

THE WITHEY BEDS LOCAL NATURE RESERVE GREENSPACE ACTION PLAN 2019 - 2024

DRAFT

Produced by:

On behalf of:





OVERVIEW

Greenspace Action Plans

Greenspace Actions Plans (GAPs) are map-based management plans which specify activities that should take place on a site over a stated period of time; these activities will help to deliver the agreed aspirations which the site managers and stakeholders have identified for that site.

Public Engagement

Engagement with stakeholders is at the centre of effective management planning on any site. An initial engagement period was held for 4 weeks in July 2018, to establish core aims and objectives for the site; these are reflected in Section 4. A second stage of engagement completed in February 2019 enabled stakeholders to comment on the proposed management actions for the site. An associated engagement response document, published online as an appendix to this plan, summarises comments received and any amendments made to the plan as a result.

Version Control

Version	Issue Date	Details	Author	Reviewed	Approved

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1.0 SUMMARY

1.1 Site Summary

Site Name: The Withey Beds Local Nature Reserve

Site Address: Moor Lane, Rickmansworth, Hertfordshire, WD3 1LJ

Grid Reference: TQ 07903 94069

Size: 7.6 hectares (18.78 acres)

Designations: Local Nature Reserve (LNR)

Local Wildlife Site – Withey Beds 89/006

Invertebrate Site Register

Higher Level Stewardship (HLS) Scheme Agreement AG00573792

(part of Croxley Common Moor Agreement)

Owner: Three Rivers District Council

1.2 Vision Statement

The vision for The Withey Beds Local Nature Reserve over the next five years is to continue to maintain and enhance the wide range of habitats and wildlife found here, while allowing for the local community to explore, learn about and enjoy this very special wetland.

This document sets out the management, maintenance and development framework for The Withey Beds Local Nature Reserve to work towards during 2019-24. It is recognised that the systems in place to manage The Withey Beds are already very well established and described in previous plans. As such the GAP seeks to identify subtle improvements and further refinement to the established systems.

2.0 SITE DESCRIPTION

2.1 Introduction

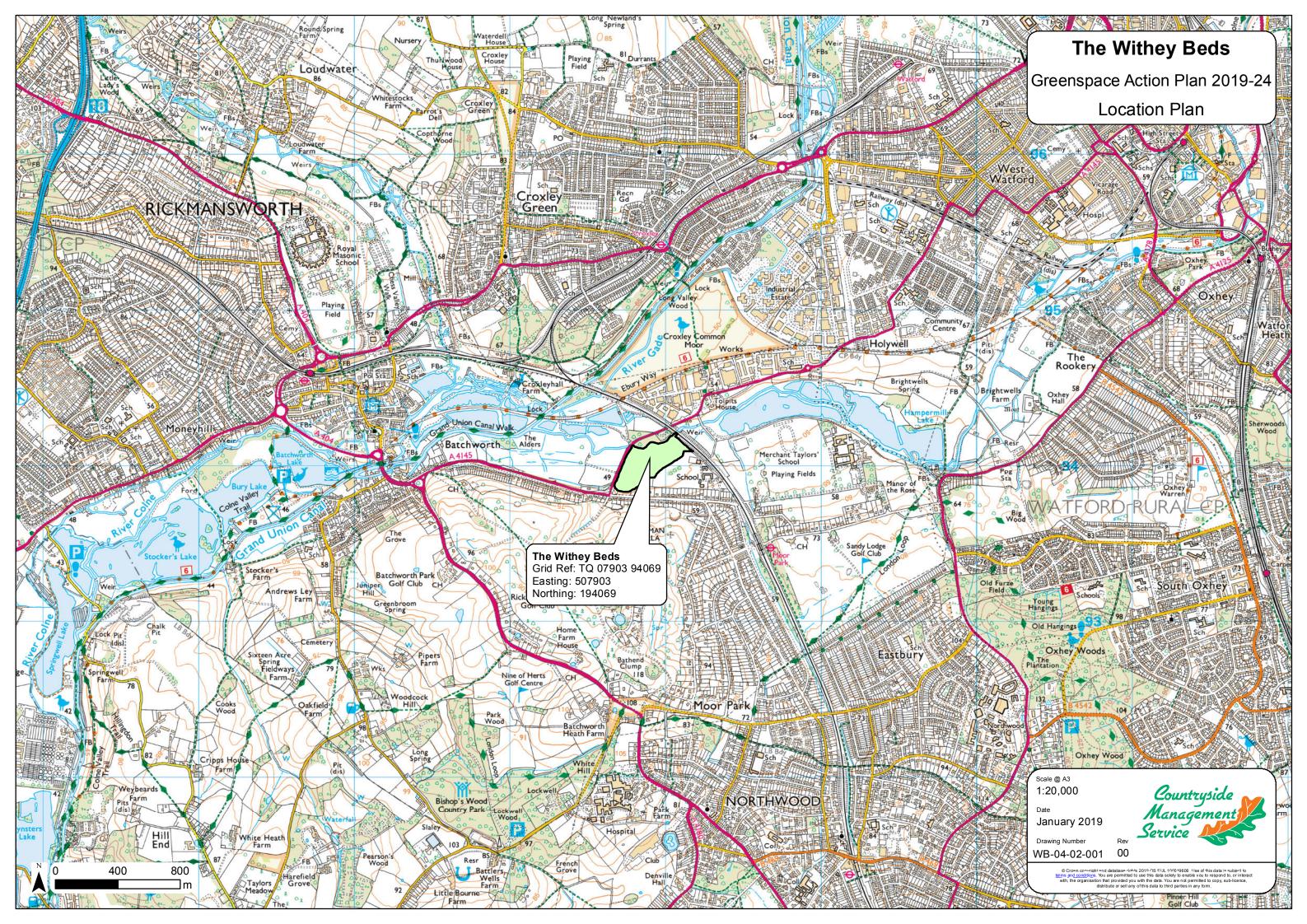
The Withey Beds is a 7.6ha (18.78 acre) wetland site owned and managed by Three Rivers District Council (TRDC). The site is adjacent to the River Colne and consists of areas of wet grassland, tall herb fen/swamp, wet woodland, ponds, a scrape, a backwater and ditches. The Withey Beds provides a mixture of relatively undisturbed habitats for wildlife and has been designated a Local Wildlife Site and Local Nature Reserve (LNR). The site also provides opportunities for informal recreation. Although these opportunities are limited by its location, The Withey Beds is highly valued by the local community.

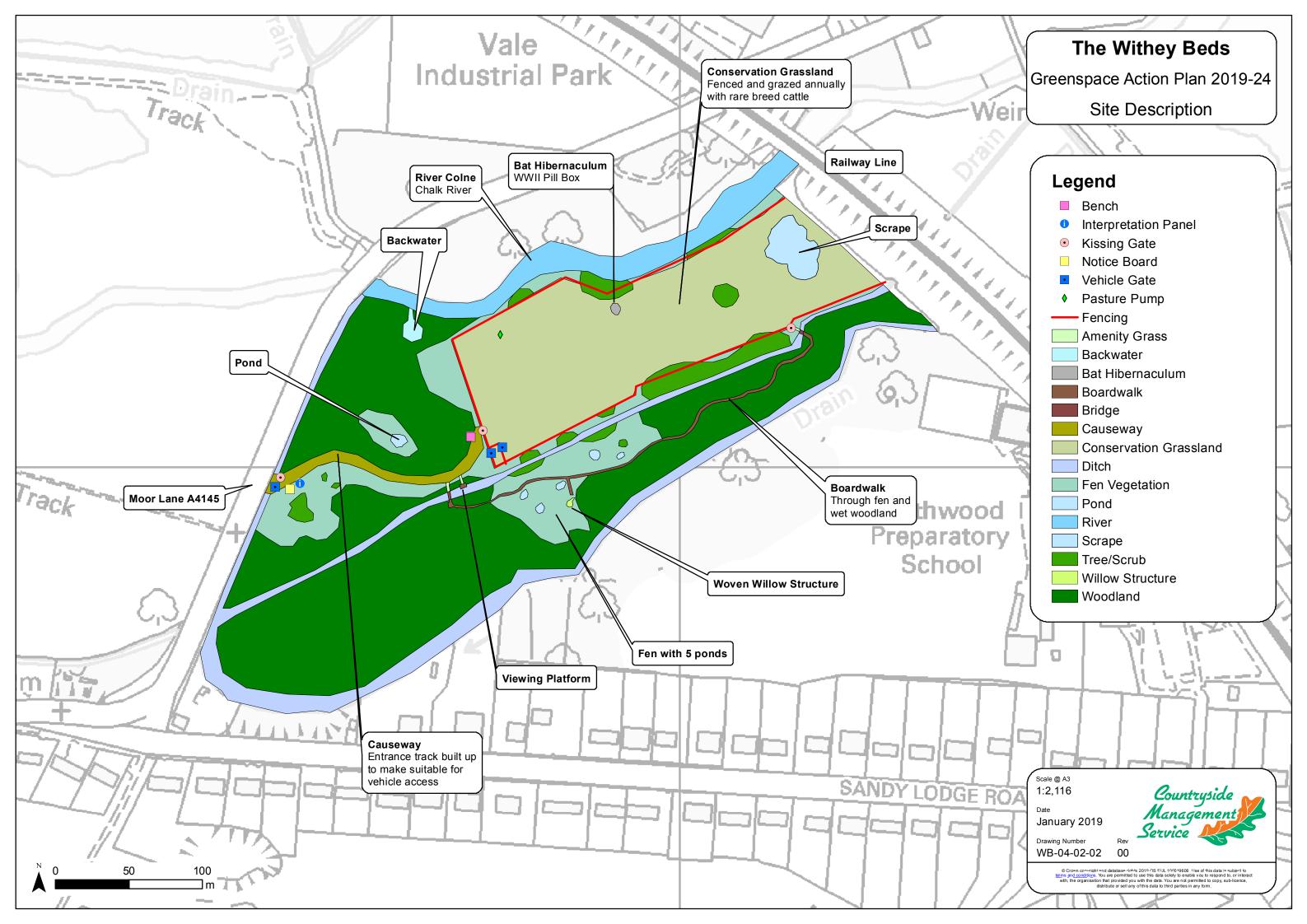
Other features found on site include an old pill box in the grazing meadow now a bat hibernaculum, two footbridges leading from the grazing meadow to the boardwalk taking you through wet woodland and tall herb fen/swamp, grazing infrastructure including fencing, gates and a pasture pump, a bench overlooking the grazing meadow and an interpretation panel and notice board.

