

Danesbury Local Nature Reserve

10 Year Landscape Management Plan

2023 – 2033



DOCUMENT AMENDMENT HISTORY

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DOCUMENT APPROVAL

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SITE SUMMARY

Site Name	Danesbury Local Nature Reserve
Address	North Ride, Welwyn, Hertfordshire, AL6 9SA
Grid Reference	TL 23519 16972
What3words	snacks.obey.sober
Size (ha)	24.5
Statutory Designations	Local Nature Reserve
National Character Area (NCA)	110: Chilterns



Figure 1: Aerial image showing the Danesbury Local Nature Reserve site boundary

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1. Introduction

Maydencroft Limited was commissioned by Mr Olly Waring of Welwyn Hatfield Borough Council (WHBC) to produce a 10-Year Landscape Management Plan (LMP) for Danesbury Local Nature Reserve (LNR).

Danesbury LNR is located to the north of Welwyn village in central Hertfordshire. The site is owned by Welwyn Hatfield Borough Council, and has been managed under the terms of a 10-year Higher Level Stewardship (HLS) Agreement which recently ended, a five-year extension has just been agreed and secures further grants until 2028.

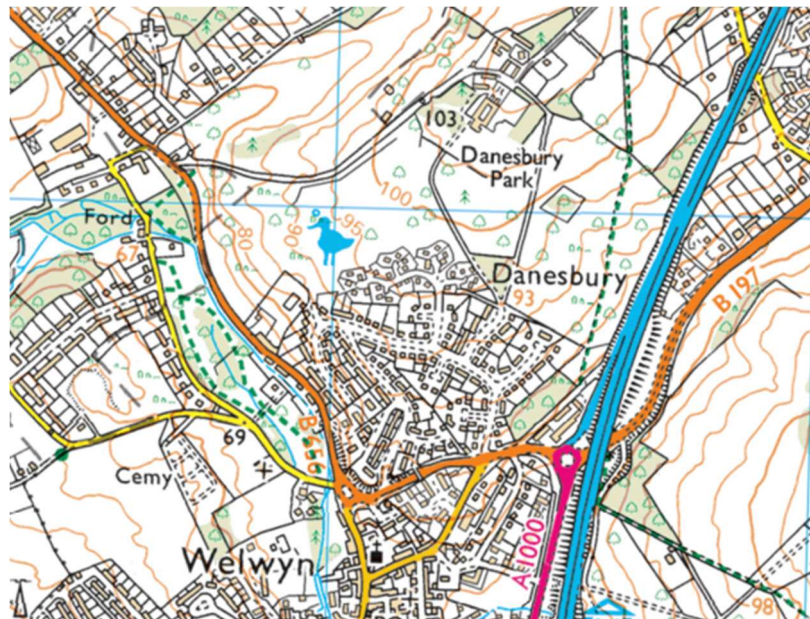
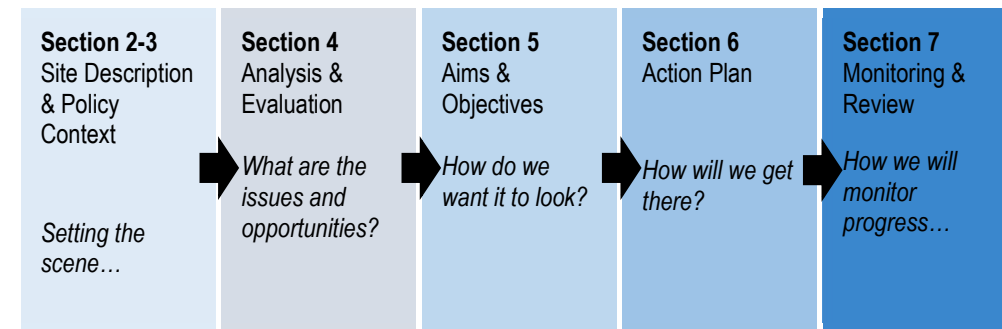


Figure 2: Map showing the location of the site (© Ordnance Survey, 2022)

This LMP is intended to direct the management of the site for a ten-year period from 2023 – 2033, working alongside the stewardship agreement. It aims to capture all of the basic requirements to manage the site effectively, and seeks to make meaningful site improvements where opportunities are identified.

