Willow Walk Wantage
Site Information
&
Management Plan

2026 - 2031

Prepared by Vale of White Horse District Council

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1. Introduction

Willow Walk Nature Reserve is an urban nature reserve, in the heart of Wantage. It is bordered to the north by a business park, to the west by housing, to the south by housing and a petrol station and to the east by Letcombe Brook. The site was transferred from New West Homes developers to Vale of White Horse District Council (VWHDC) in 1985 and is classified as Public Open Space.

The management of Willow Walk directly contributes to Action on Climate and Nature Recovery in the Vale of the White Horse District Council's At the Heart of the Vale: Council Plan 2025-2029. This plan sets out how VWHDC will manage the reserve, for the benefit of wildlife and people. Detailed annual work programs will be drawn up based on the recommendations contained in this document and the management and monitoring activities outlined in Appendix 1. The plan will allow operational staff to understand and follow the management and monitoring activities for the site, and for stakeholders to understand the management of the site and rational behind it.

The aim of this management plan is to set out a framework for the management and use of Willow Walk, over the next five years. It will be under continual yearly review during the period of the plan as a dynamic document. Success will be measured against the management activities with site surveys, ecological monitoring and a review of the completion of the work plan. It will try to strike a balance between what is desirable and what is able to be achieved with the limited budget, VWDC staff capacity and volunteer resources available.

This is the first version of the Willow Walk Management Plan covering the period 2026 - 2031.

Executive summary

Reserve Name:	Willow Walk
OS Grid Reference:	SU 399 884
Total size:	2.88ha (~7ac)
District:	Vale of White Horse
County:	Oxfordshire
Current Status:	Nature Reserve
Local Planning Authority:	Vale of White Horse District Council (VWHDC)
Owner:	VWHDC
Type of landholding:	Freehold
Overall responsibility:	Strategic Property Team, Abbey House, Abbey Cl, Abingdon OX14 3JE.
Works/vehicle access:	Through vehicle gate off Liddiard Close, SU 399 885

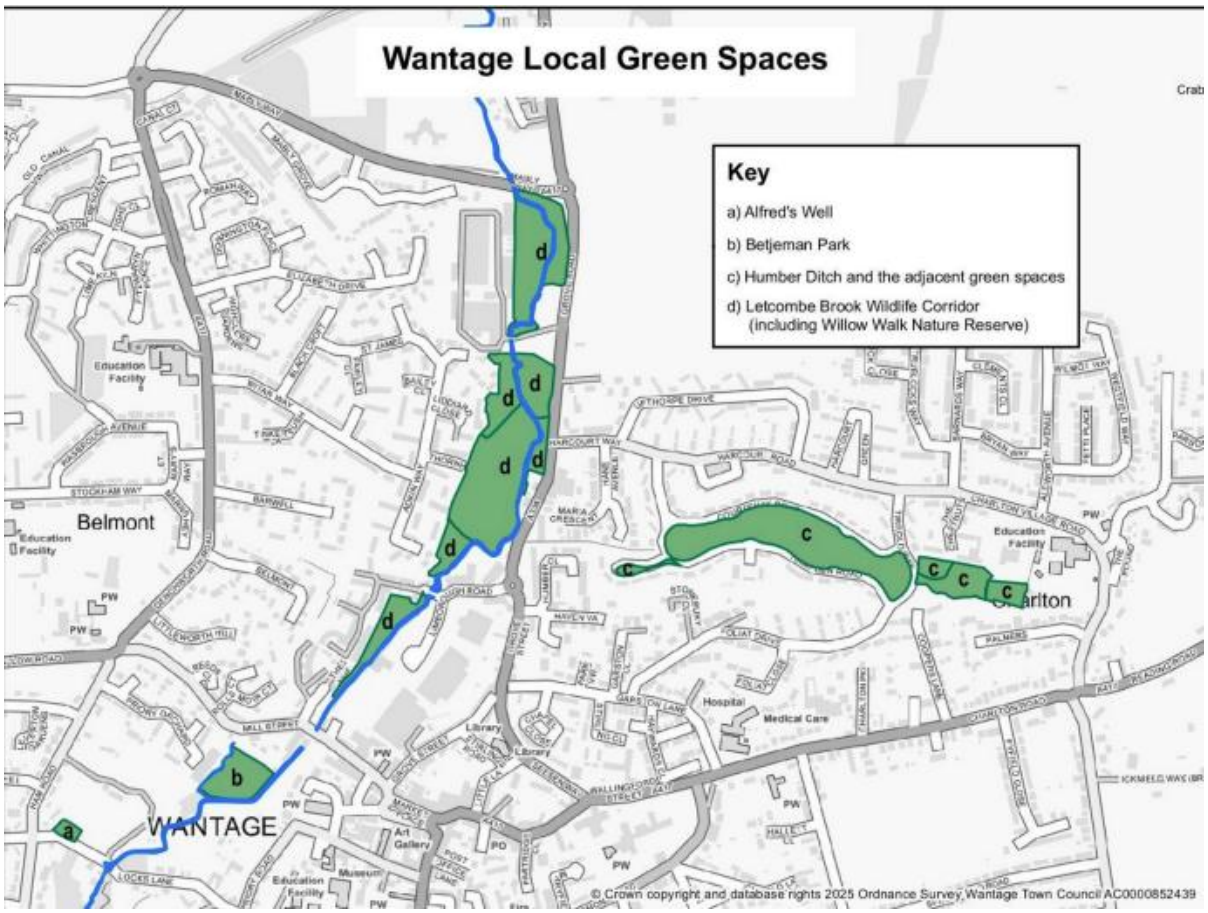
2. Site Information

Site Context

Willow Walk Nature Reserve is located to the north of Wantage town centre and forms part of a network of open green spaces running through Wantage along the Letcombe Brook. It is bordered on three sides by housing and commercial properties. A surfaced permissive path through the site links Grove Road and the Adkin Way development to the west and there is an informal perimeter path.

The Vale acquired the land in 1985 when it was transferred from New West Homes. It is presumed to be Public Open Space, although no record of this can be found (deeds packet ref: F829).

Figure 1. Willow Walk Nature Reserve in its landscape context



Location and Site Boundaries

Willow Walk Nature Reserve is located 500m from the centre of Wantage, towards the north of town. Access is by Grove Road at SU 400 885 (what3words overtones.abode.scribbled) and Grove Road at SU 400 886 (what3words hood.chilled.wager) and Thornhill Close entrance at SU 399 884 (what3words decays.footpath.sulky).

Map Coverage

The reserve is covered by OS Landranger (1:50 000) no. 174 (Oxford) and OS Explorer (1:25 000) no. 170 (Vale of White Horse).

Management/Organisational Infrastructure

As the site owner, VWHDC (comprising Councillors and Officers) is the budget-holder and ultimate decision-maker for the site. Within VWHDC, the Strategic Property Team has overall responsibility for the site, the Climate and Biodiversity Team provide advice and support where necessary and the Grounds Maintenance Team are responsible for the management of the site with significant support from The Letcombe Brook Project Officer and volunteers. Where the Vale owns one side of the Letcombe Brook it is assumed that the ownership extends to the centre of the watercourse. As riparian owners the council has responsibilities towards the maintenance of the channel and the banks including clearing obstructions, repairing the banks, protecting vegetation/trees, and removing rubbish.

Past management

The land now forming Willow Walk once formed part of a medieval and post-medieval ridge and furrow cultivation system that extended between East Challow and Wantage. Open-field farming in some form survived in Wantage area until the nineteenth century when the fields were enclosed by act of parliament. Historical maps indicate that this site was grassland until 'Epoch 1955 – 1980' and by 1999 it was scrubbing up. 2004/2005 maps show that significant clearance or pollarding took place immediately south of the stink pipe embankment. Figure 2. shows aerial photos illustrating the reduction of the open nature of the site through scrubbing up over the period of 2005 – 2024.

Figure 2. Sequence of aerial photographs to show the gradual scrubbing up of the site over the last 20 years.



2005 2010 2018 2024

Associated Groups

The Letcombe Brook Project seeks to protect, enhance and restore the brook and its natural processes, for wildlife and communities. To that end, it has been involved with delivering practical environmental management of Willow Walk for many years. The Letcombe Brook Project holds regular volunteer work parties and typically visits Willow Walk 3-4 times per year, for around 2-2.5 hours each time. In recent years, tasks have focused on the brook banks and meadow in compartment 2, but there is the potential for the group to do more. Typical tasks include litter picking, bank clearance and bramble management.

Vision

Willow Walk Nature Reserve will be maintained, enhanced, and celebrated as a nature-rich, climate resilient, and accessible natural space at the heart of Wantage. The reserve will support a mosaic of natural habitats, with particular emphasis on protecting and improving the chalk stream and wetland and woodland ecosystems characteristic of the site. The site's capacity to absorb excess rainfall, slow surface

runoff, and capture overspill from the Letcombe Brook during periods of high flow is acknowledged and will be increased, helping to reduce downstream flooding and protect surrounding communities.