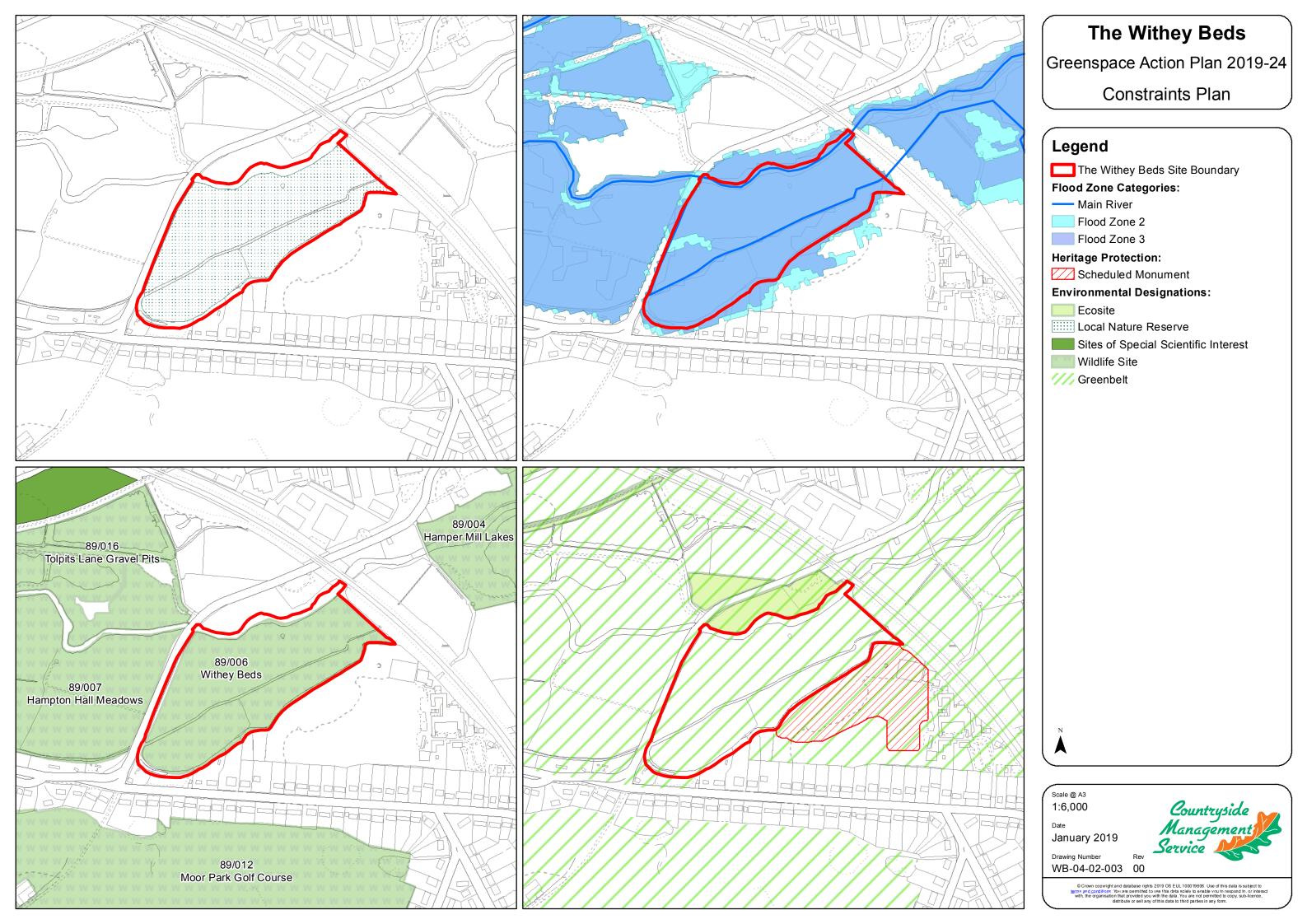
The Withey Beds GAP 2014-19 has helped to guide the Council's management over the last five years. This plan included expanding and enhancing the wetland habitats on site by: digging five wetland ponds around the boardwalk; creation of a wetland scrape at the northern end of the grazing meadow; creating a large backwater off the River Colne to act as a fish refuge and installing gravel riffles. Other works included removing old interpretation panels, fencing the grazing meadow, fixing the pasture pump and reintroducing grazing to the grassland. Volunteers have played a key role in implementing the previous plan and the woody debris workshop training sessions run by the Environment Agency and Wild Trout Trust saw volunteers involved with the installation of brash buildouts and flow deflectors along the river, helping to improve the flow and wildlife habitats.

Current maintenance operations at The Withey Beds included annual cut and lift of the meadow in August/September, until grazing started; strimming the boardwalk to keep it free of vegetation; cutting a footpath through the main field throughout the growing season; litter collection; tree surveys and any remedial works; and annually maintaining the willow structure undertaken by the willow craft worker.

The new GAP will look to further develop the habitats and biodiversity found on the site while retaining its wildlife and recreational value.







2.2 Geography and Landscape

The Withey Beds is situated east of Rickmansworth on the River Colne near the confluence of the Rivers Gade, Chess and Colne; close to the Grand Union Canal. It lies within an extensive network of unimproved grassland and wetland habitats in the Upper Colne River Valley floodplain adjacent to Hampermill Lake, Hampton Hall Meadows and Croxley Common Moor. The geology comprises river alluvium overlaid by stoneless clay, fine silty and fine loamy soils, affected by groundwater (Fladbury 3 series).

The site is covered by Landscape Character Area 5 (Croxley Moor), the key characteristics include level river valley between 0.6 and 1km wide, extensive and numerous waterbodies following restoration of sand and gravel workings, areas of remnant and restored pasture, semi-natural habitats, recreational opportunities associated with waterways, rights of way and wetlands, restricted access to areas, creating a tranquil character and strong vegetated character to some boundaries hiding the extent of adjoining settlements. The Withey Beds is an area of old osier beds with some old oaks. There is also extensive secondary tree cover in the form of linear belts which follow lakesides, railways and local roads, combining to create an enclosed character.

The Withey Beds is bordered by the River Colne to the north, the railway embankment to the north-east, Moor Lane A4145 to the west and a residential area and school to the south.

2.3 History and Archaeology

The Withey Beds are situated within a designated 'Area of Archaeological Significance' that includes a string of major, and in some cases nationally important, sites of Prehistoric, Roman and Medieval date, that lie along the River Colne. Prehistoric flintwork has been discovered towards Sandy Lodge Road. Finds of Roman building material indicate that the site of a Roman building must also exist in the immediate vicinity and the nationally important medieval site of Manor of the More (Scheduled Monument No 29381) is located adjacent to the site.

The history, landscape and hydrology of the area have been strongly affected by the construction of canals and railways. These constructions and World War Two remnants such as a pill box and tank traps are a visible reminder of the site's more recent history.

The name of the site, 'The Withey Beds' is an old English term used to describe the growing of different species of willows for coppicing. They once formed an important part of the local village economy; supplying poles for basketwork, thatching, firewood and many other uses. Parts of the site were traditionally coppiced to provide such products and this form of management has resulted in the varied habitats that have established today.

Three Rivers District Council (TRDC) compulsory purchased the site in 2001. This was followed by a considerable programme of refurbishments including the construction of the causeway (hard standing track into the site), the installation of entrance structures, ponds, scrapes, two footbridges, a boardwalk and the conversion of the pill box into a bat hibernaculum.

The site declared a Local Nature Reserve (LNR) in 2003 by TRDC under section 21 of the National Parks and Access to the Countryside Act 1949. LNR's are places where people can come into contact with their local wildlife. The site has also been designated a Local Wildlife Site (89/006) for its tall herb fen and swamps, wet woodland and mosaic habitat of wet and drier woodland, tall fen and grassland (appendix 6.1).

2.4 Habitats and Wildlife

This alluvial site in the River Colne valley supports a range of habitats including tall herb alluvial swamp, damp grassland, some dry grassland areas, scrub, scattered mature trees, wet woodland, ponds, ditches, backwater and a scrape.

There are a range of habitats and variety of wildlife that can be found across the site.

2.4.1 Grassland

The wet grassland/floodplain grazing meadow is annually grazed by 5 Dexter cattle, which are a native breed at risk; grazing is from April to October. It is fenced with stock netting, with two kissing gates installed in the fence line, one at the western side of the meadow the other near the eastern end where the boardwalk comes out. There is a corral with two field gates located at the end of the causeway for loading and unloading cattle. Towards the river is a pasture pump which is operated by the animals providing them water when required.

Works to install the fencing infrastructure were undertaken during the last plan as capital works as part of the Higher Level Stewardship (HLS) scheme agreement with Natural England. This agreement is a joint one with Croxley Common Moor (AG00573792) which runs for 10 years from 2014 to 2024. In addition, the HLS scheme contributes to the annual management costs of the site including grazing the meadow extensively with cattle; and maintaining areas of fen.

The main entrance, a path to the boardwalk and grazing meadow, access onto the boardwalk and around the kissing gate and bench are maintained by regular cutting to keep the sward low, suitable for pedestrian access.

2.4.2 Trees and Scrub

The wet woodland, developed on the former withey beds, is dominated by crack willow with osier and other willows species. There are scattered mature trees of pedunculate oak and ash. All dead wood, including standing dead wood, is left in situ where it is safe to do so. Trees which have to be reduced or removed for safety reasons are stacked in habitat piles on ground of low vegetation diversity e.g. nettles or brambles or chipped and removed from site.

Friends of The Withey Beds manage a small willow area to provide suitable material (withies) for basket weaving. There is a willow structure near the boardwalk which has been woven over the years by a willow weaver.

2.4.3 Wetlands

There are a variety of wetland habitats found across the site including open water in the form of ditches, a large pond, five smaller ponds by the boardwalk, a backwater and the river

Colne bordering the site to the north. As well as the open water there is a seasonal scrape in the wet grassland which is wet in the winter/spring and there are areas of wet woodland and fen habitats too.

During the last plan period several of these features were created – the five ponds and the scrape were funded through the HLS agreement. While along the River Colne adjacent to the site an Environment Agency funded project saw a backwater created along with gravel riffles and flow deflectors/brash buildouts. The Environment Agency and Wild Trout Trust held training days for the Watford Piscators (the local fishing club who fish this stretch of river) and other local volunteers to learn how to install the in channel structures.

A wide range of wetland plants have been recorded on site including wild angelica, meadowsweet, purple loosestrife, lesser pond-sedge and common comfrey (appendix 6.2). The fen areas are typically dominated by rushes, sedges and wetland grasses, the management of which is under the HLS agreement.