The plan is designed to be read and understood by all who are involved or interested in the management of the site, with the aim that more people can understand, contribute and have a say in how Danesbury LNR should be managed. The structure of the document aims to give a legible process for understanding the current condition of Danesbury LNR and how actions for the next ten years have been determined. The layout can be summarised as follows:



Section 2 of this document provides a Site Description which sets out all the factual, baseline information relating to the site in terms of its history, ecology, function, and landscape. Section 3 summarises key areas of legislation that direct the actions and responsibilities for the management of the site. Section 4 takes this factual information and analyses it to ascertain the key issues facing the site and opportunities for improvement. The aims and objectives for site management and enhancement are set out in Section 5 and action plans for delivering these aspirations in Section 6. The final section includes details on how the plan will be monitored and reviewed.



Legend

- Site Boundary
- Internal Fence
- River
- Public Right of Way
- Managed Pathway
- Steps
- Access Point
- The Fernery
- Parkland (grazed)
- Parkland (cut)
- Pond
- Woodland
- Cattle Pen
- Bench

Drawing Status

ISSUE

Client

Welwyn Hatfield Borough Council

Project

Danesbury Landscape Management Plan

Title

Site Description Plan

Scale 1:3500

Drawn VJ

Date 05/12/2022

Checked LM

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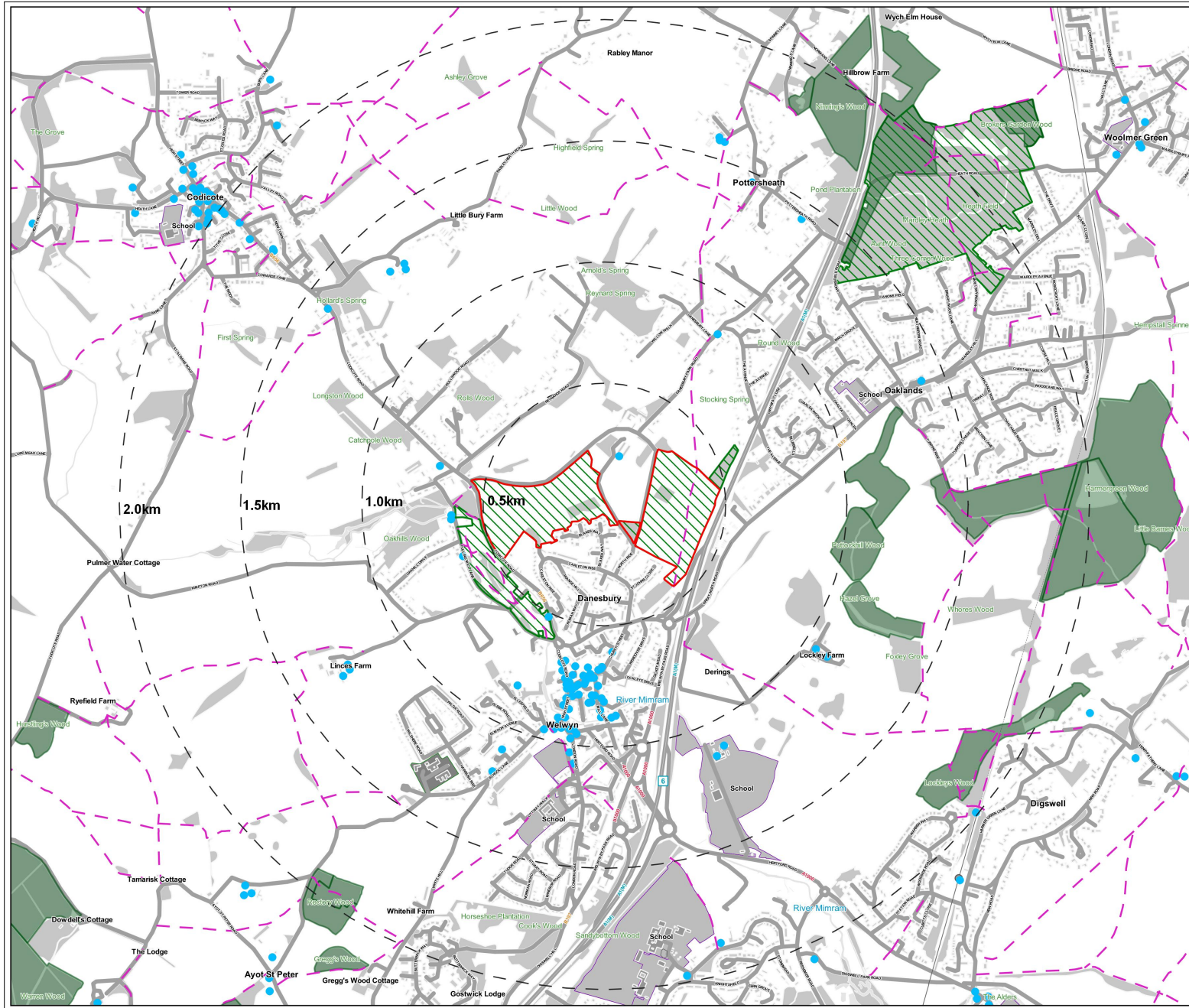
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WELWYN