Through sensitive management, the reserve will be managed to maintain and restore its ecological integrity, increase habitat quality, connectivity, and resilience to climate change and other environmental pressures. Native flora and fauna will be encouraged to flourish, invasive species controlled, and natural processes supported wherever appropriate.

Alongside its biodiversity and natural flood management value, Willow Walk will provide a welcoming and safe green space for quiet recreation and connection with nature. The reserve will offer opportunities for visitors to experience wildlife and develop a sense of stewardship for the natural environment. Through partnership working and community involvement Willow Walk will inspire appreciation of nature and foster long-term support for its conservation. The reserve will be managed as a place where people and wildlife can coexist, ensuring its ecological, educational, and social value is protected and enhanced for future generations.

3. Environmental Information

Soils

The underlying geology is classified as chalky drift, which is overlain with freely draining lime-rich loamy soils. In places there is fine loam over clayey soils with slowly permeable subsoil. This combination results in soils are generally nutrient-rich but poorly drained, prone to seasonal water logging, becoming sticky in winter and hard when dry. The reserve is gently sloping to the east. (Hallett et. al, 2017).

Climate

Wantage is in the Thames Basin, which is characterised by a continental climate with high summer temperatures and little wind exposure. Frost occurs on an average of less than 80 days per year. Mean monthly minimum temperatures of around -1°C occur in February. Mean monthly maximum temperatures of around 26-28°C occur in July.

Hydrology

Approximately 500m of the Letcombe Brook flows through the Willow Walk Nature Reserve. Fed by springs from the chalk aquifer at Letcombe Bassett and Letcombe Regis, the Letcombe Brook flows for 7½ miles (12km) through the Vale of White Horse where it meets the Childrey Brook, which flows into the River Ock and on into the River Thames. The Letcombe Brook chalk stream has been heavily modified over the years to accommodate housing, industry, roads and the railway, and in places it had been over-widened and deepened. The Humber Ditch joins the Letcombe Brook at the Willow Walk Nature Reserve. The upper catchment is permeable chalk, but the lower section transitions to impermeable clays, which increases the risk of flooding in Wantage, Grove, and the Hanneys during high-flow events. A lot of the nature reserve is located in Flood Zones 2 and 3, however there are areas where connectivity of the flood plain to the main Letcombe Brook can be improved.

Ecology

The South and Vale Joint GIS historical maps suggest that this site was grassland until 'Epoch 1955 – 1980' and by 1999 it was rapidly scrubbing up, a trajectory that is continuing. The site comprises a mosaic of habitats including willow woodland, rough grassland, tall herb vegetation and a central giant horsetail swamp. An embankment crosses the site towards the south, along the route of a buried pipeline. The Letcombe Brook chalk stream enters the site at the southern end, runs along its eastern edge until the northern third where it transverses the reserve.

Other than a 3-yearly water vole survey carried out by BBOWT, the site has not been routinely surveyed. Ad hoc biological records are held by the Thames Valley Environmental Records (TVERC) and the National Biodiversity Network (NBN) and a survey by Graham Hawker was carried out in August 2000. Appendix 2

lists species recorded on site drawn from these sources. A key part of the monitoring over the coming years will be to undertake regular surveys to build up a comprehensive species list for the site, so that changes brought about by the management interventions can be evaluated.

Habitats

Chalk stream

Approximately 480m of Letcombe Brook flows through the Willow Walk Nature Reserve (Figure 3). Brown trout are currently present, water voles have been recorded on site in the past (they were definitely present on site in 2025), and yellow flag iris is well established here.
The Humber Ditch, also a chalk stream (Chalk Rivers (England) © Natural England,) joins the Letcombe Brook at the Willow Walk Nature Reserve.

Swamp

A large willowherb, hard rush and pendulous sedge 'swamp' covers much of the centre of the site, comfrey is also abundant in this habitat. In the drier peripheral areas creeping thistle, common nettle and hedge bindweed are abundant and a number of ash are present. Other species present include hop and bittersweet. A few crack willow and hawthorn are present and there is a single guelder rose adjacent to the informal footpath (Figure 3). Underneath the ash in the centre of this area there is a large patch of creeping jenny. Within the willowherb area there are small patches of remnant wet grassland including along the path. Tufted hair grass, hard rush, hairy sedge, common couch, creeping bent, timothy and false fox sedge are abundant in these areas. Jointed rush is present along the path and reed canary grass and willowherb are abundant in the northern corner by the bridge over the brook

Sedge bed

A small patch of lesser pond sedge and reed canary is present but is being encroached on by bramble (Figure 3). There is a slight dip in the ground level at this point and consequently this area is wetter and there are two short stretches of boardwalk along the informal foot path. This area corresponds to a feature on a map from 1870 that could have been a channel.

Giant horsetail swamp

To the south-west of the willow herb swamp lies an extensive area dominated by giant horsetail (Figure 3.). This suggests that this part of the site is wetter than the adjacent willowherb. A few other species are present amongst the horsetail including comfrey, false fox sedge, hedge bindweed and a scattering of grasses.

Grassland

An area of remnant wet grassland is found at the northern edge of the swamp (Figure 3.). Meadow foxtail is the dominant grass whilst comfrey, hedge bindweed, tufted hair grass, false fox sedge, hairy sedge, and hard rush are abundant. Soft rush and water figwort, meadow vetchling and meadowsweet are also present.

There are patches of rough grassland and nettle dominated, tall herb on the drier parts of the site and adjacent to the paths, the embankments, in open areas next to the brook and in the southwestern corner of the site. The abundance of false oat grass, cock's-foot, Yorkshire fog and common couch distinguishes these areas from the wet grassland. There is a typical range of associated species including common nettle which is often abundant, hogweed, cleavers, creeping thistle, creeping buttercup, hedge bindweed and cow parsley. Ryegrass, annual meadow grass and greater plantain are abundant adjacent to the paths.

The only closely managed amenity grassland on site is in Compartment 2, at the intersection between the formal footpaths (Figure 4.). Set within the amenity grassland is a 'meadow area' which is left unmown throughout the summer.

Willow woodland

A strip of willow woodland is found in Compartment 3, (Figure 4) adjacent to Letcombe Brook south of

the footbridge. The willows are a mixture of long-established pollards, old, coppiced stools and younger closely spaced single stemmed trees. Alder and self-sown ash are also present and a limited understory of elder, bramble and hawthorn are present. Much of the ground flora is dominated by common nettle and pendulous sedge; comfrey, hogweed, figwort, hedge bindweed, creeping buttercup, hedge woundwort, clustered dock and remote sedge are also present.

A large area of willow woodland is found south of the embankment in Compartment 6. Historical aerial maps show that a portion of this area was cleared in 2000. A drain runs through this area, emerging from under the Adkin Way housing development flowing through the willow woodland and joining the Letcombe Brook at what3words///masses.onto.skidding. This area is much wetter than the Willow Woodland in Compartment 3 and has standing water in the wetter months. Pendulous sedge and greater pond-sedge are abundant and water forget-me-not, brooklime, gipsywort, false fox-sedge and fools water-cress are also present.

Scrub and planted screening

There are patches of hawthorn scrub and bramble thicket scattered across the site (Figure 3). There is a particularly large bramble patch in Compartment 4 near the western entrances. A line of conifer (Thuja sp.) and beech (Fagus sp.) dominate the land between the brook and the informal footpath, opposite Elm Villas and Elm Cottages.

Figure 3. Habitat Map



Fauna

Reptiles and amphibians

Casual observations have been made including common frog and common toad which have been recorded in various locations across the site. It is likely that the site also supports a population of grass snake.

Birds

Casual observations of a range of bird species have included bullfinch, grey wagtail, little egret, red kite, kingfisher and moorhen. Several bird boxes have been installed over the years to provide additional breeding sites for birds.

Mammals

Two species of bat have been recorded using the site; common pipistrelle, and soprano pipistrelle. All species of bat are protected under both British and European legislation. It is likely that other species use the site. Further recording will be needed to determine the status of bats on the site and to identify any roosting sites. A number of other mammalian species have been recorded including Eurasian Water Shrew, hedgehog, muntjac deer, grey squirrel and fox. The presence of water vole and otter is regularly recorded on site and along Letcombe Brook.

Fish

Bullhead and brown trout have been recorded on site. The bullhead is a relatively adaptable species with a wide distribution and a preference for gravel-bed streams with riffle and pool sequences, wooded riparian zones or open chalk streams with abundant macrophytes, offering shade and refuges from predation and flow, lacking obstructions.

Invertebrates

Common species of damselflies and dragonflies are frequently recorded on site, including the common darter and the broad-bodied chaser. The nationally Scarce hoverfly, *Epistrophe melanostoma* has also been recorded on site.

