstep" project. Former arable land surrounded by Devon banks and hedges. The area falls gradually to the eastern hedges. The open ground area also includes a small orchard (Compartment 4d) of South Devon Apple varieties and a large boulder of local stone as the Millennium Feature.</p>						
4b	17.6	Mixed native broadleaves	2003	Wood pasture	Housing/infrastructure, structures & water features on or adjacent to site, Services & wayleaves	Area of Outstanding Natural Beauty

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
<p>WATKINS EAST (53.33 ha) Much of this area was planted in 2003 and protected by rabbit fencing rather than tree guards. There is a large amount of open space, partly due to electricity pylons running across the area. In the north eastern section of the compartment is a low lying area close to Torr Brook is bounded by native willow over a diverse area of grassland. Phosphate indices are very low at 0.9 making this area ideal to manage to enhance the diversity of plants in the grassland areas. There is a small copse of spruce and willow (0.15ha - P1993) adjacent to the stream and bridleway.</p>						
4c	2.43	Open ground		Non-wood habitat		Area of Outstanding Natural Beauty
<p>WATKINS EAST (53.33 ha) This former arable area was left open in response to the landscape character assessment conducted during the Watkins Wood creation scheme. The phosphate indices for the area is 3.5, which represents a very high fertilizer legacy in the soil, reflected in the grassland sward composition which features many coarse grasses, thistles and nettles. However, there are some compositae, bird'sfoot trefoil and barren strawberry present within the sward, suggesting the diversity of the grassland is improving over time due to the annual regime of cutting, hay removal and aftermath grazing.</p>						
4d	0.8	Other	2000	Non-wood habitat		Area of Outstanding Natural Beauty
<p>WATKINS EAST (53.33ha) COMMUNITY ORCHARD (0.4ha) Area of improved grassland, mown annually to improve species diversity and planted with an orchard in 2000 and expanded in 2020. Volunteer woodland working group annually manage the developing specimens of local variety apple trees which include Catshead, Devonshire Buckland, Devon Crimson Queen (Queenie), Don's Delight, Lucombe's Pine, Peter Lock, Pig's Nose III, Plum Vite, Sugar Loaf, Summer Stubbar (Stibbert), Veitches Perfection and Winter Stubbar. In 2020, OrchardLink provided several rare breeds of apple tree adding to the orchard's existing variety, including some rare local specimens such as Totnes Apple, Colwell Wood, Sally Sherry's Apple and Doll's eye.</p>						
5a	6.77	Mixed native broadleaves	2014	PAWS restoration		Ancient Woodland Site, Area of Outstanding Natural Beauty
<p>AVETON WOOD (18.16ha) - Former steep fields with established plantation of thinned Japanese larch (P1964). Close to the entrance a small area of selectively thinned Douglas fir (P1964), slopes down to a small stream feeding river Avon. Ground flora is abundant and species include bramble, bracken, ivy, mosses and ferns. Tree form is generally good. An area of P55 Coppiced wet woodland, including poplar present on a thin strip of wet ground surrounding the stream. Ground flora is more diverse close to the stream, however mostly dominated by successional woodland</p>						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
<p>species and rough vegetation such as bracken, rosebay willow herb, bramble, umbellifer spp, bind weed, honey suckle, grass spp. herb Robert and vetch spp.</p> <p>This area is an ancient woodland site that was planted with Japanese larch in 1964. The topography is varied with a small stream valley running through the middle of it but overall the site slopes down to the east towards the river Avon. the section along the southern side of the stream was clear felled of Douglas fir and restocked with broadleaf trees in 2003 including p. oak, willow, rowan, ash, elder, hazel, alder,, sweet chestnut, silver birch. Phytophthora ramorum was identified as present in 2013 and the larch clear felled under a statutory plant health notice in winter of 2013 / 14. It was restocked with native broadleaf trees and shrubs in March 2014 leaving wide margins at the ride edges to provide a more diverse habitat. Hazel was also planted without tree guards to try to encourage canopy closure quicker. The ground flora is currently dominated by rough vegetation such as bramble and bracken. 2022 - The stand is developing into a native broadleaf woodland, and is currently in a scrub phase providing valuable successional habitat, particularly for birds such as migratory Redwing, but roughly a decade away from pole stage/ canopy closure. Sycamore regeneration is a long-term issue facing tree species diversity in this stand. Some trees, particularly sweet chestnut are suffering deleterious pressure from grey squirrel and deer damage.</p> <p>Overall Woodland Condition Assessment notes for Aveton Wood 2022 – Standing and fallen deadwood are low throughout, and invasive species including Japanese Knotweed, Rhododendron ponticum, Cherry laurel and Himalayan balsam are present. Ash die back is affecting ash in broadleaf areas, particularly mature ash in compartment 5e.</p>						
5b	1.09	Douglas fir	1964	PAWS restoration		Area of Outstanding Natural Beauty, Planted Ancient Woodland Site
<p>AVETON WOOD (18.16ha) A stand of Douglas fir planted in 1964, on an ancient woodland site, alongside the stream running through the site. It was thinned in 2013, and is due for a further thin in Jan/Feb 2023, reducing its overall size and density and allowing further natural regeneration of native broadleaf trees, which is already prolific, with abundant goat willow, silver birch and hazel. Ground flora is a mix of ferns and bramble, with remnant ancient woodland indicator species, and annually recolonizing H. balsam. The bottom of the small coombe is a developing broadleaf wet woodland, with ongoing introduction of woody debris to aid rewetting.</p>						
5c	4.08	Douglas fir	1964	PAWS restoration		Area of Outstanding Natural Beauty, Planted Ancient Woodland Site