Key

- Site boundary
- PROW
- Listed Buildings
- Ancient Woodland
- Local Nature Reserves

Client	Welwyn Hatfield Borough Council		
Project	Danesbury 10-Year Landscape Management Plan		
Title	Site Constraints		
Drawn	VJ	Checked	LM
Drawing No.	MH8356-001	Date	21.11.2022
		Revision	Issue

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Scale	1:16000	Original Size	A3
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2. Site Description

2.1 INTRODUCTION

Danesbury Local Nature Reserve is a historic parkland consisting of two large fields, separated by a privately-owned wedge-shaped meadow and woodland. This land is bordered by roads on each side leading to Danesbury House, and to the south is a small area of woodland owned by the WHBC called North Ride Spinney. The western field is known as Park Field and the eastern field as Fernery Field. The fields are stock fenced to allow grazing by native breed Longhorn cattle during the summer months.

Fernery Field is bordered to the south by residential housing, to the east by the A1(M), to the north by an adjacent field and Oldend Wood, and to the west by North Ride. To the southeast of Fernery Field is a fenced off area known as Clock House Meadow, although it is now an area of scrub and woodland used as a pedestrian thoroughfare to Roman Road. There is a cattle pen in the southwest corner, leading directly on to North Ride. Towards the centre of the field is the Fernery, a sunken Victorian ‘Pulhamite’ formal garden feature, restored in recent years by the Friends of Danesbury.

Park Field is bordered to the south by residential housing, to the west by Codicote Road, to the north by North Ride, and to the east by an unsurfaced track leading to Danesbury House. Recent woodland planting has taken place to the east of the field, and a small pond is located towards the centre. To the west and northwest corner of the field is an area of woodland. This woodland contains an ancient sunken track known as Ghyl Hill.

2.2 HISTORICAL CONTEXT

A 1st edition OS map from 1884 shows the Site within the extensive parkland of Danesbury House. The Fernery is evident to the southeast of the house.



Figure 3: 6-inch 1st edition OS map of Danesbury House and parkland from 1884 overlaid with the current aerial view and site boundary (© National Library of Scotland, 2022)

The use of ferns in gardens became popular in Britain in the middle of the 19th century. In 1859, James Pulham was commissioned to construct a fernery in an old chalk pit at Danesbury. The principal feature of the fernery is Pulham’s artificial rockwork, replicating the appearance of natural rock formations. The fernery was planted by the head gardener Anthony Parsons in 1860. In 1881, the Royal Horticultural Society referred to it as “the best fernery to be found in the Home Counties.” Local residents began the arduous task of restoring the Fernery in 2015 with the help of Welwyn Hatfield Borough Council. The volunteers designed, planted and continue to maintain the fernery.