In the winter months The Withey Beds regularly floods to an extent that the scrape, backwater, the whole of the grazing meadow and even parts of the boardwalk though the fen are completely submerged in water. The construction of canals and railway embankments has disrupted the natural hydrology of the floodplain. Nevertheless, The Withey Beds habitats function as a natural 'wetland sponge' which can help manage both flooding and drought problems. Flood water can be stored in soils or retained as surface water in ponds, scrapes and fen which reduces the volume of floodwater downstream. In dry periods river flows are maintained for longer periods as stored water is slowly released from these wetland habitats.

The Water Framework Directive (WFD) and the existing River Basin Management Plan (RBMP) 2015 – 2021 for the Thames Catchment, sets out aims and objectives for the area. All works carried out on the river and interlinking wetlands should look to consider/implement the RBMP and WFD requirements. The new RBMP 2021 – 2027, will be written during the life of this plan, actions may need to be updated or amended in accordance with the new plan.

2.4.4 Wildlife

The site provides an important habitat for wetland birds including occasional barn owl and snipe (both Herts BAP species), other bird species recorded include kingfisher, Cetti's warbler, little egret, heron, moorhen, green sandpiper, water rail; mammals including six species of bat, fox, Muntjac and Roe deer; invertebrates including butterflies, dragonflies and damselflies and four nationally notable diptera species: the oak jewel beetle, a soldier fly, a solitary bee and Roesel's bush cricket (appendix 6.2).

There is an old pill box left over from the Second World War in the grazing meadow that has been converted into a bat hibernaculum. The local bat group monitors the hibernaculum and reports any repairs that are required.

Amphibians and reptiles have also been recorded on site including smooth newts, grass snake and slow worm. There are 3 reptile felts located along the edges of the causeway to monitor reptile populations.

Fish species recorded in the River Colne include bullhead, brown trout, common bream, bleak, gudgeon, dace, roach, chub, pike, and perch; large numbers of fry have been seen to use the backwater in the summer months. There is an interest in setting up riverfly monitoring on the site as well.

In 2018 a population of water voles were discovered on the River Chess/Colne at Croxley Hall Fisheries, this is close to the River Gade on Croxley Common. Due to the exceptionally dry summer in 2018 no signs were found at The Withey Beds as a lot of the ditches and ponds had dried out. Habitats on site are suitable for water voles to expand into in the future. There was a mink raft installed on the river on the Watford Piscators land in 2015 near to The Withey Beds, which is checked by the fishery. No mink have been reported from site. Otters are also known to frequent the local rivers in Rickmansworth area but as yet there have been no sightings recorded for the site.

2.4.5 Invasive Non-Native Species (INNS)

There are currently no invasive non-native species (INNS) on site but with the river corridor there is always the possibility that some will appear on site such as Himalayan Balsam. The site should continue to be monitored for INNS.

2.5 Access, Facilities and Infrastructure

The pedestrian and vehicular entrance to the site is from the busy A4145 Moor Lane. Access is difficult on foot as there is no paved footpath from the residential area to the south of the site or the industrial area to the north, access is along an informal narrow overgrown path along the grass verge. Pedestrians then need to cross the busy road to access the site. Walking from the industrial area past the Watford Piscators Fishery club and crossing the bridge over the River Colne, gives good views of the river habitats and backwater which are hard to see on site in the summer months.

There is a small area for parking for two cars in an un-surfaced lay-by on the opposite side of the A4145. Unfortunately, this informal lay-by has no dropped kerb and is subject to occasional fly tipping. Maintenance and contractors' vehicles enter through a locked metal barrier onto a causeway (hard standing roadway covered with grass and vegetation) which allows access to the pond and wet meadow. Visitors on foot gain access to the causeway through a kissing gate.

There is a 0.6 mile (1km) circular walking trail that can be followed and takes in a variety of habitats found on site. Crossing the 300m boardwalk through tall herb fen/swamp and wet woodland also gives views of some of the wetland ponds and a woven willow structure, the route returns via a kissing gate into the wet grassland/grazing meadow. A dipping platform was installed along the ditch between the grazing meadow and tall herb fen/swamp area, due to the fluctuating water table this was never suitable for dipping from and is better used as a viewing area. There is one bench which provides views into the grazing meadow.

At the entrance there is a small notice board which the Friends of The Withey Beds keep up to date with information about forthcoming events and a copy of the latest Friends' newsletter; there is also an interpretation panel covering the site's history and wildlife.

The site is a fifteen to twenty minute walk from Moor Park tube station. Nearby are two popular recreational walking and cycling routes: less than half a mile away (0.5km) is the

Ebury Way a 3.5 mile traffic-free path for walkers and cyclists along the route of a former railway line linking Rickmansworth and Watford; the Colne Valley Trail a long distance walking route starts at Rickmansworth about half a mile (0.7km) away from The Withey Beds and follows the River Colne and Grand Union Canal towpath. There is no direct, easy access to either of these paths from The Withey Beds.

2.6 Community and Events

The Withey Beds is fortunate in having an enthusiastic and knowledgeable Friends group who organise activities, keep wildlife records and produce a regular newsletter.

There is a site leaflet in the style of other Council leaflets which describe how to get to The Withey Beds, what can be found on the site and how to get involved. When a reprint is required the leaflet can be updated.

A number of public events are organised at The Withey Beds by the Friends. In May an annual guided walk around the site is held as part of the Ricky Week celebrations and they man a stand to publicise the reserve at the Rickmansworth Festival.

The Friends of The Withey Beds along with the local community are consulted during the management planning process and take the opportunity of contributing to the plan.

Countryside Management Service (CMS) mid-week conservation volunteers perform practical tasks on the reserve which help to maintain the habitats and facilities. Tasks include cutting back vegetation from the boardwalk, extension and repairs to the boardwalk, installing the interpretation panel and notice board.

Practical habitat management training courses have been held back in 2016 on the River Colne. The habitat course managing woody debris was led by the Wild Trout Trust (WTT), in partnership with the local Environment Agency team, Herts & Middlesex wildlife Trust (HMWT) and Watford Piscators. Participants from these and other environmental and river groups were taught how to install brash build-outs, flow deflectors and gravels into the channel to speed up the flow of water through the channel improving the water for fish. Short talks were held on relevant issues such as land use, water quality, managing floods and droughts as well as an invertebrate kick sample to look at the bugs in the river and introduce the Anglers Riverfly Monitoring Initiative (ARMI) www.riverflies.org.

Watford Piscators manage the adjacent fishery and fish along the section of the River Colne which runs the length of The Withey Beds. They report any water quality or fish issues to the EA.

TRDC has a dedicated webpage for <u>The Withey Beds</u>, here you can view the current management plan and download the dedicated site leaflet.

The Withey Beds is part of the River Colne Catchment Action Network (www.colnecan.org.uk/) as it is in the Upper Colne and tributaries. The partnership website provides details of the aims and objectives of the catchment partnership and provides a place to record details of all projects that are going on in the catchment.

3.0 AIM & OBJECTIVES

The aim and objectives of the GAP are as follows:

Aim

To protect and conserve the important wildlife and habitats that are found in The Withey Beds, whilst making it a beautiful, tranquil, diverse and welcoming green space for the use and enjoyment of residents and visitors.

Objectives

- A To protect and conserve the habitats and species that can be found at The Withey Beds.
- A1 Maintain and improve the diversity and wildlife value of habitats on site to protect specialist species and biodiversity.
- A2 Continue to monitor, record and learn about the wildlife of The Withey Beds (including otters, water voles, riverflies, amphibians and reptiles, dragonflies and damselflies, bats and flora).
- A3 Undertake monitoring and repairs to the bat hibernaculum.
- B To enhance the river corridor and wetland areas for the benefit of its wildlife and aesthetic appeal.
- B1 Monitor existing river structures and assess potential for further in channel and morphological improvements.
- B2 Pollard large willows on rotation along the river bank.
- B3 Improve access for surveyors to river.
- B4 Manage ponds, scrape and backwater by removal of encroaching vegetation.
- B5 Undertake a Great Crested Newt Habitat Suitability Index Survey of the large pond, to enable management works to be carried out.
- B6 Manage the fen habitats by maintaining scrub at no more than 20%, cutting areas of fen on rotation, cleaning ditches and cutting bank edges on rotation.
- B7 Maintain wet woodland as non-intervention.
- B8 Undertake a survey of all the ditches.
- B9 Monitor for any Invasive Non-Native Species (INNS) across the site such as Himalayan Balsam and remove if found.
- B10 Carry out maintenance to the willow structure.
- B 11 Friends of The Withey beds to continue to manage the small area of willows for basket weaving.

- C To conserve the grassland and fulfil the HLS agreement by annual grazing.
- C1 Continue to graze the grassland with rare breed cattle as per the requirements of the HLS agreement.
- C2 Maintain all fencing infrastructure including gates, corral and pasture pump to a high standard.
- C3 Improve views across the grazing meadow.
- C4 Organise training for volunteers as stock checkers.
- C5 Reapply for Countryside Stewardship or new Environmental Scheme at end of agreement.
- D To promote The Withey Beds as a very special wetland site, which provides local residents and visitors with the opportunity to experience high quality habitats and close encounters with a diversity of wildlife.
- D1 Promote the natural environment found at The Withey Beds while strengthening support from visitors to protect and conserve the site.
- D2 Support volunteer activity on the site and ensure all involved operate towards achievement of the GAP.
- D3 Encourage community and volunteer involvement with practical conservation tasks, ecological surveys, activities and events.
- D4 Support and promote Friends of The Withey Beds (FoTWB).
- D5 Continue to offer all visitors and local residents a variety of events and activities at The Withey Beds.
- D6 Maintain regular contact with key stakeholders and community groups and consult on decision making where appropriate.
- D7 Annually review action plans taking into account anything that the community has brought to light during the last year.
- D8 Review and update site websites, the site leaflet and interpretation as and when required.
- E To ensure all furniture at The Withey Beds are in safe and serviceable condition and, where appropriate, of uniform design.
- E1 Monitor the grounds maintenance regimes (including grass cutting, litter collection) to ensure they comply with the contracted standard.
- E2 Maintain a standard, uniform design of furniture if replacing or installing benches and other structures, in keeping with their surroundings.
- E3 Undertake annual checks of the boardwalk, scheduling in repairs as required.

- F To provide an area of open space that is well-maintained, safe and welcoming for local residents and visitors to enjoy.
- F1 Improve access to, from and around The Withey Beds; linking to local greenspaces, businesses, schools, residential areas, public transport, shops and local amenities.
- F2 Maintain all signage by regular cleaning and inspections.
- F3 Undertake proactive response to the misuse of the site.
- F4 Carryout regular risk assessments of the facilities, natural features and general environment found at The Withey Beds and undertake any repairs.
- F5 Carry out programmed tree works to address safety issues.
- G To maintain an inviting but low-key and appropriate entrance into The Withey Beds.
- G1 Maintain the entrance to The Withey Beds keeping it low key but inviting; including maintaining the gates, signage and providing good sightlines along the road to improve access.
- G2 Maintain the on-site information panel interpreting history, wildlife and management and keep the notice board updated for visitors.
- H To ensure ongoing costs are sustainable and secure external funding for capital works.
- H1 Ensure the costs of ongoing maintenance proposed in the GAP are financially sustainable and achievable with the resources available.
- H2 Seek external funding from grant bodies and development funds, to deliver proposed activities beyond annual maintenance.
- H3 Ensure all management is carried out according to environmental best practice, including on herbicide use, plant biosecurity to minimise tree disease, and sustainable woodland management practices.
- H4 Identify approaches which will deliver multiple benefits, such as combining habitat and tree risk management.