4. Features of Nature Recovery Interest

Willow Walk has been highlighted as an area that "could become important for biodiversity" in the Oxfordshire Local Nature Recovery Strategy which recommends several potential measures which could inform management and future projects:

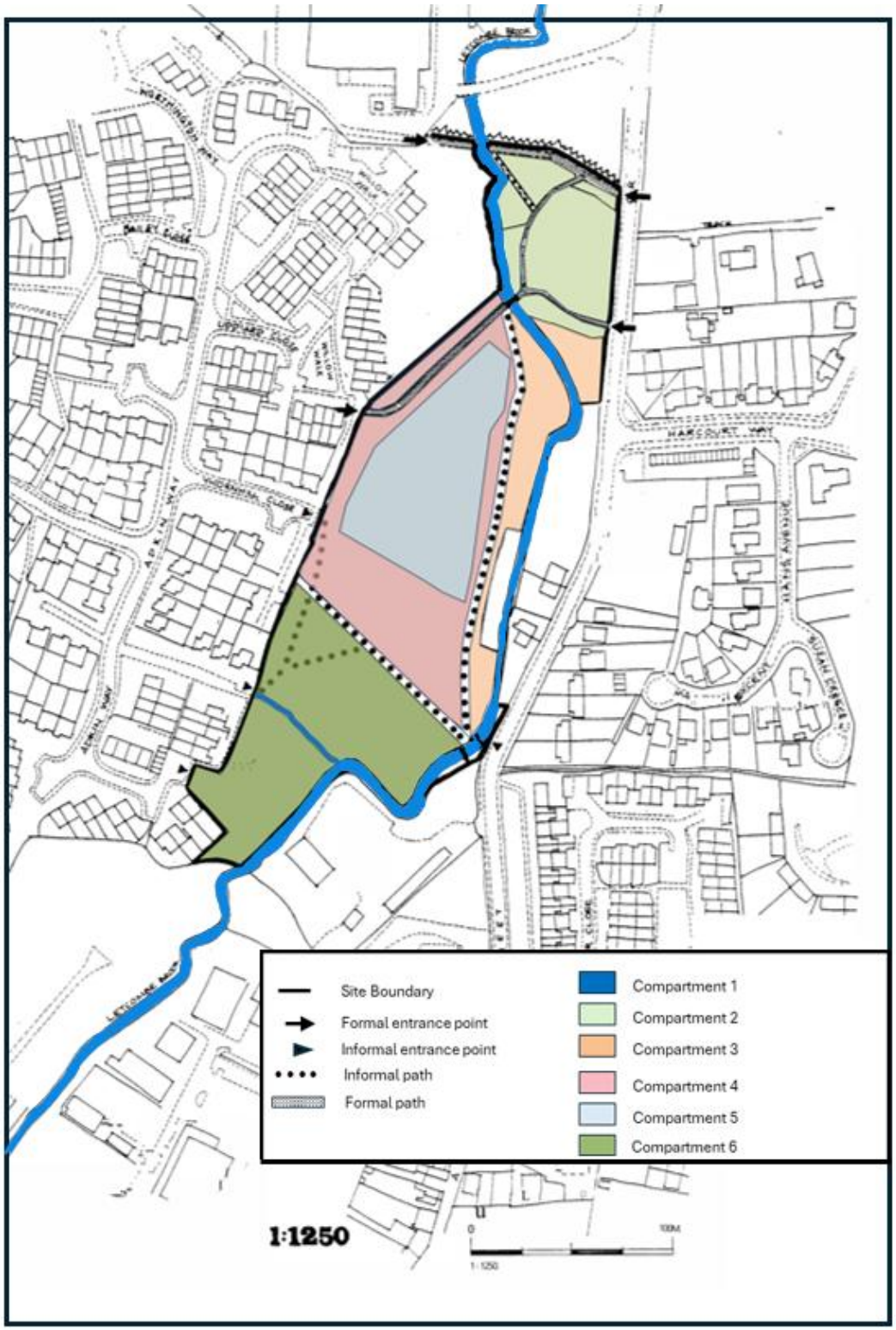
- Enhance, restore, or manage chalk rivers and streams to achieve (or maintain a good condition of) physical habitat and water quality PM ID: 48
- Manage (or enhance) riverside banks, ditches, and watercourses for Water Voles PM ID: 249
- Enhance existing woodlands to achieve a diverse structure and good ecological condition, suitable for the woodland type, age, and nearby species PM ID: 33
- Restore river diversity and manage rivers and their riparian (riverside) habitats to achieve good ecological condition that supports species PM ID: 42
- Create new, varied ponds in suitable locations across all habitat types to increase biodiversity and create more clean water habitats PM ID: 55
- Create and maintain fish passes or remove structures within rivers to enable fish to migrate and reproduce PM ID: 226
- Create and/or manage greenspaces and habitats in urban areas to enhance their condition to benefit wildlife, improve connectivity, and provide wider benefits PM ID: 76

In defining the overall features of nature recovery interest and the management objectives for the site it is necessary to look at the following factors; nature recovery interest, public use of the reserve, constraints on management and its urban setting and available resources. Taking these factors into consideration, five broad priorities for the future management of the site have been identified:

- Chalk Stream
- Swamp /tall herb/scrub mosaic
- Woodland & wet woodland

- Grassland
- Visitor Enjoyment & Public Access

Figure 4. Management Compartment Map



Chalk Stream (Compartment 1).

Evaluation

Letcombe Brook, classed as a main river by the Environment Agency, plays an essential role within the Ock Catchment providing natural flood control and maintaining biological diversity. It is vulnerable to growing land-use pressures (e.g. housing, agriculture) and environmental change (e.g. flash flooding of increased short high rainfall events). Modification for agricultural land drainage and urban development

has resulted in unnatural flow and elevated temperature that have significant implications for biodiversity and flood and drought control further downstream. The linear nature of water courses exposes them to a varied and cumulative range of pollutants, including nutrients, pesticides, heavy metals, sediment and emerging contaminants. Water courses are also vulnerable to invasions of non-native species, which along with the physical and chemical pressures, will affect many groups of organisms with consequent implications for wider biodiversity within the catchment (Riley et al., 2018). Letcombe Brook is no exception, under the Water Framework Directive its ecological health is classed as Poor (Ecology Map The Rivers Trust).

Current status

Letcombe Brook flows from south to north through Wantage with approximately 480m flowing through the Willow Walk Nature Reserve. The Vale does not own both sides of the bank throughout the site, instead is responsible for approximately 151m of the eastern bank and 393m of the western bank, with a short stretch (73m) at the centre of the site where both banks are council owned. The Humber Ditch chalk stream enters the brook via an under-road culvert at what3words///relaxed.scarecrow.jogged. A drain emerges from under the Adkin Way housing estate and flows through the willow woodland (Compartment 6) and joins Letcombe Brook at what3words///masses.onto.skidding. Several road run-off drains from Grove Road enter the brook along its course. Generally, it is a shallow stream (20cm) less than 3m wide with predominantly steep banks and a variety of bottom substrates. Most years there is a good year-round flow of water but the brook is not connected to its floodplain on this site and rarely spills over its banks to flood the site.

Aquatic and marginal vegetation such as watercress and fool's watercress, feature at points along the toe of the bank, with yellow flag iris, brooklime, water mint, water forget-me-not, gipsywort and water figwort also present in brighter locations. The banks downstream and adjacent to the footbridge are closely managed and frequently accessed by people and dogs and therefore feel more open in nature. Upstream of the footbridge the vegetation becomes wilder, and the stream is more enclosed, with both banks supporting extensive patches of bramble, scrub and trees including willow, alder, ash and hawthorn which shade the stream. In places trees and bramble bridge the brook. This habitat structure does provide shade and can help to prevent extremes of temperature in a small stream. The trees, scrub and dead wood provide niches for fungi and invertebrates, such as caddisflies which benefit from structure and food provided by submerged leaf litter and deadwood. However, waterside trees and scrub are not always beneficial; too much shade can inhibit the growth of aquatic and marginal vegetation, which can result in a loss of aquatic plant biodiversity and reduce oxygen levels within the water, as well as indirectly negatively impacting on species such as water voles. It can also make the site unsuitable for warmth-loving invertebrates. Fallen trees within the stream are generally beneficial features, but they can accumulate sediment and litter and cause scouring of banks.

Water voles are recorded on site and are known to exhibit strong habitat and forage preferences amongst riparian vegetation, selecting sites with grass tussocks and emergent plants, while avoiding sites closely cut, trampled or over shaded by dense scrub/trees (Strachan et al. 2011). Above ground, the water vole's activity is largely confined to runs in dense vegetation within 2-5m of the water's edge.

Factors and Constraints

Positive Factors:

- Remedial action to increase the amount of light to the brook is relatively straight forward.

Constraints:

- Water quality and species diversity can be affected by surface run-off from the local catchment; the site is surrounded by urban development
- No ability to control water levels
- Invasive non-native species – e.g. monkey flower is present up-stream and seeds can be deposited

on-site especially during flood events. Other invasive species are also easily transferred by people and animals.

Management Objectives

To conserve and enhance the ecological integrity of the chalk stream so that:

- a balanced level of shading from trees is maintained
- the remaining trees are in good health and low risk to public safety
- native aquatic and marginal vegetation is encouraged.
  connectivity between aquatic and riparian habitats is enhanced.
- habitat complexity for invertebrates, fish, birds, and mammals increased
- invasive non-native species are controlled
- connection to floodplain is improved
- an increase in water vole signs (burrows, latrines and feeding) along the bank are observed.

Management Rationale

The chalk stream at Willow Walk will be managed by:

- Coppicing and pollarding bankside willow and ash trees
- Managing bankside vegetation on rotation
- Monitoring and managing instream woody debris.