Danesbury House was sold after WW1, and interest in the fernery declined. In 1964, some of the Danesbury House parkland was sold

to developers, who built the housing estate now situated to the south of the site. In 1985 the remaining third of parkland was acquired by the council. The house was a hospital for long-term patients, before being redeveloped into apartments in 1998.

The building that was formerly Danesbury House has been designated as a Grade II listed building known as 'Danesbury (Hospital) Front Block'.

2.3 LANDSCAPE CONTEXT

2.3.1 National Character Area

Natural England have produced a framework of 159 landscape profiles for England, resulting in National Character Areas (NCA). The NCA profile summarises the key features of the character area. The site is located within **NCA: 110 Chilterns**, although it is to the far northeast of this NCA profile. The boundary should be considered as a zone of transition between NCAs; therefore, the neighbouring NCAs of relevance are:

- 111: Northern Thames Basin
- 86: South Suffolk & North East Clayland
- 87: East Anglian Chalk

Whilst half of this NCA falls within the Chilterns Area of Outstanding Natural Beauty (AONB), Danesbury LNR lies approximately 16km to the east of the AONB.

The NCA consists of an outcrop of chalk stretching from East Anglia to Dorset and the South Downs, with a distinctive scarp forming the north-western boundary. The dip slope falls gently to the southeast, cut by a series of branching valleys.

While many of the valleys are dry, there are several chalk streams, with historic mills, watercress beds, culverts and habitat enhancements. Many chalk streams receive treated discharges to counter low flows caused by abstraction.

Extensive rights of way are a common feature of this NCA. Numerous parklands and woodlands are open to the public, alongside designated commons and downland. A network of motorways, major roads and railways link the towns within the NCA.

Statements of Environmental Opportunity have been drawn up by Natural England to help understand the value of each NCA. Of particular relevance to the site is SEO1: *Manage the wooded landscape, the woodlands, hedgerows, commons and parklands with the aims of conserving and enhancing biodiversity and the historic landscape and its significant features, maximising the potential for recreation.*

2.3.2 District Landscape Character

The Welwyn Hatfield Landscape Character Assessment was produced in 2005 by The Landscape Partnership Ltd. The site lies within area **133a: Danesbury Settled Slopes**. The area is described as an undulating slope with localised deep depressions and dry valleys. The primary land cover is a combination of parkland, residential areas and grassland. Land uses comprise suburban properties, pastoral fields, small woods and recreation.

The assessment highlights the influence of the former Danesbury Estate within the area, particularly its recreational and ecological value. Views are limited by topography and boundary vegetation.

The A1(M) is described as visually and audibly intrusive. The residential estate has been described as having an adverse impact on the parkland. Public access to the slopes is poor, due to limited footpaths and unofficial use of the parkland by local residents.

The area has been regarded as not distinctive, although the parkland is still of some wider interest. It should be noted that the evaluation of the parkland and wider area was conducted before the restoration of the Fernery, therefore the comments do not reflect on the current character of the site.

2.3.3 Topography

The site slopes northwards, from an elevation of 80m at the south to 110m at the central plateau. The A1(M) lies in a valley to the east, and the River Mimram to the southwest, accentuating the Site's prominent position.



Figure 4: The view from the top of Fernery Field, looking down to the A1(M) in the valley below

2.3.4 Geology and soils

The geology is a major factor in determining an area's topography and soils. These, together with the climate, determine the natural vegetation and habitats which support a range of species.

The Geology Map of Britain (developed by the British Geological Survey) shows that the site lies on chalk sedimentary bedrock, formed between 93.9 and 83.6 million years ago during the Cretaceous period.