4.0 MANAGEMENT PRESCRIPTIONS

All projects and improvements carried out on The Withey Beds will take into account the landscape character of the area along with any designations and restrictions imposed on the site, while continuing to enhance the site for people while protecting and conserving its wildlife.

4.1 Habitats and Wildlife

Where possible a wider landscape scale approach should be taken with local landowners to see what options there are for improved management of land immediately upstream and downstream of the site.

4.1.1 Grassland

Continue to manage the access and entrance points onto site and into the grazing meadow and boardwalk area by regular cutting. Vegetation around the signs and bench also needs to be managed to stop it from encroaching.

Grazing should continue on site as per the requirements of the HLS agreement, checks need to be undertaken to make sure this happens and that the type of grazing animals used and number of animals do not exceed the recommended amounts. There has been a slight increase in thistles since grazing commenced but that is being managed by topping before the cattle return each year. To help the grazier volunteers from the friends group or local people should be trained up as stock checkers, so that the grazier only needs to visit the site a couple of times a week or if there are any issues. Volunteer stock checkers can also check the fencing, gates and pasture pump at the start of every season before the cattle arrive. CMS could organise a volunteer stock checking course for volunteers from The Withey Beds and other TRDC sites which have grazing.

4.1.2 Trees and Scrub

In accordance with the HLS agreement the fen is to be maintained in an open condition with scattered trees and scrub covering no more than 20% of the fen area. Scrub can be cut by volunteers and stacked on site as habitat piles around the edges of the fen or burnt in designated areas away from the fen and wetland areas. Burning must only be carried out when the wind is low so the smoke does not blow towards properties, the road or railway – the fire brigade needs to be informed of a controlled burn and an exemption to burn waste material from the Environment Agency may be required. Where possible stumps are to be treated using an appropriate herbicide to prevent regrowth.

The wet woodland areas, primarily around the boardwalk are to be maintained mainly as non-intervention woodland only cutting vegetation as it grows over the boardwalk. Wet woodland species can be encouraged to extend in this area as long it is not into the fen areas.

Larger more prominent willows along the river bank can be pollarded on 7 year rotation to allow more light into the channel.

The willow structure needs annual maintenance to weave in any new growth stopping it from growing into mature trees; this is done by the willow weaver. Friends of The Withey Beds should continue to manage the small willow area to provide suitable material (withies) for basket weaving.

Tree risk management surveys are undertaken across the site every three years, with resultant works being prioritised.

4.1.3 Wetlands

The HLS agreement (appendix 7.3) also requires maintenance of the fen habitat by cutting of small areas of fen vegetation (<20% of fen area) on rotation every two years during the winter months, the cut material must be removed. Water levels must be raised to previous levels straight after cutting. Or small areas (<20% of fen area) of fen can be cut on rotation every two years between mid-July (if no breeding birds are present) and the end of September. If following the second method it should be cut at the end of September, this again can be done by volunteers.

Ditches in the fen are to be cleaned on rotation no more than once every 5 years between 15 September and 31 January, spoil to be spread thinly away from the bank, as required by the HLS agreement. To protect the aquatic and marginal vegetation, ditch banks should be cut on rotation between 15 September and 28 February, so that each bank is not cut more than once in two years (appendix 7.3). A survey of all ditches should be undertaken to see if there are any potential works that can be carried out to improve the habitat and wildlife of the area; any required management can then be programmed in.

Monitor existing river channel structures and assess the potential for further in channel and morphological improvements. Work closely with Watford Piscators to review the need for any bankside tree works along this section of the River Colne.

Manage the ponds by the boardwalk on rotation by the removal of encroaching vegetation especially typha to maintain open water. Vegetation can be hand pulled or dug from the ponds by volunteers and stacked as habitat piles away from the edge of the ponds. Monitor the scrape for signs of it being overtaken by rank vegetation that has not been grazed or flooded out. If this seems to be occurring look to cut and clear the vegetation at the end of September/early October before the grassland floods in winter.

The large pond to the north of the causeway has become over shaded and is silting up. Before works to improve the pond can be undertaken a Great Crested Newt (GCN) Habitat Suitability Index survey should be undertaken, to find out if GCN are using the pond this may then lead to an eDNA test being required. The results will then help to guide the best timing to undertake the improvements to the pond over the next two years. Firstly over shading vegetation will be removed to get much needed light back into the pond, followed by the scraping of vegetation to remove some of the silt to create open water areas again and opening up a viewing area from the path.

4.1.4 Wildlife

Access will be improved for monitoring along the river by installing a small discrete stile in the fence line. This will allow for the regular otter and water vole surveys organised by

HMWT to continue along with riverfly monitoring. Wildlife Site surveys should also continue to be carried out across the site every 10 years. Other species should be recorded during onsite visits such as butterflies and dragonflies. If there is sufficient interest from the friends group seasonal butterfly surveys could be started. Monitoring for slow worms and grass snakes should continue by regular checking and recording of species using the reptile felts, when the felts reach the end of their life they should be replaced so monitoring can continue.

The old Second World War pill box in the grazing meadow, now a bat hibernaculum is in need of some attention. A bat survey should be carried out by the local bat group to see if the hibernaculum is being used (this can be combined with one around the site), then an assessment of what needs to be done in order to repair and improve the pill box as a hibernaculum needs to be undertaken. TRDC will need guidance and expertise from the bat group to guide any improvements.

4.1.5 Invasive Non-Native Species (INNS)

There are currently no Invasive Non-Native Species (INNS) present at The Withey Beds, but with recreational use of the site species could easily be spread from other areas. Education is key in preventing the spread of INNS, it is important that people using the site and local landowners especially those upstream are communicated with about the importance of prevention. With regular monitoring of the site for INNS then any potential outbreak can be caught early on and dealt with quickly, any additional control measures can then be added into the annual action plan.

4.2 Access, Facilities and Infrastructure

Cutting back is required around the entrance onto the site to improve the sightlines along the busy A4145 when trying to leave the site by foot or with a vehicle. Lifting the vegetation around the kissing gate will not only help with visibility but also make the site signage noticeable. A brown tourist sign could be installed opposite the entrance to mark the site for visitors; permission would need to be sought from Highways.

Cutting back is also required around the kissing gates and along the boardwalk – this may involve some slightly larger trees and scrub to stop them encroaching into the path. Around the bench the vegetation should be kept low so as not to encroach onto the seating and the small hawthorn next to the bench should be removed. Vegetation can be cut down along the grazing meadow fence line opposite the bench to improve the views across the grazing meadow. These items can be done by volunteers then maintained by the grounds maintenance team.

A feasibility study has been undertaken prior to this plan by Highways looking at creating a footway along Moor Lane and Tolpits Lane from Sandy Lodge Road junction to Dwight Road East. The primary driver of their study is to make a safe walking route for employees of the Tolpits Lane businesses to/from Moor Park Station. They are looking into negotiating a permissive footpath across land, just east of the rail line to avoid the dog leg if you follow the edge of the road. Some new footway would still be needed on Tolpits Lane, as well as a suitable crossing facility, which is still to be looked by engineers. This is only the early stages of any plans and external funding would be required to undertake any improvements such as S106 funding. There are a couple of parking bays almost opposite the entrance to The

Withey Beds which may be able to be surfaced as part of the works to make the area as safe as possible for visitors.

The access to the boardwalk is via two small bridges, theses should be painted and the chicken wire replaced with weldmesh once it reaches the end of its life. At each end of the boardwalk is a wider passing area, with two rails all the way round and a half round rail on the top. The half round rails are beginning to become rotten and need removing, at the same time any damaged boards or edging should be replaced. This can be something that volunteers can be involved with. Over time the boardwalk will reach the end of its life and need replacing, this can be done in sections by volunteers. Plastic legs and bearers should be used when replacing the boardwalk as it stands in water for long periods of the year and this would prolong its life, then either plastic or wooden boards can be used. If using wooden boards then weldmesh should be added, while plastic boards can be brought with an antislip coating.

The old set of steps half way along the boardwalk should be removed and be replaced by a kick rail. A new set of steps should be added to the side of the boardwalk leading to the entrance to the willow structure. Volunteers will be able to undertake this work when they are doing other boardwalk repairs.

The former dipping area near to the bridge off the causeway is not suitable for dipping from due to the fluctuating water levels; it should be repurposed and used as a wildlife viewing area. The vegetation needs to be cleared away from it to expose the boards, which should be checked regularly, the boards have grooves in so should not become slippery if they do weldmesh can be added. Volunteers can be involved with the initial clearance then the ongoing maintenance can be passed to the grounds maintenance team.

The interpretation panel and notice board should be regularly cleaned by the friends group. The notice board should be kept up to date with relevant information. The interpretation panel needs to be dug out and lowered as it has been set to high, this can be done by volunteers. Every few years the entrance sign should be re-oiled and the letters repainted. This can also be done by the friends group/volunteers but care needs to be taken when working near to the road.

4.3 Community and Events

TRDC has a web page for The Withey Beds (www.threerivers.gov.uk/egcl-page/local-nature-reserves#witheybeds), it has details of the site, its location, management plan and leaflet; the page needs to be kept up to date. It would be worth including a link to the Friends group website www.thewitheybeds.org.uk which has details of their newsletter and events. The site is also listed on ParksHerts (www.parksherts.co.uk) and the CMS website (www.hertfordshire.gov.uk/placestovisit). The Friends could also be set up on Herts Directory and added to the CMS website list of 'groups that they endorse' which would also help in getting new members and publicising the activities of the friends group.

Promote and develop FoTWB via the websites, press releases, events and activities. Provide new and continuing volunteer opportunities such as practical tasks, stock checking, riverfly monitoring and species surveying. Continue to run at least 2 events/activities at/about The Withey Beds such as guided walks a year to engage with the local community.

Continue close liaising with local landowners especially Watford Piscators and organisations such as the Environment Agency and Wild Trout Trust. Keep up to date with work across the River Colne Catchment Action Network (ColneCAN www.colnecan.org.uk/) and the more local Upper Colne and Tributaries Catchment Partnership. New projects across the catchment can be added to the project website, this is a good way to draw in additional funding (www.colnecan.org.uk/index.php/the-action-plans/upper-colne-and-tributaries/upper-colne-and-tributaries-projects).