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
<p>AVETON WOOD (18.16ha) This compartment was former ancient woodland planted with Douglas fir in 1964. It was thinned in 2003, 2013 and due for a further thinning in 2022, reducing overall density of DF and progressing toward and overall restoration to broadleaf woodland following a final thinning operation in 2032-2034. Understory natural regeneration of native broadleaf trees is prolific and diverse, with species such as sweet chestnut, hazel, silver birch, and elder, but dominance by holly, beech and particularly sycamore is a medium to long term management issue for this stand. There are signs of remnant ancient woodland indicator plant communities holding on in the few areas of elevated light levels such as tracksides and includes bluebell, enchanters nightshade, cow wheat, dogs mercury and wood sorrel. Other areas feature dominance by rough vegetation such as bramble, ferns or bare ground. Conifers supporting target bird species such as Siskin.</p> <p>2022 - Suspected 'Swiss needle cast' disease infection in Douglas fir crop.</p>						
5d	2.64	Mixed native broadleaves	2014	Wood establishment		Area of Outstanding Natural Beauty
<p>AVETON WOOD (18.16ha) According to the county epoch series 1 OS maps the steep northern section down to the stream was open fields with an orchard to the western end. It was planted with larch in 1964 and clear felled along with the rest of the larch due to Phytophthora in 2013. Restocked at the same time as the rest of the site with mixed native broadleaf trees, including p. oak, willow, rowan, ash, elder, hazel, alder,, sweet chestnut, silver birch which is developing at the same rate as compartment 5a, and features the same encroachment issues with naturally regenerating holly, beech and sycamore. the ground flora is similar to 5a, and is dominated by rough vegetation bramble, bracken and rushes. There are a number of spring lines that flow down the site to the watercourse at the bottom of the coombe.</p>						
5e	3.33	Mixed native broadleaves	1950	High forest		Area of Outstanding Natural Beauty
<p>AVETON WOOD (18.16ha) This area contains mature broadleaf woodland dominated by mature oaks with hazel coppice and including ash, silver birch, holly, sweet chesnut, wych elm, willow, alder and regenerating sycamore and beech. Mature ash within this compartment is affected with advanced ash die back. Ground flora is frequent but declining due to declinging light levels, but includes ancient woodland indicator species species including dogs mercury, wood avens, tutson, wild strawberry, herb robert, nettle, cownheat, bluebell, bramble, honeysuckle, ivy and fern. There are also high quality lower plant species communities present. Exposed rock is present throughout and appears to have been quarried, with small pits and gullies in places.</p>						

Ancient Woodland

Ancient woods are defined as those where there has been continuous woodland cover since at least 1600 AD. In Scotland ancient woods are defined strictly as sites shown as semi-natural woodland on the 'Roy' maps (a military survey carried out in 1750 AD, which is the best source of historical map evidence) and as woodland all subsequent maps. However, they have been combined with long-established woods of semi-natural origin (originating from between 1750 and 1860) into a single category of Ancient Semi-Natural Woodland to take account of uncertainties in their identification. Ancient woods include Ancient Semi-Natural Woodland and plantations on Ancient Woodland Sites (see below). May support many species that are only found in ancient woodland.