The Soils Map of the United Kingdom (developed and hosted by Cranfield University) shows that the site lies within Soilscape 8, which is described as being slightly acid, loamy and clayey soils, with

impeded drainage. This soil type is associated with a wide range of pasture and woodland type habitats.

It should be noted that a site-based soil assessment was not carried out as part of the survey.

2.3.5 Hydrology

The only water on the reserve is a small pond located towards the centre of Park Field. The pond is ephemeral, and the water levels fluctuate seasonally.

The River Mimram flows to the southwest of Park Field within Singlers Marsh, on the west side of Codicote Road. The Mimram is a chalk stream habitat of global importance that supports water vole, otter and kingfishers.

Due to the site's elevated topography, the site falls within Flood Zone 1, which means there is a low probability of flooding, despite the close proximity to the River Mimram.

There is a risk of surface water flooding along the eastern boundary of Fernery Field due to runoff from the A1(M), and higher risk of surface water flooding in Park Field around the pond.

Both Park Field and Fernery Field have existing water connections for filling cattle troughs.

2.4 HABITATS & WILDLIFE

2.4.1 Habitats

The following habitats were identified on site:

- Good quality semi-improved grassland
- Mixed scrub
- Broad-leaved woodland
- Parkland trees
- Hedgerow
- Pond

Park Field is relatively species-rich neutral / slight-acidic, with more dominant grasses suppressed by grazing and cutting. Areas of poor species diversity are remnant of past use of agricultural fertiliser. Ragwort (*Senecio jacobaea*) and creeping thistle (*Cirsium arvense*) have frequent abundance across the field. Grassland is dominated by Red Fescue (*Festuca rubra*), Common Bent (*Agrostis capillaris*), and Cock's Foot (*Dactylis glomerata*), with Tufted Hair Grass (*Deschampsia caespitosa*) and Yorkshire Fog (*Holcus lanatus*) in damper areas.



Figure 5: The species-rich grassland in Park Field

Alongside the grasses, Park Field also contains populations of Black Knapweed (*Centaurea nigra*), which grows in extensive stands on the plateau, Common Sorrel (*Rumex acetosa*), Bird's Foot Trefoil (*Lotus corniculatus*), Ladies Bedstraw (*Galium verum*), Germander Speedwell (*Veronica chamaedrys*) and Lesser Stitchwort (*Stellaria graminea*), with Agrimony (*Agrimonia eupatoria*) and Cowslip (*Primula veris*) in the slightly more calcareous soils.

Fernery Field is more species-poor, although grazing has helped to develop a more varied sward and the establishment of grassland fungi. Following the cessation of herbicide applications, both ragwort

and creeping thistle are abundant across the field and require annual maintenance. The previous LMP noted a particular strip of higher value along the west boundary where Agrimony, Mouse-eared Hawkweed (*Pilosella officinarum*) and Germander Speedwell still occur, and a swathe along the eastern boundary close to the motorway with Red Fescue, Common Bent and Crested Dog's tail (*Cynosurus cristatus*) with herbs such as Common Cat's Ear (*Hypochoeris radicata*).



Figure 6: Mixed scrub

Mixed scrub consisting of hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*) and bramble (*Rubus fruticosus*) can be found along the boundary to Codicote Road and northern boundary of Park Field. Clock House Meadow, which is excluded from grazing, is developing a long grassland / scrub understory, which is becoming dense in places. Hawthorn and elder bushes are scattered across Fernery Field.

North Ride Spinney is a dense woodland dominated by spindly ivy-clad stems of sycamore (*Acer pseudoplatanus*), ash (*Fraxinus excelsior*), and occasional remnant beech (*Fagus sylvatica*), lime (*Tilia x europaea*) and horse chestnut (*Aesculus hippocastanum*).

The woodland has a mixed age structure, with some sycamore regeneration in more open areas where trees have fallen in recent storms. The woodland understory contains some holly (*Ilex* sp.) and a ground layer of ivy. Dog's mercury (*Mecurialis perennis*) is believed to be present, and there is some standing and fallen deadwood throughout the wood.