The site leaflet should be reviewed periodically and updated to include any new site features such as ponds, scrapes and fencing; the new leaflet needs to be uploaded to the websites. The interpretation panel should also be reviewed.



5.0 ACTION PLANS AND MAPS

5.1 ANNUAL AND REGULAR ACTIONS

Ref no.	Action	Obj. Ref	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
0.1	Cut around signs, furniture and entrances (including kissing gates, boardwalk and viewing platform).	E1, F1, G1	Apr-Oct	TRDC	TRDC	TRDC Budget	GM Contract		
0.2	Improve views across the grazing meadow.	С3	Apr-Oct	TRDC	CMS Vols	TRDC Budget	Volunteer time		
0.3	Continue conservation grazing following HLS requirements.	C1	Apr-Oct	TRDC	TRDC	TRDC Budget	£250.00		
0.4	Continue species and habitat monitoring across the site included otter, water vole, riverfly, reptiles and amphibians, dragonflies and damselflies, bats and flora.	A1-3, B5	Ongoing	TRDC	TRDC CMS Vols FoTWB	TRDC Budget	Volunteer time		
0.5	Replace reptile felts when they reach the end of their life.	A1-2	When required	TRDC	FoTWB	TRDC Budget FoTWB	Materials Volunteer time		
0.6	Carry out a bat survey of the hibernaculum. Undertake any repairs required to the hibernaculum working with the local bat group.	A1, A3	Survey Jul Works Dec-Jan	TRDC	TRDC Local Bat Group	TRDC Budget	Materials		
0.7	Monitor for Invasive Non-Native Species and undertake any required control needed.	B9	Ongoing	TRDC	CMS Vols	TRDC Budget	Staff/Vol time		
0.8	Maintain wet woodland as non-intervention; allow expansion in this area only.	B7	Ongoing	TRDC	CMS Vols	TRDC Budget	Staff/Vol time		

Ref no.	Action		When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
0.9	Remove rubbish and fly tip.	E1, F3	When required	TRDC	TRDC	TRDC Budget	GM Contract		
0.10	Clean interpretation panel and notice board.	F2	Quarterly	TRDC	TRDC FoTWB	TRDC Budget	GM Contract		
0.11	Keep notice board content up to date.	G2	Ongoing	TRDC	FoTWB	TRDC Budget	Volunteer time		
0.12	Tree risk management inspections and undertaking of works.	F5	Every 3 years	TRDC	TRDC	TRDC Budget	TBC		
0.13	Health and Safety inspections and undertaking of any works.	F4	Ongoing	TRDC	TRDC	TRDC Budget	ТВС		
0.14	Undertake annual checks of the boardwalk, bridges, grazing infrastructure and other furniture and undertake any immediate repairs.	C2, E2-3, F4	April	TRDC	TRDC CMS Vols	TRDC Budget	ТВС		
0.15	Replace the boardwalk in sections, when required.	E2-3	Ongoing from Sep	CMS	Vols	TRDC Budget	TBC		
0.16	Promote Friends group.	D2, D4	Ongoing	TRDC CMS	TRDC CMS FoTWB	TRDC Budget FoTWB	TBC		
0.17	Promote volunteer activity and community events (including practical tasks and surveying).	D1, D3	Ongoing	TRDC CMS	CMS	TRDC Budget	Staff time		
0.18	Promote and run 2 events/activities a year at/about The Withey Beds.	D1, D5	Summer, Autumn	TRDC	TRDC CMS FoTWB	TRDC Budget FoTWB	Staff/Vol time		
0.19	Liaise/work with neighbouring landowners including WP, NR, Environment Agency and The Wild Trout Trust.	D6	Ongoing	TRDC	TRDC CMS	TRDC Budget	ТВС		

Ref no.	Action		When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
0.20	Attend catchment partnership meetings and keep up to date with developments across the catchment, add projects to catchment website.	D6	When required	CMS	CMS	TRDC Budget	Staff time		
0.21	Update TRDC 'The Withey Beds' web page and all other websites when required; add details of the Friends groups to all websites.	D8	Ongoing	TRDC	TRDC CMS FoTWB	TRDC Budget	Staff time		
0.22	Ensure ongoing maintenance costs are financially sustainable.	H1	Ongoing	TRDC	n/a	n/a	n/a		
0.23	Secure external funding to ensure viability of capital works.	H2	Ongoing	TRDC CMS	TRDC CMS	TRDC Budget	Staff time		
0.24	Carry out maintenance to the willow structure.	B10	Oct-Feb	TRDC	Willow Weaver	TRDC Budget	£1000.00		
0.25	FoTWB to continue to manage the small area of willows for basket weaving.	B11	Oct-Feb	TRDC	FoTWB	N/A	Volunteer time		
0.26	Review and update annual action plans.	D7	Yearly	TRDC CMS	ALL	TRDC Budget	Staff time		

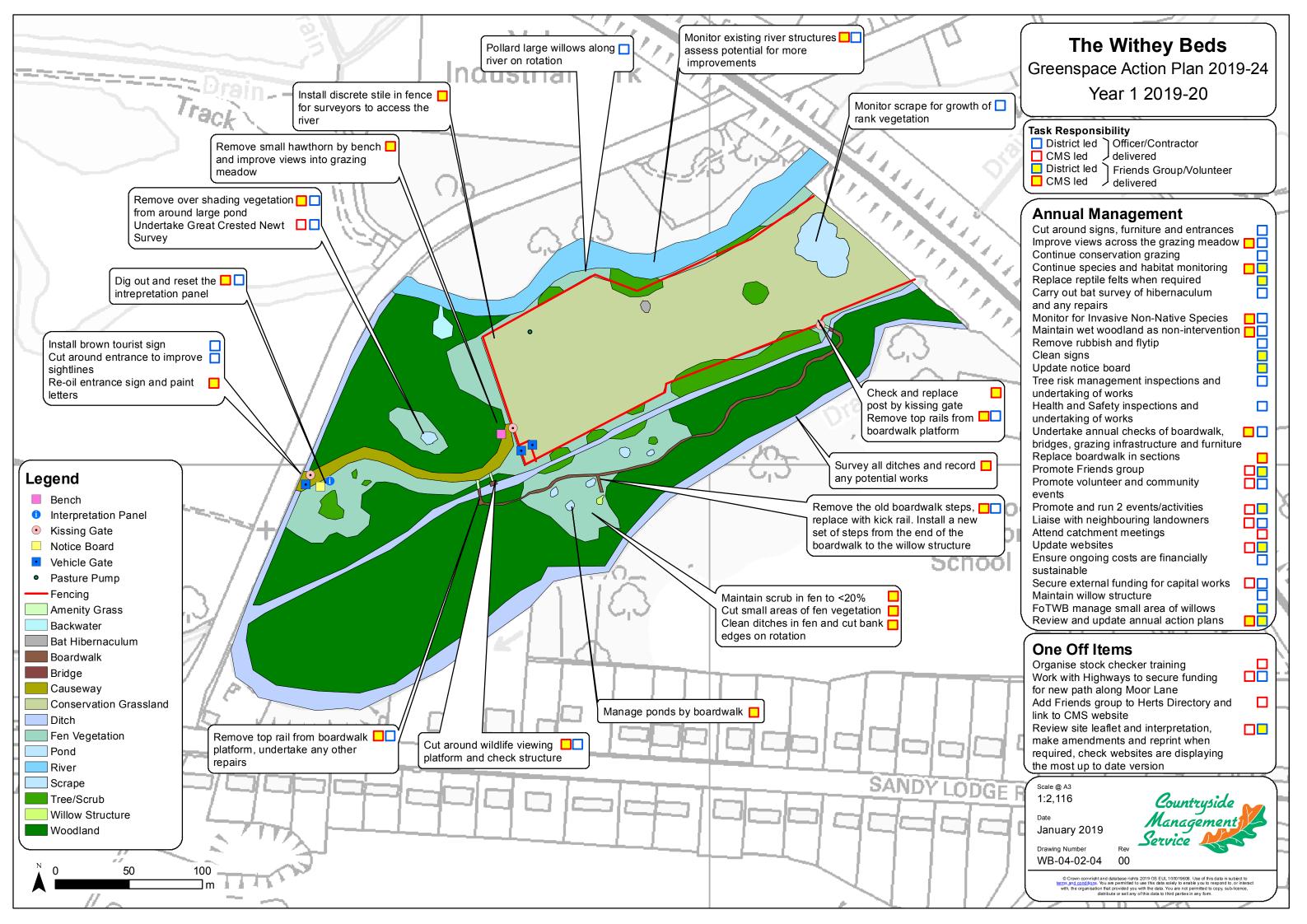
Abbreviations: TRDC – Three Rivers District Council; CMS – Countryside Management Service; FoTWB – Friends of The Withey Beds; GM – Grounds Maintenance; Vols – Volunteers; NR – Network Rail; WP – Watford Piscators

5.2 YEAR 1 2019-20

Ref no.	Action	Obj. Ref	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
1.1	Organise training for volunteer stock checkers.	C4	Apr	CMS	CMS	TRDC Budget	Staff time		
1.2	Install discrete stile in fence line to allow surveyors to access the river.	В3	Apr	CMS	Vols	TRDC Budget	Materials Staff/Vol time		
1.3	Check and replace post on kissing gate at end of boardwalk if required.	C2	Apr	CMS	Vols	TRDC Budget	Materials Staff/Vol time		
1.4	Remove the small hawthorn from beside the bench and establish views of the grazing meadow.	C3	Sep	CMS	Vols	TRDC Budget	Staff/Vol time		
1.5	Pollard large willows on rotation along the river bank.	B2, H4	Oct-Feb	TRDC	TRDC	TRDC Budget	ТВС		
1.6	Maintain scrub coverage in the fen to no more than 20%, stack material at edges of fen as habitat piles, away from ponds and ditches.	B6	Oct-Feb	CMS	CMS Vols	TRDC Budget	Staff/Vol time		
1.7	Cut small areas of fen (<20%) removing arisings.	B6	Oct-Feb	CMS	CMS Vols	TRDC Budget	Staff/Vol time		
1.8	Clean ditches in fen (Sep-Jan) and cut bank edges on rotation (Sep-Feb).	B6	Sep- Feb	CMS	TRDC CMS Vols	TRDC Budget	Staff/Vol time		
1.9	Survey all ditches and record any potential works.	B8	Sep- Dec	CMS	CMS Vols	TRDC Budget	Staff/Vol time		