Coppice and pollard bankside willow and ash trees as a one-off (Winter 2026/2027/2028) **and then on an 8-10 year rotation.** Retain alders and selectively pollard mature and previously pollarded willows. Coppice younger willows. All cut stools will be left to regenerate creating a varied structure of bankside vegetation from new growth, with emergent bankside vegetation, through to 8–10-year-old willow coppice (before the rotational management starts). Some of the arisings can be placed under any remaining trees away from the edge of the brook or used to create a linear dead hedge, running parallel to the brook (>2m from the stream banks) to reduce access to the stream banks and disturbance from people and dogs. Manage levels of shading from vegetation so that along the Willow Walk stretch of the brook there is:

- 30% shade
- 40% open
- 30% dappled shade

Manage marginal and bankside vegetation. There are approximately 544m of bankside on site. Woody vegetation and brambles will be managed on a rotational basis to reduce their dominance and subsequent re-establishment. It is important when undertaking work in this area that care is taken not to damage water vole burrows. Ideally most work along the bankside should be carried out during winter months (Oct-Feb) as water voles spend much of their time underground during this period.

A late cut on a 4-year rotation will stimulate a rich grassy sward along the stream bankside, providing plenty of food and cover for water voles. Cutting height should be set to retain 10-15cm of vegetation and leave a strip of vegetation at the toe of the bank and in the water. Remove brambles by the roots using tree poppers. Rake off arisings and pile away from burrows or areas of more species diverse vegetation. Manage so that at least 75% of the stream has marginal and emergent vegetation coverage of rushes, sedges or reeds.

Small sections should be cut at any one time, especially around the main area of water vole activity. In the central section, where both sides of the brook are covered in this plan, cut only one bank in any one year.

Hinge trees and reinstate in-stream logs – Until Spring 2026 in-stream logs were present along the Willow Walk stretch of the brook. In-stream logs should be reinstated at strategic locations to increase in-channel biological complexity and niche availability, hold back the flow in periods of high flow, and encourage overspill particularly in to Compartments 4 and 5 which will retain and slowly release water.

Monitor in stream logs and woody debris. These are generally considered beneficial and will be retained in situ unless they are deemed to be causing a flood hazard or causing excessive erosion and undercutting of the bank through the deflection of the current.

Management Activities

- Coppice and pollard bankside willow
- Re-pollard and coppice willow on 8 -10-year rotation
- Stack arisings under any remaining trees away from the edge of the brook
- Cut and rake bankside vegetation on a 4-year rotation.
- Install in-stream logs
- Monitor in-stream blockages and remove if necessary
-

Monitoring Activities

- Continuous pollution monitoring. All incidents should be photographed, recorded and reported to the EA
- Monthly River Fly Monitoring (coordinated by Letcombe Brook Project)
- 3-yearly water vole survey (coordinated by BBOWT)
- 3-yearly River Habitat Survey (RHS) (coordinated by Letcombe Brook Project TBC) between May and end of August every 3 years to quickly assess the river's character and habitat quality.

Grassland (Compartment 2)

Evaluation

The ecological value of amenity grassland varies depending on how it is managed. Frequently mown grass will offer little opportunity for nature, whereas grassland with low intensity management is ecologically valuable and tends to support a higher diversity of associated fauna, particularly invertebrates. In turn, the high diversity of insect life increases the value for larger foraging species, such as birds, bats, reptiles, small mammals and hunting owls. Where it exists, without some form of management (grazing or cutting) the floral value is quickly lost as invasive scrub such as blackthorn and bramble encroaches, and eventually it turns to woodland. Most of the council's amenity grasslands currently have little biodiversity value but they can offer significant potential for nature recovery.

Current status

Compartment 2 incorporates the bridge over the brook, the intersection of four footpaths, a bench, a rubbish bin and the interpretation board. Unsurprisingly, it has the site's highest footfall and is a popular meeting point where, in the summer. The amenity grassland on site has historically been mown eight times per year by Vale's Grounds Maintenance Team. In 2024 a portion of this area (980m^2) was put into meadow management and has been designated a 'Meadow Area'. The dominant species is rye grass, with the occasional dock and thistle. There is an attractive hawthorn tree in the middle of the meadow area. Until Winter 2025/2026 there was a dense stand of scrub and bramble adjacent to the Grove Road which was cut back by the Letcombe Brook Project volunteers in early 2026 to prevent it encroaching any further onto the meadow area.

Factors and Constraints

Positive factors:

- The meadow area is easily accessed and is small enough to be managed by volunteers with hand tools.
- The area offers a significant and manageable opportunity for enhancement.

Constraints:

- There is little species diversity and the ground is compacted.
- The area is well used which is likely to reduce the establishment of some species.

Management Objectives

To maintain the area as a combination of amenity grassland and meadow. To increase the diversity of species of the meadow area through seeding and appropriate management so that there is a:

- Minimum 35% cover of wildflowers within the sward (excluding undesirable species)
- Control of undesirable species, including creeping thistle, broadleaved dock and shrub seedlings or saplings within the meadow.

Management Rational

Meadow area is managed by:

- Twice annual cut
- Hand control of 'weeds'

The area is managed as a summer meadow allowing the plants to flower over the summer. Cut in April to knock back the faster growing grasses which would dominate otherwise. The meadow area will be cut at the end of August/early September after the flowers have seeded. The arisings in both cuts will be raked off so that they do not smother the plants or increase fertility.

During the summer it may be necessary to hand pull the taller coarser plants that can dominate, particularly thistles, broad-leaved-dock, ragwort and common nettle.

Management Activities

- Cut meadow in April and the end of August/September depending on the weather and rake all arisings onto a habitat pile on site.
- Introduce wildflower species through over seeding in September as funding allows.
- Control weeds, such as docks and thistles by hand pulling when necessary.
- Bramble and scrub control

Woodland / Wet woodland (Compartments 2,3,4,6)

Evaluation

Wet woodland occurs on poorly drained or seasonally wet soils, usually with alder, birch and willows as the dominant tree species, but also including other species such as ash and oak on the drier areas. The boundaries with dry woodland can be sharp or gradual and may change with time through succession, depending on the hydrological conditions and the management of the wood and its surrounding land. Therefore, as in this case, wet woods frequently occur in a mosaic with other woodland habitats and with more open habitats. Wet woodland combines elements of many other ecosystems is important for many taxa; the conservation value and importance of wet woodland is recognised by its designation as a Priority Habitat. For example, higher humidity can favour bryophyte growth and there are invertebrates exclusively associated with alder and willows, eg lunar hornet moth. Dead wood within wet woodland is especially valuable because the constant moisture slows decay. Waterlogged dead wood supports fungi, beetles, flies, mosses, liverworts, and other organisms that depend on damp decaying timber. Many of these are highly specialised and are largely restricted to wet woods. Soft, rotting trunks are easier for birds to excavate. Species like willow tit and lesser spotted woodpecker use dead wood for nesting cavities, while bats use cracks and hollows in standing dead trees as roosts.

Current status

The South and Vale Joint GIS historical maps suggest that this site was grassland until 'Epoch 1955 – 1980' and by 1999 it was scrubbing up. Aerial photos show that between 2000 and 2004 there had been extensive clearance of trees south of the stink pipe in Compartment 6.

The woodland at Willow Walk is young, secondary woodland, much of which is 30 – 60 years old. Willow, alder and ash dominate the canopy through compartments 2, 3 and 6, with an understorey of willow, elder, bramble and hawthorn. The whole site has been managed with minimal intervention, is in poor condition and lacks structural diversity. The ground flora is dominated by pendulous sedge and lacks diversity but is in keeping with this type of woodland.

There are many collapsed willows, overgrown pollarded willows, dead or dying ash trees, hung up trees and fallen trees on site. Whilst there are many ecological benefits to a relaxed approach to woodland management and dead wood in a nature reserve, the council also needs to acknowledge that it can give an impression of neglect and lack of pride in its asset. There is currently no tree management plan for the site.

Factors and Constraints

Positive factors:

- Many of the trees provide valuable habitat for nesting birds, roosting bats, invertebrate fauna and fungal flora
- Many of the trees are young and have a considerable potential life span
- Over time the trees within the woodland and wet woodland will continue to mature, growing older and eventually dying. This leads to the natural process of gap creation and tree regeneration.

Constraints:

- There may be an initial outcry over the tree work which will have to be carried out in to prolong the healthy life of some of the trees, and on grounds of health and safety. This can be mitigated by good communications.
- Bat surveys of trees or limbs will need to be conducted before any works are commenced.
- Tree surgery required for health and safety reasons will reduce the amount of standing dead wood and may also destroy nesting sites for birds.
- Lying deadwood provides a key habitat but also material for unauthorised fires on site.