Figure 7: North Ride Spinney

Ghyl Hill, a sunken track along the north boundary of Park Field, is a long-standing semi-natural woodland dominated by oak (*Quercus* sp.), beech and hornbeam (*Carpinus betulus*). Although the woodland is not listed on the Ancient Woodland Inventory there are ancient woodland flora present, including the localised wild daffodil (*Narcissus pseudonarcissus*) and bluebell (*Hyacinthoides non-scriptus*).

Three woodland blocks consisting of ash (*Fraxinus excelsior*), beech and hornbeam were planted approximately 20 years ago to the east of Park Field. The understory is dominated by blackthorn (*Prunus*

spinosa), which is becoming dense in places. No ash dieback was observed on the site visit.

Oldend Wood is a 1ha circa 80-year-old plantation of secondary woodland located at the north end of Fernery Field, outside of the LNR, comprising ash, sycamore and oak. The canopy is predominantly closed which means the understorey shrub layer is limited. The eastern boundary fence is the responsibility of Highways England. The southern and western boundaries are fenced with stock netting and there is a field gate in southern boundary allowing access for any future forestry operations.

Due to the site's origins as historic parkland, there are a number of mature and veteran trees, including standing deadwood and fallen specimens. These trees have a huge value to wildlife, especially bats, owls, fungi and saproxylic invertebrates. Semi-mature establishing specimens are enclosed by post-and-rail fencing to prevent livestock damage.



Figure 8: Mature parkland trees

There is one 200m native hedgerow planted along the eastern boundary of Park Field, which has previously been laid. There are hedges around the boundary of residential properties to the south of Park Field.

There is one ephemeral pond located towards the centre of Park Field, which was dry at the time of survey. Fencing around the perimeter excludes cattle, which has enabled marginal vegetation to develop. Willow (*Salix* sp.) and hawthorn are located on the north and east banks of the pond, and have previously been managed by coppicing.



Figure 9: The pond in Park Field

2.4.2 Invasive non-native species

Danesbury Reserve is included in a borough-wide invasive species management plan for WHBC due to the presence of ragwort. Although native, ragwort is included due to the risks it poses to livestock and the necessity to control its spread under the Ragwort Control Act 2003 and Weeds Act 1959. The ragwort at Danesbury Reserve was identified as 'high risk', which means it is now subject to a control policy.

Australian stonecrop (*Crassula helmsii*) has been identified in the pond in the past, although was not noted at the time of the survey. This species is on Schedule 9 of the Wildlife and Countryside Act

1981 which means it is an offence to plant or otherwise cause to grow in the wild.

A dense stand of laurel (*Prunus laurocerasus*.) was observed on the site visit to the southwest of Park Field. The laurel is growing from neighbouring land and overhanging a path, and will continue to encroach unless managed.



Figure 10: Laurel overhanging the footpath

No Oak Processionary Moth (OPM) has been recorded at Danesbury Reserve or was identified during the site visit. However, the site lies within the Forestry Commission's 'buffer zone', where the aim is to control the spread, and there have been reports of some infested trees to the northwest of Welwyn Garden City.

There was evidence of grey squirrel (*Sciurus carolinensis*) damage to trees within the new woodland blocks in Park Field.

2.4.3 Ecological designations

The site was designated as a Local Nature Reserve (LNR) in 1998. The site is also a Wildlife Site (WS14 'Danesbury Park').

Under the terms of acquisition, the land may be used only for wildlife conservation and public access and enjoyment.

2.4.4 Tree preservation orders

Spinney Wood and Clock House Meadow both have a TPO (TPO1 W2 1972 and TPO 716 (2017) W1 respectively). The woodland within Ghyl Hill, to the northwest of Park Field, also has a TPO (TPO1 G2 (1972)). There are also numerous individual trees with TPOs in Fernery Field and Park Field.