Ancient Semi - Natural Woodland

Stands in ancient woods defined as those consisting predominantly of native trees and shrubs that have not obviously been planted, which have arisen from natural regeneration or coppice regrowth.

Ancient Woodland Site

Stands in ancient woods that have been converted to plantations, of coniferous, broadleaved or mixed species, usually for timber production, including plantations of native species planted so closely together that any semi-natural elements of the understorey have been suppressed.

Beating Up

Replacing any newly planted trees that have died in the first few years after planting.

Broadleaf

A tree having broad leaves (such as oak) rather than needles found on conifers (such as Scots pine).

Canopy

The uppermost layer of vegetation in a woodland, or the upper foliage and branches of an individual tree.

Clearfell

Felling of all trees within a defined area.

Compartment

Permanent management division of a woodland, usually defined on site by permanent features such as roads. See Sub-compartments.

Conifer

A tree having needles, rather than broadleaves, and typically bearing cones.

Continuous Cover forestry

A term used for managing woods to ensure that there are groups or individual trees of different ages scattered over the whole wood and that some mature tree cover is always maintained. Management is by repeated thinning and no large areas are ever completely felled all at once.

Coppice

Trees which are cut back to ground levels at regular intervals (3-25 years).

Exotic (non-native) Species

Species originating from other countries (or other parts of the UK) that have been introduced by humans, deliberately or accidentally.

Field Layer

Layer of small, non-woody herbaceous plants such as bluebells.

Group Fell

The felling of a small group of trees, often to promote natural regeneration or allow planting.

Long Term Retention

Discrete groups of trees (or in some cases single trees) that are retained significantly past their economic felling age. Operations may still be carried out within them and thinning is often necessary to maintain stability.

Minimum Intervention

Areas where no operations (such as thinning) will take place other than to protect public safety or possibly to control invasive exotic species.

Mixed Woodland

Woodland made up of broadleaved and coniferous trees.

National vegetation classification (NVC)

A classification scheme that allows an area of vegetation to be assigned to the standardised type that best matches the combination of plant species that it contains. All woodlands in the UK can be described as being one of 18 main woodland types (W1 - W18), which principally reflect soil and climatic conditions. For example, Upland Oakwoods are type W11, and normally occur on well drained infertile soils in the cooler and wetter north and west of Britain. Each main type can be subdivided into numerous subtypes. Most real woods contain more than one type or sub-type and inevitably some woods are intermediate in character and can't be properly described by any sub type.

Native Species

Species that arrived in Britain without human assistance.

Natural Regeneration

Naturally grown trees from seeds falling from mature trees. Also regeneration from coppicing and suckering.

Origin & Provenance

The provenance of a tree or seed is the place where seed was collected to grow the tree or plant. The origin is the geographical location within the natural range of a species from where seeds/tree originally derives. Thus an acorn collected from a Turkey oak in Edinburgh would have an Edinburgh provenance and a southern European origin.

Re-Stocking

Re-planting an area of woodland, after it has been felled.

Shrub Layer

Formed by woody plants 1-10m tall.

Silviculture

The growing and care of trees in woodlands.

Stand

Trees of one type or species, grouped together within a woodland.

Sub-Compartment

Temporary management division of a compartment, which may change between management plan periods.

Thinning

The felling of a proportion of individual trees within a given area. The remaining trees grow to fill in the space created.

Tubex or Grow or Tuley Tubes

Tubes placed over newly planted trees or natural regeneration that promote growth and provide protection from animals such as rabbits and deer.

Weeding

The control of vegetation immediately around newly planted trees or natural regeneration to promote tree growth until they become established.

Windblow/Windthrow

Trees or groups of trees blown over (usually uprooted) by strong winds and gales.

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