Woodland and Wet Woodland Objectives

- Risk posed by trees to the public is managed
- Achieve good woodland structure and composition
- Willows are pollarded to <2m to enable future management by volunteers and the council's grounds maintenance team, rather than contractors.
- Deadwood is retained on-site in discreet habitat piles
- There are no non-native conifers on site
- A good coverage of typical woodland and wet woodland ground flora species (e.g. at least 20% cover)
- Species such as nettles/bramble/ivy/ are not dominant (e.g. Less than 20% cover of these species)
- A healthy understory

Management Rational

Tree safety works – many of the footpaths are bordered with trees. These should be kept clear and monitored for unsafe trees; tree safety survey is the responsibility of VWHDC Tree Officer. Non-emergency tree surgery and felling should take place October to February, outside of bird breeding season and when the trees are dormant.

Managing for Woodland Structure and Composition through:

- **Pollarding/coppicing willows** – It is never too late to bring willow pollards into management; however, it is important not to re-pollard all of the willows at the same time. Pollarding should take place on a rotational basis, approximately every 5-8 years, so that any invertebrates associated exclusively with branches and twigs are not completely lost from the reserve. Trees are ready to pollard when the branches are 100 -150mm in diameter. All cut material should be stacked at the base of the tree as a habitat pile. Initial pollarding will be carried out exclusively by contractors to get them into good condition and at a height of <2m so that the next cycle can be carried out by volunteers using bowsaws and pole saws.

- **Controlling invasive species:**
  Willow Walk is a nature reserve and should comprise native species. Garden plants, non-native invasive species and native plants can all pose a threat to nature. Being an urban site, it is occasionally subjected to fly tipping of garden waste and rogue planting.
  - Garden plants should be removed as quickly as possible by whatever means necessary.
  - Himalayan Balsam is a highly invasive flowering plant, which has spread rapidly throughout the

UK since its introduction in 1800s. It has shallow roots, so can be pulled easily by volunteers.

- Pendulous sedge (*Carex pendula*) is present on site and is the dominant ground cover in the southern end of Compartment 4 and the whole of Compartment 6. It is a natural component of the ecosystem and helps stabilise soil and riverbanks, supports insects, and contributes to plant diversity. However, it can very quickly form large, dense tussocks that can outcompete smaller, less robust plants, reducing local biodiversity. Large clumps can be difficult to remove so it should be kept in check by cutting off flower spikes before seeds ripen (late spring to summer) and pulling young seedlings early — they come up easily when small but can become tough once established.

- **Retaining deadwood** - Dead wood provides a very important habitat for many invertebrates and fungi and is an integral part of any healthy woodland and wet woodland. When trees need to be reduced in height for safety reasons as much as possible should be left as standing deadwood. The majority of the other logs are left on site to provide deadwood habitat. Where possible, dead branches should be left on trees if they are deemed unlikely to affect the health of the tree or pose a threat to public safety. Felled material should be cut into logs, as large as practically possible and stacked on site as habitat piles. Piles (2-3m across maximum) should be created in dappled shade within the woodland, and on areas where the flora is least diverse and they can maintain moist, stable conditions in their interiors. Finer brash should be added to the dead-hedging or piled separately in a few large piles rather than lots of smaller ones. If several piles are created, they should be placed in different situations and with different aspects. If piles of brash and timber on site become excessive, or extraction is difficult then chipping is preferred to burning, given proximity to homes and roads.

- **Removing non-native conifers** – *Thuja* is a non-native conifer commonly planted for screening but has limited ecological value within a nature reserve setting. Its dense evergreen canopy casts heavy shade year-round, reducing light levels and suppressing aquatic plants that support insects, fish, and other wildlife. Chalk-stream ecosystems are adapted to alkaline, calcium-rich conditions. Thuja foliage and litter tend to be more acidic than the leaves from many native broadleaved species. Heavy accumulations of conifer litter can alter soil conditions, and in this case has eliminated all ground flora. 79m of Thuja and beech trees have been planted opposite Elm Villas and Elm Cottages, adjacent to the Letcombe Brook. Their removal will increase light levels to the brook and allow native trees, shrubs, and wildflowers to establish on the adjacent grassland. Felling should be undertaken outside the main bird nesting season where possible, following checks for protected species.

- **Minimal tree planting** – the majority of tree works will be coppicing and pollarding, with very little felling. If tree felling is necessary and replacements deemed appropriate then native species identified in the LNRS, such as black poplar should be prioritised. Any newly planted trees should be protected with tree guards to prevent damage by muntjac.

- **Non-Intervention where appropriate** – There is an opportunity for non-intervention in Compartment 6, south of the Adkin Way drain, where there are no footpaths or neighbouring properties. The area is predominantly willow which could be allowed to naturally decline, creating seasonal pools under their exposed root plates.

Management Activities

The woodland will be managed by:

- Tree safety works
- Rotational pollarding and coppicing of willows.
- Felling Thuja in Compartment 3
- Retaining dead wood as on-site habitat piles
- Controlling garden species and invasive species by digging and pulling

Monitoring Activities
Carry out woodland/wet woodland rapid assessment between April and May every 5 years (aims to quickly and simply assess the condition) to monitor for:

- Rogue planting and garden escapees
- succession and structure within the woodland
- composition of ground flora, including pendulous sedge survey

Swamp /tall herb/scrub mosaic (Compartments 4 and 5).

Evaluation
Swamp/tall-herb/scrub mosaic with a mix of vegetation structures, can provide an important habitat for a variety of invertebrate species, whether wet or dry. Bare ground and a short sward can provide basking, nesting and foraging areas for invertebrates and dense sedge and grass tussocks provide protection from extremes of temperature and humidity and predators; scrub is an important habitat providing cover, shelter, nesting and feeding opportunities. Scrub in close association with woodland and grassland, form complex mosaics which are particularly valuable for a variety of reptiles, amphibians, birds, mammals and invertebrates.

Current status
This site sits on slowly permeable seasonally waterlogged clayey soils, becoming wet in winter, staying wet as long as rain persists and drying out in the summer. The South and Vale Joint GIS historical maps indicate that this site was grassland until 'Epoch 1955 – 1980' and by 1999 it was rapidly scrubbing up, a trajectory that is continuing. There are still remnants of a wet grassland community on site. The central wetter area (Compartments 4 & 5) is made up of three broad parts; the northern side sits damp rather than wet where meadow foxtail is the dominant grass and comfrey, hedge bindweed, tufted hair grass, false fox sedge, hairy sedge, and hard rush are abundant, and a large patch of goldenrod is present. Other species present include false oat grass, common nettle, great willowherb, cleavers, creeping thistle, soft rush and water figwort. The eastern side is predominantly greater willow herb with hard rush, water figwort and comfrey and a second large patch of golden rod is present. There is a slight dip in the ground level at the eastern edge and consequently this area is wetter, requiring two short stretches of boardwalk along the informal footpath. A small patch of lesser pond sedge and reed canary grass is present here but is being encroached by bramble.

In the drier parts (Compartment 4) bramble, creeping thistle, common nettle and hedge bindweed, comfrey and hard rush are abundant, hop and bittersweet are also present. To the south-west of the willowherb bed lies an extensive area dominated by giant horsetail and pendulous sedge. This suggests that this part of the site is wetter than the adjacent willowherb. A few other species are present amongst the horsetail including comfrey, false fox sedge, hedge bindweed and some grasses. The whole central area (Compartments 4 & 5) is dotted with scrub, comprising hawthorn, willow species, elder, and extensive patches of bramble and a solitary guelder rose

Whilst the mosaic is not of major botanical significance at Willow Walk, the structural variation it provides creates a range of habitats for birds, invertebrates, fungi and lichens and provides seasonal rain-dependent wetland habitat. The benefits of this habitat could be amplified if it remained wetter for longer.

Factors and Constraints
Positive factors:

- The open nature of this area offers the opportunity for the creation of some shallow scrapes and ponds.

Constraints:

- Access to the area might be tricky and will restrict the size of the equipment used for pond and scrape creation.
- Opportunity to deposit dug material on site is limited and some may need to be transported off-site.

- Rapid encroachment by willow scrub will need to be prevented to avoid shading and draining (through transpiration) of the more open species-diverse areas.
- Invasive non-native species – Canadian golden rod is already present in two locations. Seeds of other invasive non-native species e.g. Himalayan balsam can be spread around the site, especially during flood events.
- Manual vegetation management is hard work and time consuming.

Management Objectives

- Increase open nature of central area
- Address tree health and risk to public safety
- Restrict access by people and dogs to Compartment 5
- Eliminate goldenrod
- Create ponds and scrapes
- Improve diversity of sward

Management Rational

Scrub reduction and management

Compartments 4 and 5 contain mainly ash, willow, hawthorn and bramble, which is valuable habitat for breeding birds and insects, but needs managing to prevent spread onto the valuable open area. Controlling scrub encroachment in an open wetland area is essential to maintaining the ecological balance and biodiversity of the habitat. Dense scrub can alter soil moisture levels, increase shading, and accelerate succession toward woodland, resulting in the loss of characteristic wetland species and habitats. Scrub management helps preserve open conditions, supports a wider range of wildlife, improves hydrological function, and ensures the wetland continues to provide important ecosystem services such as flood storage, water filtration, and carbon retention.