Ref no.	Action	Obj. Ref	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
1.10	Monitor existing river structures and assess potential for further in channel and morphological improvements.	B1, H3, H4	Oct-Dec	TRDC	TRDC CMS WP, EA Vols	TRDC Budget	Staff/Vol time		
1.11	Manage ponds by boardwalk.	B4	Oct-Feb	CMS	CMS Vols	TRDC Budget	Staff/Vol time		
1.12	Monitor scrape for growth of rank vegetation.	B4	Sep-Oct	TRDC	TRDC	TRDC Budget	Staff time		
1.13	Undertake a Great Crested Newt Habitat Suitability Index Survey of the large pond, eDNA test may be required.	B5	Apr/May	TRDC	TRDC CMS	TRDC Budget	ТВС		
1.14	Remove over shading vegetation from around the large pond.	B5	Sep- Feb	TRDC	TRDC CMS Vols	TRDC Budget	Staff/Vol time		
1.15	Work with Highways to secure funding to create a new path along Moor Lane.	F1	Ongoing	TRDC	TRDC Highways CMS	S106?	ТВС		
1.16	Install brown tourist sign opposite site entrance.	F1	Apr-May	TRDC	TRDC Highways	TRDC Budget	TBC		
1.19	Remove the top rails from the wider platforms and carryout any repairs required to the rest of the boardwalk (including checking staples).	E3, F1, F4	Apr	TRDC	CMS Vols	TRDC Budget	Materials Staff/Vol time		
1.20	Remove the old boardwalk steps, replace with kick rail. Install a new set of steps from the end of the boardwalk to the willow structure.	E3, F1, F4	Apr	TRDC	CMS Vols	TRDC Budget	Materials Staff/Vol time		
1.21	Cut around the wildlife viewing platform and check structure.	E1	Sep	TRDC	CMS Vols	TRDC Budget	Staff/Vol time		

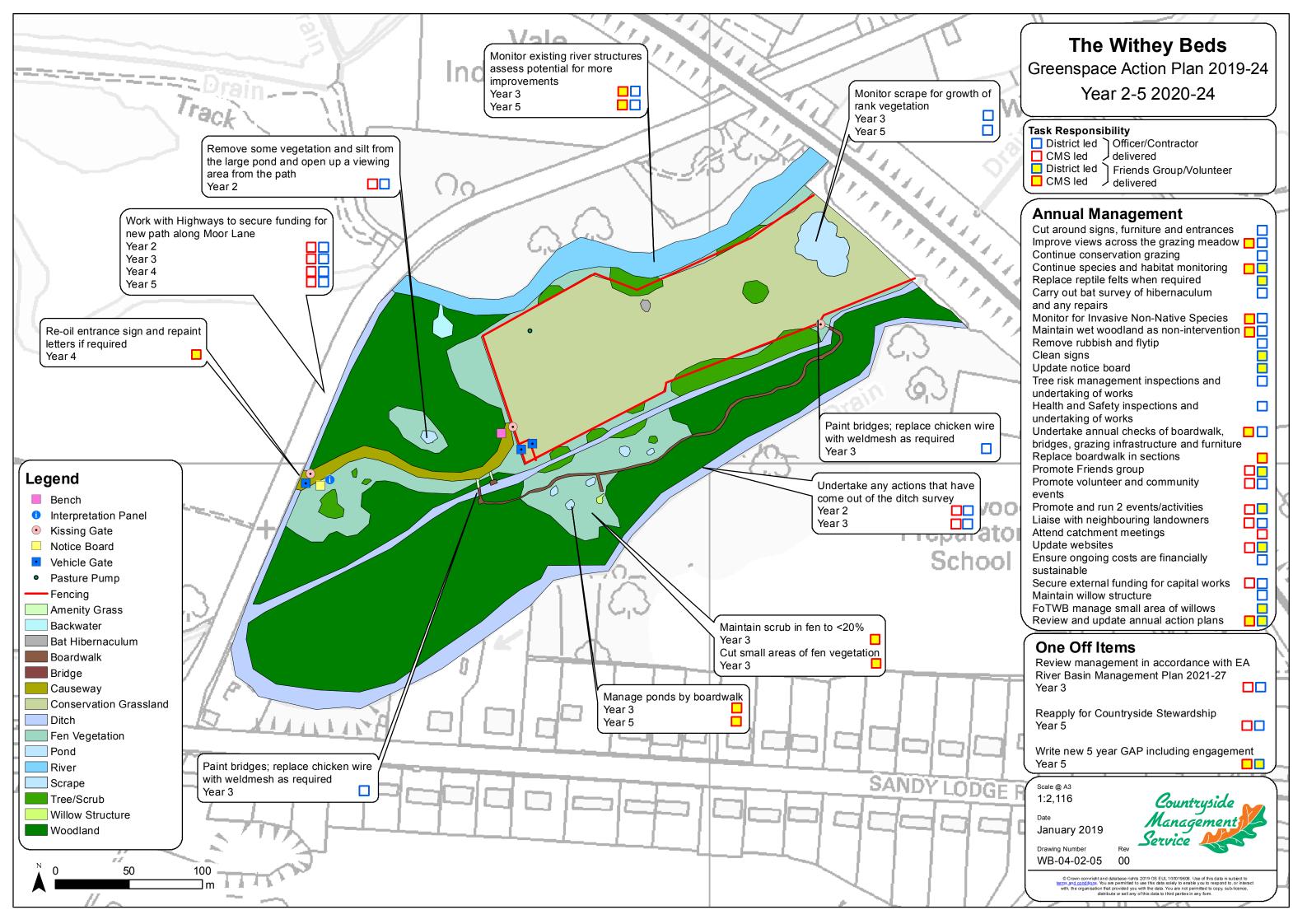
Ref no.	Action	Obj. Ref	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
1.22	Dig out and reset the interpretation panel as it has been installed too high.	G2	Apr	TRDC	CMS Vols	TRDC Budget	Staff/Vol time		
1.23	Re-oil entrance sign and repaint the letters.	G1	Summer	CMS	CMS Vols	TRDC Budget	Staff/Vol time		
1.24	Add Friends group to Herts Directory and to CMS website under groups we endorse.	D4	Apr	CMS	CMS FoTWB	n/a	Staff time		
1.25	Review the site leaflet and interpretation panel, make amendments if a reprint is required. Check that the most up to date versions are on the website.	D8	When required	TRDC	CMS FoTWB	TRDC Budget	Staff time		



5.3 YEAR 2-5 2020-24

Ref no.	Action	Obj. Ref	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
2.1	Work with Highways to secure funding to create a new path along Moor Lane and implement works.	F1, H1, H2	Yrs 2-5 Ongoing	TRDC	TRDC Highways CMS	ТВС	ТВС		
2.2	Remove some vegetation and silt from the large pond and open up a viewing area from the path.	B5	Yr 2 Oct-Feb	TRDC	TRDC CMS	TRDC Budget	ТВС		
2.3	Undertake any actions that have come out of the ditch survey.	B8	Yrs 2 and 3 Sep- Dec	TRDC	TRDC CMS	TRDC Budget	ТВС		
2.4	Paint bridges; replace chicken wire with weld mesh as required.	F4	Yr 3 When required	TRDC	TRDC	TRDC Budget	ТВС		
2.5	Review management in accordance with any new actions in the Environment Agency's new River Basin Management Plans 2021-27.	D6	Yr 3 When required	TRDC	TRDC CMS	TRDC Budget	ТВС		
2.6	Maintain scrub coverage in the fen to no more than 20%, stack material at edges of fen as habitat piles, away from ponds and ditches.	B6	Yr 3 Oct-Feb	CMS	CMS Vols	TRDC Budget	Staff/Vol time		
2.7	Cut small areas of fen (<20%) removing arisings.	B6	Yrs 3 and 5 Oct-Feb	CMS	CMS Vols	TRDC Budget	Staff/Vol time		
2.8	Monitor existing river structures and assess potential for further in channel and morphological improvements.	B1, H3, H4	Yrs 3 and 5 Oct-Feb	TRDC	TRDC CMS WP, EA Vols	TRDC Budget	Staff/Vol time		

Ref no.	Action	Obj. Ref	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
2.9	Manage ponds by boardwalk.	B4	Yrs 3 and 5 Oct-Feb	CMS	CMS Vols	TRDC Budget	Staff/Vol time		
2.10	Monitor scrape for growth of rank vegetation.	B4	Yrs 3 and 5 Sep-Oct	TRDC	TRDC	TRDC Budget	Staff time		
2.11	Re-oil entrance sign and repaint the letters, if required.	G1	Yr 4 Summer	CMS	CMS Vols	TRDC Budget	Staff/Vol time		
2.12	Reapply for Countryside Stewardship or new Environmental Scheme.	C5	Yr 5 Apr	TRDC	TRDC CMS	TRDC Budget	Staff time		
2.13	Write new 5 year GAP and engage with all interested parties.	D7	Yr 5 Apr	TRDC CMS	ALL	TRDC Budget	Staff time		



6.0 APPENDICES

6.1 Local Wildlife Site Citation

Site Code:	89/006
Site Name:	Withey Beds
Grid Reference:	TQ079940
Area:	7.6ha
District:	Three Rivers
Wildlife Site Criteria Habitat:	Fens, Mires, Swamp and Marshes
Designation:	Invertebrate Site Register, Wildlife Site, LNR (100%)
Habitat:	Grassland: neutral, semi-improved, Marshy grassland, Swamp, Scrub, Woodland: broadleaved, semi-natural, Open water: river, ditch, Open water: standing
Site Interest:	Alluvial site in the River Colne valley that supports a range of habitats including tall herb alluvial swamp, damp grassland, some dry grassland areas, scrub, scattered mature trees, wet woodland and a wide drainage ditch. The wet woodland, developed on the former withey beds, is dominated by Crack Willow (Salix fragilis) with Osier (S. viminalis) and other willows (Salix spp.). There are scattered mature trees of Pedunculate Oak (Quercus robur) and Ash (Fraxinus excelsior). A wide range of wetland plants have been recorded including Wild Angelica (Angelica sylvestris), Meadowsweet (Filipendula ulmaria), Purple Loosestrife (Lythrum salicaria), Lesser Pond-sedge (Carex acutiformis) and Common Comfrey (Symphytum officinale). The site is also important for birds and invertebrates with numerous dragonflies recorded from the site plus nationally notable diptera. Wildlife Site criteria: Fen and swamp indicators.

6.2 Species Records

Herts Environmental Records Centre – Summary of records available for The Withey Beds (1984-2016) that have been sent into the records centre over the years.