Tree work

There are some large willows which need pollarding to prevent them from becoming overgrown and splitting and some high pollards that need lowering. All pollarding will be done to a height of <2 meters that will allow future management, on a roughly 10-year rotation, to be carried out by volunteers and Vale Grounds Maintenance staff. The willows that have already collapsed need some remedial work to prevent lateral limbs rooting and encroaching into more open areas. Where appropriate dead, fallen trees will be left intact, otherwise they will be cut up and consolidated into piles at the base of the tree as a habitat pile. Willow growth should be managed through coppicing on a 3-year rotation, but if encroachment into this area increases, and the willow starts to dominate, then stumps will be pulled or treated to prevent re-growth.

Dead hedging to discourage access to compartment 5 by people and dogs

To reduce access to the central sensitive swamp area and minimise disturbance, a natural physical barrier in the form of a small dead-hedge along the boundary with the footpath and Compartment 4.

Wooden rods can be hammered into the ground and lengths of woody material generated on site, such as hazel and willow are woven together and the hedge bulked out with brash. As the material decays, it needs to be replaced to maintain the strength and effectiveness of the barrier. This work is best done once the vegetation has died back which allows better access to the dead-hedge and visually it can be seen which lengths need to be replaced. The work should also be timed so that it takes place out of bird nesting season as the dead hedge may be used by birds for nesting.

Eliminate goldenrod

Goldenrod is a non-native species which is spread by rhizome and by wind born seed. It can quickly out-compete native plants in sensitive habitats such grasslands, meadows and alongside riverbanks. Dense infestations along waterways can impede flow and increase flood risk and erosion. Cutting twice per year over several years (May and August) *can* reduce infestations by preventing seed production and depleting the rhizome. The most effective method is to excavate rhizomes, ensuring that lateral roots are removed, excavated material must be disposed of offsite.

Create ponds and scrapes
There are currently no ponds on site and what may have been scrapes have become shallow depressions. The creation of new ponds is a cost-effective way to increase ecosystem services through habitat provision, flood storage, water filtration, and carbon retention (Williams et al., 2004). The creation of new scrapes will provide seasonal habitats for wildlife and increase flood storage, particularly if the brook is reconnected with the flood plain through strategic placing of in-stream logs.

Sward management
Through scything, seeding and plug planting this area could support much wider range of plant species and if the area was to become wetter for longer through the creation of ponds and scrapes the wet grassland could become more extensive and of higher quality. The tall herb vegetation should be scythed on a 3-year rotation creating a mosaic of different successional stages. All arisings should be raked off into habitat piles to ensure the vegetation has the best chance of flourishing in the absence of shade and thatch. Any willow, hawthorn and bramble growth in this area should also be cut on the same rotation. Once the ponds and scrapes have been created, the golden rod removed and no further mechanical interventions are needed then a program of introduction of appropriate native wetland herb species by seeding and plug planting can be implemented. To maintain this enhanced plant diversity this area will need to be managed by scything in late summer. Late scything allows plants to shed seeds and insects to complete their life cycles. To maintain low fertility, the cut arisings should be raked and stacked in compost heaps to the west of the site, away from ponds and watercourses to avoid nutrient leaching.

Management Activities
- Pollard large willows; re-pollard on a 5-8-year rotation
- Remedial work on collapsed willows
- Develop plans for pond and scrape creation and implement once funding is secured.
- Eliminate goldenrod by mechanically digging out.
- Cut and rake tall herb vegetation on 3-yearly rotation
- Cut and remove willow saplings on 3-yearly rotation
- Build up dead hedging along the boundary between the footpath and Compartment 4.

Monitoring Activities
- Annual botanical walk over survey to include monitoring for invasive non-native species.

Visitor Enjoyments and Public Access
Visitor Enjoyment Objectives
Visitors to the site have a positive experience and engage with nature in safe and responsible fashion. Interpretation of the site and its wildlife is clear and concise in a language that is accessible to all, with up-to-date content. Site infrastructure will be in good condition and safe to use.

Current Status
Visitor Access
There are four official access points to the site, two from Grove Road on the east and two from the Adkin Way estate to the west. A surfaced permissive path links them through the site, crossing the Letcombe Brook via a bridge. An informal peripheral footpath with three informal access points has evolved in the southern half of the site which becomes boggy in places in winter months and is often completely underwater in places during the winter.

Bridges and board walks
The site is seasonally wet and has a chalk stream flowing through it. There is a bridge over the brook, and

three board walks over well-frequented wetter areas are present to allow access. All three are composed of wooden decking, supported by steel joists and concrete pads at either end. The main bridge over the Letcombe Brook at ///reacting.eased.magnets needs re-decking and new hand rails. The board walk over a depression at ///crash.things.bluffing is currently taped-off owing to its poor condition and needs refurbishing. The two small board walks at ///comic.upsetting.lifelong and ///apprehend.twee.pints were refurbished in spring 2026.

Interpretation
There is a lectern style interpretation panel near the footbridge which was installed in 2000. The frame is sound but the artwork looks tired and should be updated to include: the name of the reserve, VWHDC and Letcombe Brook Project branding, no fishing, clean up after your dog and take litter home, plus a map with clearly marked paths and contact details for VWHDC (website, phone, email). The reserve's interesting ecology should be highlighted with pictures and text.

Maintenance
Regular litter picks are carried out at Willow Walk by Letcombe Brook volunteers, and VWHDC Grounds Maintenance staff. One litter bin is provided for people's convenience in Compartment 2, next to the bridge and the interpretation sign, this is emptied weekly by VWHDC. Footpaths are mown monthly between March and October by VWHDC Grounds Maintenance Team.

Factors and Constraints
Positive
- General attractiveness of site and engaged local population.
- Potential for a good range of quality habitats on the site to engage visitors.

Constraints
- Some forms of interpretation could be visually intrusive and conflict with the landscape and setting.
- Vandalism to interpretation panels, bridges, boardwalks, benches etc.
- Anti-social behaviour such as camps, bonfires, litter.

Management Activities
Public access and interpretation at Willow Walk will be managed by:
- Maintenance of access points when required
- Maintenance of visitor furniture e.g. bridges as and when required
- Keeping the informal peripheral path around the site clear of fallen branches and mown throughout the summer months.
- Regular litter picks carried out by the Letcombe Brook Project Volunteers.
- Interpretation board should be checked and cleaned regularly and updated when there are significant changes on-site.
- Emptying the dog bin at approx. ///menu.crunches.walnuts by the tarmac path in Compartment 4
- Emptying the litter bin at //lifters.snuck.fall between the two benches in Compartment 2
- Site risk assessment carried out every as per the site risk assessment.

A table of management and monitoring activities is summarised in Appendix 1.

Legal Responsibilities and Obligations

Protected Species Legislation

Many species are protected by law. This does not have to pose a problem for conservation work, which is aimed at protecting habitats and species. It is essential that VWHDC remains both legal and demonstrates best practice. Most species are legally protected from standard activities including being disturbed, injured, killed, sold, up rooted, or having their 'shelter/home' disturbed or damaged. The main pieces of legislation which protect species are:

- The Wildlife and Countryside Act 1981* (as amended)
- The Badger Act 1992 (not currently recorded at willow walk).
- Wild Mammals (Protection) Act 1996
- European Habitats Directive 1992 (The Conservation of Habitats and Species Regulations 2017 (as amended))

Trees

None of the trees are protected by tree preservation orders and the site is not within a Conservation Area

Occupier's Liability Acts

This Act imposes an obligation on all occupiers of the land, to ensure that every reasonable care is taken to remove any risk both to visitors and trespassers.

Health and Safety at Work Act 1974

All operations carried out on site must be undertaken by trained personnel using methods and equipment approved by the Health and Safety Executive, and also in compliance with national and local safety procedures. This obligation is extended to ensuring compliance by contractors working on the site.

Health and Safety Responsibilities

Review site risk assessment

A site risk assessment is required to ensure compliance with statutory and organisational health and safety procedures. In the UK all organisations which employ staff on sites, or provide public access to sites, must complete a detailed risk assessment or audit of the site. All potential dangers or threats on the site must be identified. All the implications for the health and safety of visitors are considered, and then controls, if necessary, are established and applied. Access to any site may be restricted by the presence of hazards. In extreme circumstances, there may be an obligation to close parts of sites, or even entire sites. In most instances, it will be possible to take remedial action to remove or isolate the risk and ensure visitor safety.

The Willow Walk Nature Reserve site risk assessment is the responsibility of the Grounds Maintenance Team.

Carry out tree safety work

The condition of trees on the reserve in relation to health and safety should be regularly reviewed and any safety work identified carried out. VWHDC has a Tree Officer who carries out an annual tree safety survey and organizes any required works, with additional works being undertaken as and when necessary to maintain the safety of the site.

Site Infrastructure and Administration

Maintain site boundaries

It is important that site boundaries are maintained in their exact positions so that there is no chance of boundary disputes with neighbours. If fences are removed, the exact position of the boundary should be recorded.

Roadside scrub and trees should be maintained in such a way that the growth does not interfere with passing vehicles or pedestrians. Boundaries which border roads, footpaths or private properties should be checked for dangerous trees by the VWHDC Tree Officer.