Common Name	Scientific Name	Taxon Group
Bullhead	Cottus gobio	bony fish (Actinopterygii)
Common Pipistrelle	Pipistrellus pipistrellus	terrestrial mammal
Soprano Pipistrelle	Pipistrellus pygmaeus	terrestrial mammal
Kingfisher	Alcedo atthis	bird
Cetti's Warbler	Cettia cetti	bird
Hobby	Falco subbuteo	bird
Red Kite	Milvus milvus	bird
Green Sandpiper	Tringa ochropus	bird
Redwing	Turdus iliacus	bird
Fieldfare	Turdus pilaris	bird
Barn Owl	Tyto alba	bird
Slow-worm	Anguis fragilis	reptile
Grass Snake	Natrix helvetica	reptile
Lesser Redpoll	Acanthis cabaret	bird
Cuckoo	Cuculus canorus	bird
Reed Bunting	Emberiza schoeniclus	bird
Grasshopper Warbler	Locustella naevia	bird
Brown/Sea Trout	Salmo trutta	bony fish (Actinopterygii)
Cinnabar	Tyria jacobaeae	insect - moth
Song Thrush	Turdus philomelos	bird
Teal	Anas crecca	bird
Mallard	Anas platyrhynchos	bird
Swift	Apus apus	bird
Stock Dove	Columba oenas	bird
Mute Swan	Cygnus olor	bird
Lesser Spotted Woodpecker	Dendrocopos minor	bird
Kestrel	Falco tinnunculus	bird
Snipe	Gallinago gallinago	bird
Lesser Black-backed Gull	Larus fuscus	bird
Grey Wagtail	Motacilla cinerea	bird
Redstart	Phoenicurus phoenicurus	bird
Willow Warbler	Phylloscopus trochilus	bird
Marsh Tit	Poecile palustris	bird
Dunnock	Prunella modularis	bird
Bullfinch	Pyrrhula pyrrhula	bird
Woodcock	Scolopax rusticola	bird
Common Tern	Sterna hirundo	bird
Tawny Owl	Strix aluco	bird

Common Name	Scientific Name	Taxon Group		
Starling	Sturnus vulgaris	bird		
Mistle Thrush	Turdus viscivorus	bird		
Round-leaved Mint	Mentha suaveolens	flowering plant		
Scarce Orange	Beris clavipes	insect - true fly (Diptera)		
Legionnaire	2300 5000 400	(с. р. с. с.)		
Sparrowhawk	Accipiter nisus	bird		
Mandarin Duck	Aix galericulata	bird		
Buzzard	Buteo buteo	bird		
Goldfinch	Carduelis carduelis	bird		
Treecreeper	Certhia familiaris	bird		
Greenfinch	Chloris chloris	bird		
Blue Tit	Cyanistes caeruleus	bird		
Great Spotted	Dendrocopos major	bird		
Woodpecker Little Egret	Egretta garzetta	bird		
Robin	Erithacus rubecula	bird		
Moorhen	Gallinula chloropus	bird		
Swallow	Hirundo rustica	bird		
Great Tit	Parus major	bird		
Coal Tit	Periparus ater	bird		
Green Woodpecker	Picus viridis	bird		
Goldcrest	Regulus regulus	bird		
Nuthatch	Sitta europaea	bird		
Siskin	Spinus spinus	bird		
Wren	Troglodytes troglodytes	bird		
Grey Heron	Ardea cinerea	bird		
Water Rail	Rallus aquaticus	bird		
Ring-necked Parakeet	Psittacula krameri	bird		
Japanese Knotweed	Fallopia japonica	flowering plant		
Chinese Muntjac	Muntiacus reevesi	terrestrial mammal		
Wild Angelica	Angelica sylvestris	flowering plant		
Hairy-brome	Bromopsis ramosa	flowering plant		
Lesser Pond-sedge	Carex acutiformis	flowering plant		
Pendulous Sedge	Carex pendula	flowering plant		
Remote Sedge	Carex remota	V 1		
Hazel	Corylus avellana	flowering plant flowering plant		
Midland Hawthorn	Crataegus laevigata	J .		
		flowering plant		
Hemp-agrimony Meadow Fescue	Eupatorium cannabinum Festuca pratensis	flowering plant flowering plant		
		<u> </u>		
Meadowsweet	Filipendula ulmaria	flowering plant		
Greater Bird's-foot-trefoil	Lotus pedunculatus	flowering plant		
Creeping-Jenny	Lysimachia nummularia	flowering plant		
Purple-loosestrife	Lythrum salicaria	flowering plant		
Reed Canary-grass	Phalaris arundinacea	flowering plant		

Common Name	Name Scientific Name Taxon Group			
Common Fleabane	Pulicaria dysenterica	flowering plant		
Meadow Buttercup	Ranunculus acris	flowering plant		
Field-rose	Rosa arvensis	flowering plant		
Common Sorrel	Rumex acetosa	flowering plant		
Common Comfrey	Symphytum officinale	flowering plant		
Trifolium pratense var.	Trifolium pratense var. pratense	flowering plant		
pratense				
Wych Elm	Ulmus glabra	flowering plant		
Germander Speedwell	Veronica chamaedrys	flowering plant		
Marsh Horsetail	Equisetum palustre	horsetail		
Sedge Warbler	Acrocephalus schoenobaenus	bird		
Long-tailed Tit	Aegithalos caudatus	bird		
Woodpigeon	Columba palumbus	bird		
Carrion Crow	Corvus corone	bird		
Jackdaw	Corvus monedula	bird		
Chaffinch	Fringilla coelebs	bird		
Coot	Fulica atra	bird		
Jay	Garrulus glandarius	bird		
Cormorant	Phalacrocorax carbo	bird		
Pheasant	Phasianus colchicus	bird		
Chiffchaff	Phylloscopus collybita	bird		
Magpie	Pica pica	bird		
Blackcap	Sylvia atricapilla	bird		
Garden Warbler	Sylvia borin	bird		
Whitethroat	Sylvia communis	bird		
Lesser Whitethroat	Sylvia curruca	bird		
Blackbird	Turdus merula	bird		
Common Bream	Abramis brama	bony fish (Actinopterygii)		
Bleak	Alburnus alburnus	bony fish (Actinopterygii)		
Bleak x Roach	Alburnus alburnus x Rutilus rutilus	bony fish (Actinopterygii)		
Pike	Esox lucius	bony fish (Actinopterygii)		
Gudgeon	Gobio gobio	bony fish (Actinopterygii)		
Dace	Leuciscus leuciscus	bony fish (Actinopterygii)		
Perch	Perca fluviatilis	bony fish (Actinopterygii)		
Roach	Rutilus rutilus	bony fish (Actinopterygii)		
Chub	Squalius cephalus	bony fish (Actinopterygii)		
Scots Pine	Pinus sylvestris	conifer		
Sycamore	Acer pseudoplatanus	flowering plant		
Yarrow	Achillea millefolium	flowering plant		
Ground-elder	Aegopodium podagraria	flowering plant		
Horse-chestnut	Aesculus hippocastanum	flowering plant		
Creeping Bent	Agrostis stolonifera	flowering plant		
Water-plantain	Alisma plantago-aquatica	flowering plant		
Alder	Alnus glutinosa	flowering plant		

Common Name	Scientific Name	Taxon Group	
Meadow Foxtail	Alopecurus pratensis	flowering plant	
Cow Parsley	Anthriscus sylvestris	flowering plant	
Fool's-water-cress	Apium nodiflorum	flowering plant	
Greater Burdock	Arctium lappa	flowering plant	
Lesser Burdock	Arctium minus	flowering plant	
Horse-radish	Armoracia rusticana	flowering plant	
False Oat-grass	Arrhenatherum elatius	flowering plant	
Mugwort	Artemisia vulgaris	flowering plant	
Common Orache	Atriplex patula	flowering plant	
Daisy	Bellis perennis	flowering plant	
Nodding Bur-marigold	Bidens cernua	flowering plant	
Lesser Soft-Brome	Bromus hordeaceus	flowering plant	
Butterfly-bush	Buddleja davidii	flowering plant	
Water-Starwort	Callitriche	flowering plant	
Hedge Bindweed	Calystegia sepium	flowering plant	
Large Bindweed	Calystegia silvatica	flowering plant	
Welted Thistle	Carduus crispus	flowering plant	
Sedge	Carex	flowering plant	
False Fox-sedge	Carex otrubae	flowering plant	
Greater Pond-sedge	Carex riparia	flowering plant	
Spiked Sedge	Carex spicata	flowering plant	
Common Mouse-ear	Cerastium fontanum	flowering plant	
Creeping Thistle	Cirsium arvense	flowering plant	
Spear Thistle	Cirsium vulgare	flowering plant	
Dogwood	Cornus sanguinea	flowering plant	
Hawthorn	Crataegus monogyna	flowering plant	
Smooth Hawk's-beard	Crepis capillaris	flowering plant	
Cock's-foot	Dactylis glomerata	flowering plant	
Tufted Hair-Grass	Deschampsia cespitosa	flowering plant	
Wild Teasel	Dipsacus fullonum	flowering plant	
Common Couch	Elytrigia repens	flowering plant	
Great Willowherb	Epilobium hirsutum	flowering plant	
Broad-leaved Willowherb	Epilobium montanum	flowering plant	
Hoary Willowherb	Epilobium parviflorum	flowering plant	
Square-stalked Willowherb	Epilobium tetragonum	flowering plant	
Red Fescue	Festuca rubra agg.	flowering plant	
Ash	Fraxinus excelsior	flowering plant	
Goat's-rue	Galega officinalis	flowering plant	
Cleavers	Galium aparine	flowering plant	
Hedge Bedstraw	Galium mollugo	flowering plant	
Cut-leaved Crane's-bill	Geranium dissectum	flowering plant	
Dove's-foot Crane's-bill	Geranium molle	flowering plant	
Herb-Robert	Geranium robertianum	flowering plant	