Establish/maintain good relationships with neighbours

Willow Walk is not an isolated patch of land but is bordered on three sides by highways, private homeowners and businesses and periodic contact with our neighbours is important. Work that we carry out may have impacts beyond our boundaries, most often these will be visual, but there may also be practical implications such as noise, alteration to drainage, access and bonfire smoke. Without warning or discussion with neighbours, these could become negative and lead to a poor opinion of VWHDC created. Good communication of our objectives may also help to protect green spaces, if our neighbours can be persuaded to adopt sympathetic land management on their boundaries, to buffer the habitats on our land. Good lines of communication with neighbours will also help in the resolution of problems if they arise. The Letcombe Brook Project plays an important role in this.

Liaison with neighbours should take place when planning significant tree work, pond creation or any work along common boundaries such as fencing or tree safety work. More general regular contact could also be useful, even if there is no specific issue to discuss, just for the purposes of maintaining lines of communication. Records of communication should be noted with the Strategic Property Team, and copies of letters or emails retained. Contact details for key neighbours are retained by the council's property team.

Environmental Sustainability

The Nature and Climate Action Plan 2025-29 presents a list of actions that will help the council achieve the aims of driving nature's recovery, cutting carbon emissions and creating a culture of sustainability through our operations. With support from the Letcombe Brook Project, VWHDC seeks to manage Willow Walk Nature Reserve in the most sustainable way. The key actions relevant to the sustainable management of the site are:

- Biodiversity protection and enhancement and climate adaptation
- Sustainable procurement
- Carbon reduction
- Waste management pollution reduction

Biodiversity Protections and Enhancement

The primary aim of site management is for protection and enhancement of biodiversity and climate adaptation. This management plan sets out how this will be achieved.

Sustainable Procurement

The management of the site does not require large scale or regular procurement of goods or services; however, we will always take a climate-centred approach into all scales of procurement, and seek to obtain goods and services from local, sustainable sources. Examples of this include the purchase of timber products from local suppliers.

Carbon Reduction

We reduce carbon emissions by seeking to switch from fossil fuels wherever possible, this includes the vehicles and tools used by the Ground Maintenance team.

The main factors contributing to carbon emissions are the use of contractors, travel to and from the site-by-site managers, volunteers and visitors. The Vale's in-house Grounds Maintenance Team has classified the footpaths as Category D Grass (Green space, road corridors, verges and non-amenity land) and cuts them eight times per year. The Grounds Maintenance Team are based either in Crowmarsh Gifford or Abingdon and visit the site eight times annually, mainly in the summer months combining visits with other work on areas of council owned land in Wantage. The level of carbon emissions from maintenance operations is therefore relatively low and will reduce as vehicles are replaced with the most suitable low carbon options.

Waste Management
There is a risk of fly tipping and dog fouling on the reserve. One dog bin is installed in Compartment 4, and one litter bin is provided on site in Compartment 2 between the two benches. Ideally, this should be re-sited, away from the benches to prevent unpleasant odors.

Litter tends to accumulate in temporary camps associated with collapsed willows and in the brook behind in-stream branches. Litter is collected routinely by the Grounds Maintenance Team and by the Letcombe Brook Project volunteers during work parties.

Pollution Reduction
Pollution risk from fuels or other routes related to management work are managed through task risk assessments with mitigation to reduce the risk. For example, the use of herbicides on the site is strictly controlled and avoided, when possible, in favour of non-chemical control (manual removal/ hand pulling) unwanted/invasive plant species. Any herbicide application would be carefully controlled and undertaken by licensed members of Grounds Maintenance Team so that the likelihood of pollution occurring is minimised.

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Strachan, Moorhouse, and Gelling (2011) Water Vole Conservation Handbook

Appendix 1. Summary Table of Management Tasks & Monitoring Activities

Compartment	Location	Task	Task Frequency: One-off/ Annual/ Continuous	Who	Detail	When
1-6	Whole site	One-off tree safety survey. Identify and record dead & dangerous trees.	O	VWHDC (contractor)	To be carried out by a contractor in 2026	Jan-Dec
1-6	Whole site	Annual tree safety survey. Identify and record dead & dangerous trees.	A	VWHDC tree officer		Jan-Dec
1-6	Whole site	One-off tree safety remedial works to get trees into safe and good condition.	O	VWHDC (contractor)	To be carried out by a contractor in 2026/27 and the Vale tree officer's team thereafter	Jan-May
1-6	Whole site	Continuous tree safety remedial works to maintain trees in good and safe condition	C	VWHDC (contractor)		Jan-May
1-6	Whole site	Monitor for and remove garden escapes and non-native plants	C	VWHDC & LBP	Goldenrod is known to be on site. Himalayan balsam and monkey flower are known to be upstream.	Jan-Dec
1-6	Whole site	Litter picking	C	VWHDC & LBP	As required	Jan-Dec
1-6	Whole site	Record & report incidences of vandalism	C	VWHDC & LBP	Report to facilities and parks	Jan-Dec
2,4	Main footpaths	Mow grass alongside paths	C	VWHDC	Vale GM team currently mows paths 8 times/yr	Mar-Oct
2,3,4	Footpaths	Cut back vegetation alongside and overhanging paths and gates	C	VWHDC GM team.		Jan-Dec
1-6	Whole site	Infrastructure check	C	VWHDC	Bridges, bins, bench, access	Jan-Dec
1	Stream	Record pollution incidents and report to EA	C	VWHDC & LBP		Jan-Dec

Compartment	Location	Task	Task Frequency: One-off/ Annual/ Continuous	Who	Detail	When
1	In stream	Assess new blockages in stream and remove if necessary	C	VWHDC & LBP	Monitor stream for new blockages & remove if necessary	Jan-Dec
1	In stream	Identify locations to install in-stream logs	O	VWHDC & LBP	To be decided during the development of the ponds and scrapes design	Jan-Mar
1	Stream bankside	Pollard larger willows and coppice smaller willows on an 8 - 10-year cycle	C	VWHDC & LBP	Stack arisings under remaining trees away from the brook edge	Oct-Mar
1	Stream marginal and bankside vegetation	Manage bankside bramble and vegetation on a 4-year cycle	C	VWHDC & LBP	Maintain approximately 30% shade, 40% open, 30% dappled shade	Oct-Mar
2	Meadow Area	Early spring cut and rake, then late summer cut and rake	A	LPB	Remove all arisings	Apr, Sep
2	Meadow Area	Increase species diversity through wildflower seeding	O	LBP	Cut low, scarify, scatter seed and roll	Sep-Oct
2	Meadow Area	Manage bramble to prevent encroachment on meadow area	A	VWHDC & LBP	Use brush cutter, scythes, tree poppers	Jul-Dec
3	Opposite Elms Villas & Elms Cottages	Fell non-native trees	O	VWHDC (Contractors)	Fell Thuja species and stack on site	Oct-Dec
3,4	Land opposite Elm Villas & Elm Cottages	Reinstate fencing	O	VWHDC (Property)	Post tree removal	Jan-Dec
4	Boundary along embankment north of Willow Walk path	Reinstate boundary fencing	O	VWHDC (Property)	To be decided if necessary	Jan-May
4	Swamp/tall herb/scrub mosaic	Develop plans for pond and scrape creation and implement once funding secured	O	VWHDC		Jan-Mar

Compartment	Location	Task	Task Frequency: One-off/ Annual/ Continuous	Who	Detail	When
4	Swamp/tall herb/scrub mosaic	Cut and rake tall herb vegetation and willow saplings on 3-year rotation	C	LBP	Divide area into thirds and manage rotationally. Stack arisings in habitat pile.	Sep-Oct
4	Between Compartments 4 & 5	Create and maintain dead hedging to discourage access	C	VWHDC	Use woody material generated on site	As required
4	Entrance from Thornhill	Tidy up fallen trees	O	VWHDC (Contractor)	Stack timber in piles	Jan-May
4	Entrance from Thornhill	Pollard overgrown willows	C	VWHDC	Increase light levels and prevent collapse	Jan-May
4,5	Various locations	Remove two patches of invasive goldenrod	O	VWHDC (Contractor)	Excavate rhizomes and monitor	Jan-Mar
4,5	Northern end of open swamp area	Fell poor quality willows shading open area	O	VWHDC (Contractor)		Jan-May
4,6	Southern end of open swamp area and willow woodland	Manage dominance of pendulous sedge	C	LBP	Cut flower spikes and pull seedlings	Apr-Nov
6	Willow Woodland	Pollard selected willows to 2 m and coppice others	O	VWHDC (Contractor)	Rotational management to create thicker scrub	Jan-May
6	Willow Woodland	Re-pollard selected willows and re-coppice	C	VWHDC	Repeat after 8-10 years	Jan-May
1-6	Whole site	Odonata monitoring	A	LBP	Monthly, May-September	May-Sep
1	In stream	Riverfly monitoring	C	LBP	Annual, April-October	Apr-Oct
1,2,3,6	Riperian	Water vole monitoring survey	3 yearly	BBOWT	April-September	Apr-Sep
1	Riperian	Stream Rapid Assessment	3 yearly	LBP	Survey May-August	May-Aug

Appendix 2
Species recorded at Willow Walk derived from records from TVERC, NBN and personal communications

Scientific name	Common Name
Acanthosoma haemorrhoidale	Hawthorn Shieldbug
Accipiter nisus	Sparrowhawk
Adalia bipunctata	2-spot Ladybird
Adalia decempunctata	10-spot Ladybird
Aegithalos caudatus	Long-tailed Tit
Aesculus hippocastanum	Horse chestnut
Aeshna cyanea	Southern Hawker
Agrostis stolonifera	Creeping bent
Alcedo atthis	Kingfisher
Alopecurus pratensis	Meadow Foxtail
Anania hortulata	Small Magpie
Anas platyrhynchos	Mallard
Anisantha sterilis	Barren brome
Anthriscus sylvestris	Cow Parsley
Aphidecta obliterata	Larch Ladybird
Apium nodiflorum	Fool's Water-cress
Apus apus	Swift
Arctium minus	Lesser Burdock
Arrhenatherum elatius	False Oat-grass
Arum maculatum	Lords-and-ladies
Arvicola amphibius	Water Vole
Baccha elongata	Gossamer Hoverfly
Bombus pascuorum	Carder bee
Bombus hypnorum	Tree bumble bee
Bombus terrestris	Buff-tailed bumble bee
Bombylius discolor	Dotted Bee-fly
Bombylius major	Dark-edged Bee-fly
Brachypodium sylvaticum	False brome
Buteo buteo	Buzzard
Calopteryx splendens	Banded Demoiselle
Calopteryx virgo	Beautiful Demoiselle
Calystegia sepium	Hedge bindweed
Cardus crispus	Welted Thistle
Carex acutiformis	Lesser Pond-sedge
Carex hirta	Hairy sedge
Carex pendula	Pendulus Sedge
Carex remota	Remote Sedge
Carex riparia	Great Pond-sedge
Chamaecyparis lawsoniana	Lawson Cypress
Cheilosia albitarsis	Buttercup Blacklet Hoverfly
Cheilosia grossa	Greater Spring Blacklet Hoverfly
Cheilosia pagana	Parsley Blacklet Hoverfly
Chrysopilus cristatus	Black Snipefly
Chrysotoxum bicinctum	Two-banded Spearhorn Hoverfly
Cirsium arvense	Creeping Thistle

Cirsium palustre	Marsh thistle
Cirsium vulgare	Spear thistle
Coccinella septempunctata	7-spot Ladybird
Coenagrion puella	Azure Damselfly
Columba palumbus	Woodpigeon
Conocephalus fuscus	Long-winged Cone-head
Coreus marginatus	Dock Bug
Cottus perifretum	Bullhead
Crataegus monogyna	Hawthorn
Cyanistes caeruleus	Blue Tit
Dactylis glomerata	Cock's-foot
Dasysyrphus albostriatus	Grey Striped Woodland Hoverfly
Dasysyrphus tricinctus	Yellow-girdled Fleckwing Hoverfly
Dendrocopos major	Great Spotted Woodpecker
Deraeocoris (Deraeocoris) flavilinea	True bug
Deraeocoris (Deraeocoris) ruber	Red-spotted Plant Bug
Deschampsia caespitosa	Tufted Hair-grass
Dipsacus fullonum	Teasel
Elytrigia repens	Common Couch
Enallagma cyathigerum	Common Blue Damselfly
Epilobium hirsutum	Great Willowherb
Epistrophe eligans	Early Epistrophe Hoverfly
Epistrophe grossulariae	Broad-banded Epistrophe Hoverfly
Epistrophe melanostoma	Black-mouthed Epistrophe Hoverfly
Epistrophe nitidicollis	Straight Banded Smoothtail Hoverfly
Episyrphus balteatus	Marmalade Hoverfly
Equisetum telemateia	Great Horsetail
Erinaceus europaeus	Hedgehog
Eristalis intricaria	Furry Dronefly
Eristalis nemorum	Stripe-faced Dronefly
Eristalis pertinax	Tapered Dronefly
Eristalis tenax	Common Dronefly
Erithacus rubecula	Robin
Eupeodes corollae	Migrant Broadtail Hoverfly
Eupeodes latifasciatus	Meadow Broadtail Hoverfly
Eupeodes luniger	Lunuled Broadtail Hoverfly
Fagus sylvatica	Beech
Festuca gigantea	Giant Fescue
Festuca rubra	Red fescue
Filipendula ulmaria	Meadowsweet
Fraxinus excelsior	Ash
Galium aparine	Cleavers
Gallinula chloropus	Moorhen
Geranium robertianum	Herb-robert
Geum urbanum	Herb Bennet
Glechoma hederacea	Ground-ivy
Harmonia axyridis	Harlequin Ladybird
Hedera helix	Ivy
Helophilus pendulus	Common Tiger Hoverfly
Heracleum sphondylium	Hogweed

Holcus lanatus	Yorkshire-fog
Humulus lupulus	Hop
Iris pseudacorus	Yellow Flag
Juncus articulatus	Jointed Rush
Juncus effusus	Soft rush
Juncus inflexus	Hard Rush
Lathyrus pratensis	Meadow Vetchling
Leucozona lucorum	Blotch-winged Whitebelt Hoverfly
Libellula depressa	Broad-bodied Chaser
Liocoris tripustulatus	Common Nettle Bug
Lolium perenne	Ryegrass
Lycopus europacus	Gipsywort
Lysimachia nummalaria	Creeping Jenny
Machimus cingulatus	Brown Heath Robberfly
Melangyna cincta	Ringed Tubetail Hoverfly
Melanostoma mellinum	Variable Duskyface Hoverfly
Melanostoma scalare	Chequered hoverfly
Meliscaeva auricollis	Spotted Thintail Hoverfly
Mentha aquatica	Water Mint
Merodon equestris	Greater Bulb-Fly
Milvus milvus	Red Kite
Muntiacus reevesi	Muntjac
Mustela nivalis	Weasel
Myathropa florea	Batman Hoverfly
Myosotis scorpiolides	Water Forget-me-not
Neoascia	Hoverfly sp.
Neomys fodiens	Water Shrew
Palomena prasina	Green Shieldbug
Parhelophilus sp.	Hoverfly sp.
Parus major	Great Tit
Passer domesticus	House Sparrow
Philaenus spumarius	Cuckoo-Spit Insect
Phleum pratense	Timothy
Pipistrellus pygmaeus	Soprano Pipistrelle
Pipiza sp.	Hoverfly sp.
Plagiognathus (Plagiognathus) arbustorum	Common Nettle Flower Bug
Plantago major	Greater Plantain
Platycheirus albimanus	White-footed Hoverfly
Platycheirus clypeatus agg.	Common Marsh Boxer Hoverfly
Platycheirus peltatus agg.	Hoverfly sp.
Platycheirus scutatus	Many-tufted Boxer Hoverfly
Populus tremula	Aspen
Poa annua	Annual Meadow-grass
Propylea quattuordecimpunctata	14-spot Ladybird
Prunella modularis	Dunnock
Pyrrhosoma nymphula	Large Red Damselfly
Pyrrhula pyrrhula	Bullfinch
Rana temporaria	Common Frog
Ranunculus repens	Creeping Buttercup
Regulus regulus	Goldcrest

Roeseliana roeselii	Roesel's Bush-cricket
Rubus fruticosus agg.	Bramble
Rumex conglomeratus	Clustered Dock
Rumex crispus	Curled Dock
Rumex obtusifolius	Broad-leaved Dock
Salmo trutta	Brown Trout
Salix caprea	Goat willow
Salix cinerea	Grey Willow
Salix fragilis	Crack Willow
Sambucus nigra	Elder
Scaeva pyrastri	White-clubbed Glasswing
Scaeva selenitica	Yellow-clubbed Glasswing
Scrophularia auriculata	Water Figwort
Solanum dulcamara	Bittersweet
Solidago canadensis	Canadian Goldenrod
Sphaerophoria scripta	Common Twist-tail
Stachys sylvatica	Hedge Woundwort
Strix aluco	Tawny Owl
Sylvia atricapilla	Blackcap
Sympetrum sanguineum	Ruddy Darter
Sympetrum striolatum	Common Darter
Symphytum officinale	Common Comfrey
Syritta pipiens	Compost Hoverfly
Syrphus	Hoverfly sp.
Syrphus ribesii	Common banded hoverfly
Syrphus torvus	Hairy-eyed Flower Fly
Taxus baccata	Yew
Tetrix subulata	Slender Ground-hopper
Torilis japonica	Upright Hedge-parsley
Trifolium repens	White Clover
Troglodytes troglodytes	Wren
Turdus merula	Blackbird
Urtica dioica	Common Nettle
Veronica beccabunga	Brooklime
Vespa crabo	Hornet
Vespula vulgaris	Common wasp
Viburnum opulus	Guelder rose
Volucella bombylans	Bumblebee Plumehorn
Volucella inanis	Lesser hornet hoverfly
Volucella pellucens	Pellucid fly
Volucella zonaria	Hornet Hoverfly
Xanthogramma pedissequum	Superb Ant-hill Hoverfly
Xylota segnis	Orange-belted Leafwalker
Xylota sylvarum	Golden-tailed Leafwalker