Common Name	Scientific Name	Taxon Group
Wood Avens	Geum urbanum	flowering plant
Ground-ivy	Glechoma hederacea	flowering plant
Sweet-Grass	Glyceria	flowering plant
Reed Sweet-grass	Glyceria maxima	flowering plant
lvy	Hedera helix	flowering plant
Hogweed	Heracleum sphondylium	flowering plant
Yorkshire-fog	Holcus lanatus	flowering plant
Нор	Humulus lupulus	flowering plant
Cat's-ear	Hypochaeris radicata	flowering plant
Orange Balsam	Impatiens capensis	flowering plant
Indian Balsam	Impatiens glandulifera	flowering plant
Yellow Iris	Iris pseudacorus	flowering plant
Toad Rush	Juncus bufonius	flowering plant
Soft-rush	Juncus effusus	flowering plant
Hard Rush	Juncus inflexus	flowering plant
Prickly Lettuce	Lactuca serriola	flowering plant
Nipplewort	Lapsana communis	flowering plant
Common Duckweed	Lemna minor	flowering plant
Perennial Rye-grass	Lolium perenne	flowering plant
Gypsywort	Lycopus europaeus	flowering plant
Apple	Malus pumila	flowering plant
Common Mallow	Malva sylvestris	flowering plant
Black Medick	Medicago lupulina	flowering plant
Water Mint	Mentha aquatica	flowering plant
Mercurialis	Mercurialis	flowering plant
Field Forget-me-not	Myosotis arvensis	flowering plant
Water Forget-me-not	Myosotis scorpioides	flowering plant
Water Chickweed	Myosoton aquaticum	flowering plant
Red Bartsia	Odontites vernus	flowering plant
Common Poppy	Papaver rhoeas	flowering plant
Opium Poppy	Papaver somniferum	flowering plant
Green Alkanet	Pentaglottis sempervirens	flowering plant
Knotweed	Persicaria	flowering plant
Redshank	Persicaria maculosa	flowering plant
Smaller Cat's-tail	Phleum bertolonii	flowering plant
Timothy	Phleum pratense	flowering plant
Bristly Oxtongue	Picris echioides	flowering plant
Ribwort Plantain	Plantago lanceolata	flowering plant
Greater Plantain	Plantago major	flowering plant
Annual Meadow-grass	Poa annua	flowering plant
Rough Meadow-grass	Poa trivialis	flowering plant
Knotgrass	Polygonum aviculare	flowering plant
Hybrid Cinquefoil	Potentilla anglica x reptans = P. x mixta	flowering plant

Common Name	Scientific Name	Taxon Group
Creeping Cinquefoil	Potentilla reptans	flowering plant
Selfheal	Prunella vulgaris	flowering plant
Blackthorn	Prunus spinosa	flowering plant
Pedunculate Oak	Quercus robur	flowering plant
Creeping Buttercup	Ranunculus repens	flowering plant
Celery-leaved Buttercup	Ranunculus sceleratus	flowering plant
Buckthorn	Rhamnus cathartica	flowering plant
Marsh Yellow-cress	Rorippa palustris	flowering plant
Dog Rose	Rosa canina agg.	flowering plant
Bramble	Rubus fruticosus agg.	flowering plant
Raspberry	Rubus idaeus	flowering plant
Clustered Dock	Rumex conglomeratus	flowering plant
Curled Dock	Rumex crispus	flowering plant
Broad-leaved Dock	Rumex obtusifolius	flowering plant
Willow	Salix	flowering plant
White Willow	Salix alba	flowering plant
Goat Willow	Salix caprea	flowering plant
Hybrid Crack-willow	Salix euxina x alba = S. x fragilis	flowering plant
Shining Willow	Salix lucida	flowering plant
Osier	Salix viminalis	flowering plant
Elder	Sambucus nigra	flowering plant
Water Figwort	Scrophularia auriculata	flowering plant
Common Ragwort	Senecio jacobaea	flowering plant
Campion	Silene	flowering plant
Red Campion	Silene dioica	flowering plant
Bittersweet	Solanum dulcamara	flowering plant
Prickly Sow-thistle	Sonchus asper	flowering plant
Smooth Sow-thistle	Sonchus oleraceus	flowering plant
Rowan	Sorbus aucuparia	flowering plant
Marsh Woundwort	Stachys palustris	flowering plant
Hedge Woundwort	Stachys sylvatica	flowering plant
Russian Comfrey	Symphytum officinale x asperum = S. x uplandicum	flowering plant
White Comfrey	Symphytum orientale	flowering plant
Dandelion	Taraxacum officinale agg.	flowering plant
Upright Hedge-parsley	Torilis japonica	flowering plant
Lesser Trefoil	Trifolium dubium	flowering plant
White Clover	Trifolium repens	flowering plant
Scentless Mayweed	Tripleurospermum inodorum	flowering plant
Colt's-foot	Tussilago farfara	flowering plant
Bulrush	Typha latifolia	flowering plant
Common Nettle	Urtica dioica	flowering plant
Urtica dioica subsp. galeopsifolia	Urtica dioica subsp. galeopsifolia	flowering plant

Common Name	Scientific Name	Taxon Group		
Blue Water-Speedwell	Veronica anagallis-aquatica	flowering plant		
Pink Water-Speedwell	Veronica catenata	flowering plant		
Hairy Tare	Vicia hirsuta	flowering plant		
Common Vetch	Vicia sativa	flowering plant		
Bush Vetch	Vicia sepium	flowering plant		
Field Horsetail	Equisetum arvense	horsetail		
Anacaena globulus	Anacaena globulus	insect - beetle		
		(Coleoptera)		
Anacaena limbata	Anacaena limbata	insect - beetle (Coleoptera)		
Cream-spot Ladybird	Calvia quattuordecimguttata	insect - beetle (Coleoptera)		
Cercyon (Cercyon)	Cercyon (Cercyon) melanocephalus	insect - beetle		
melanocephalus Cryptopleurum minutum	Cryptopleurum minutum	(Coleoptera) insect - beetle		
Oryptopiedram minatam	Cryptopieurum minutum	(Coleoptera)		
Haliplus (Haliplinus) heydeni	Haliplus (Haliplinus) heydeni	insect - beetle (Coleoptera)		
Haliplus (Neohaliplus) lineatocollis	Haliplus (Neohaliplus) lineatocollis	insect - beetle (Coleoptera)		
Ilybius ater	Ilybius ater	insect - beetle (Coleoptera)		
Megasternum concinnum	Megasternum concinnum	insect - beetle (Coleoptera)		
Ochthebius (Homalochthebius) minimus	Ochthebius (Homalochthebius) minimus	insect - beetle (Coleoptera)		
Peacock	Aglais io	insect - butterfly		
Small Tortoiseshell	Aglais urticae	insect - butterfly		
Ringlet	Aphantopus hyperantus	insect - butterfly		
Meadow Brown	Maniola jurtina insularis	insect - butterfly		
Marbled White	Melanargia galathea serena	insect - butterfly		
Speckled Wood	Pararge aegeria	insect - butterfly		
Speckled Wood	Pararge aegeria tircis	insect - butterfly		
Large White	Pieris brassicae	insect - butterfly		
Comma	Polygonia c-album	insect - butterfly		
Hedge Brown	Pyronia tithonus britanniae	insect - butterfly		
Red Admiral	Vanessa atalanta	insect - butterfly		
Southern Hawker	Aeshna cyanea	insect - dragonfly (Odonata)		
Common Darter	Sympetrum striolatum	insect - dragonfly (Odonata)		
Common Carder Bee	Bombus (Thoracombus) pascuorum	insect - hymenopteran		
Common Nettle-tap	Anthophila fabriciana	insect - moth		
Small China-mark	Cataclysta lemnata	insect - moth		
Rosy Conch	Cochylis roseana	insect - moth		
Bordered Carl	Coptotriche marginea	insect - moth		
Pinch-barred Pigmy	Ectoedemia atricollis	insect - moth		

Common Name	Scientific Name	Taxon Group		
Spotted Black Pigmy	Ectoedemia subbimaculella	insect - moth		
Common Plume	Emmelina monodactyla	insect - moth		
Teasel Marble	Endothenia gentianaeana	insect - moth		
Common Carpet	Epirrhoe alternata	insect - moth		
Common Cloaked Shoot	Gypsonoma dealbana	insect - moth		
Apple Leaf Miner	Lyonetia clerkella	insect - moth		
Hawthorn Slender	Parornix anglicella	insect - moth		
Pointed Slender	Parornix finitimella	insect - moth		
Sycamore Midget	Phyllonorycter geniculella	insect - moth		
White Oak Midget	Phyllonorycter harrisella	insect - moth		
Garden Midget	Phyllonorycter messaniella	insect - moth		
Common Thorn Midget	Phyllonorycter oxyacanthae	insect - moth		
Common Oak Midget	Phyllonorycter quercifoliella	insect - moth		
Common Alder Midget	Phyllonorycter rajella	insect - moth		
Sloe Midget	Phyllonorycter spinicolella	insect - moth		
Mother of Pearl	Pleuroptya ruralis	insect - moth		
Golden Pigmy	Stigmella aurella	insect - moth		
Base-spotted Pigmy	Stigmella basiguttella	insect - moth		
Greenish Thorn Pigmy	Stigmella hybnerella	insect - moth		
Nut-tree Pigmy	Stigmella microtheriella	insect - moth		
Common Fruit-tree Pigmy	Stigmella oxyacanthella	insect - moth		
Least Thorn Pigmy	Stigmella perpygmaeella	insect - moth		
Scrubland Pigmy	Stigmella plagicolella	insect - moth		
Sallow Pigmy	Stigmella salicis	insect - moth		
Oak Carl	Tischeria ekebladella	insect - moth		
Chalcosyrphus nemorum	Chalcosyrphus nemorum	insect - true fly (Diptera)		
Dasysyrphus friuliensis	Dasysyrphus friuliensis	insect - true fly (Diptera)		
Erioptera squalida	Erioptera squalida	insect - true fly (Diptera)		
Melieria omissa	Melieria omissa	insect - true fly (Diptera)		
Four-barred Major	Oxycera rara	insect - true fly (Diptera)		
Roe Deer	Capreolus capreolus	terrestrial mammal		
Eurasian Pygmy Shrew	Sorex minutus	terrestrial mammal		
European Mole	Talpa europaea	terrestrial mammal		
Red Fox	Vulpes vulpes	terrestrial mammal		

6.3 HLS Agreement Summary and Map

The Withey Beds Part 2A Parcel based options Summary

			OPTIONS					
RLR field number	ld Field field size	RLR field size (ha)	Code	Description	Quantity (ha/100m/no.)	Start date	End date	Duration (years/ months)
TQ07949204		7.47	A13	Non payment option - permanent grassland for Article 13	2.50	01/11/14	31/10/24	10 Years
			HK16	Restoration of grassland for target features	2.50	01/11/14	31/10/24	10 Years
			HQ6	Maintenance of fen	0.70	01/11/14	31/10/24	10 Years
			HQ11	Wetland cutting supplement	0.70	01/11/14	31/10/24	10 Years
			HR2	Grazing supplement for native breeds at risk	2.50	01/11/14	31/10/24	10 Years

18<u>4 FWBa : FWB2</u>01 2184 CLH : CLH • 1 HQ7,HQ12 SCR_SCP_SCR,SCP WT PR_PRP:/PRP,PR ● 507500 508000 508500

HIGHER LEVEL STEWARDSHIP AGREEMENT MAP

Options

Management of woodland edges/hedgerow HC/OHC buffer strips

Maintenance of hedgerows/ditches of very high environmental value

Protection of trees HC/OHC

HL/OHL/UHL/UOHL

Application Ref: AG00573792