Consent must be granted from WHBC before any work is undertaken on any trees covered by a TPO. There are exemptions from getting consent that apply in certain circumstances, including acquisition of a Forestry Commission Felling Licence, and undertaking surgery works where the trees (or parts of trees) are dead or dangerous. In the latter situation, at least five days' notice (if possible) should be submitted to the council in writing. In all cases, professional advice should be sought and careful photographic records should be kept of the condition of the tree before any work is carried out.

2.4.5 Wildlife

Danesbury Reserve has significant ecological importance due to its grassland and floral assemblages which have developed over years of continuous grazing, without reversion at any time to arable farming or other land uses.

Many species of bird have been recorded in the local area, including notable species such as skylark and yellowhammer. Local volunteers from the Hawk and Owl Trust, working with the Friends of Danesbury, monitor the owl and kestrel boxes on site.

It is likely the site is used by bats to forage and roost in the parkland trees and neighbouring North Ride Spinney and Oldend Wood. The surrounding area has been identified as having the potential to

support barbastelle (*Barbastella barbastellus*), Daubenton's (*Myotis daubentonii*), Natterer's (*Myotis nattereri*) and brown long-eared bat (*Plecotus auritus*).

Danesbury Reserve is likely to support a number of more common mammals, including fox (*Vulpes vulpes*), wood mouse (*Apodemus sylvaticus*), hedgehog (*Erinaceus europaeus*) and common shrew (*Sorex araneus*). Rabbits (*Oryctolagus cuniculus*) graze the grassland, keeping the sward short. There is evidence of rabbit damage within the restored Fernery, despite a perimeter of rabbit fencing. This suggests there may be a warren within the Fernery.

The grassland and scrub margins have good potential for supporting reptiles, such as grass snake (*Natrix helvetica*), common lizard (*Zootoca vivipara*), and slow worm (*Anguis fragilis*).

Amphibians such as the common frog (*Rana temporaria*) may use the pond within Park Field; however, there are no known records of great crested newt (*Triturus cristatus*).

Flower-rich grassland supports a large number of insects, including numerous species of butterflies. The previous LMP listed species such as Small Heath (*Coenonympha pamphilus*), Small Copper (*Lycaena phlaeas*), Common Blue (*Polyommatus icarus*) and Marbled White (*Melanargia galathea*).

Many species of fungi were observed on the trees and decaying wood throughout the site, including *Gandoderma* spp, *Inonotus hispidus*, *Fistulina hepatica*, and *Armillaria mellea*.

2.5 ACCESS & FUNCTION

The site is primarily used by local people for dog walking and informal recreation. There is open pedestrian access at all times of the year from a number of kissing gates around the boundaries. There is one public right of way (PROW) through the site, although many informal permissive paths have been created, evident through ground erosion.



Figure 11: An informal pathway marked by ground erosion

The majority of gates restrict access for wheelchairs and pushchairs, and there are some steps located off the main path through Ghyll Hill.

Bins for litter and dog waste are located at key entrances to the site, although some of these were black bin bags tied to the fence.

Benches are located at key viewpoints within Park Field and The Fernery.

Signage informing members of the public that cattle are grazing is put up on all public entrances to the fields during the grazing months. An interpretation board has recently been installed outside the Fernery, detailing the history and restoration works. The Fernery has also been waymarked from Carleton Rise.



Figure 12: Signage on a kissing gate entrance to the Fernery

There is no car park for the reserve, but there is limited parking available on adjacent residential roads.

2.6 SITE MANAGEMENT

All boundaries around the nature reserve are the responsibility of WHBC, with the exception of the Danesbury House boundary along the unsurfaced track, and the fenced boundary adjacent to the A1(M) on the east of the reserve.

The reserve has been managed for the past 10 years under the terms of a Higher-Level Stewardship Agreement with Defra; a five-year extension has just been agreed and secures further grants until 2028. The land was originally entered into a 10-year Stewardship scheme in 1992 in order to support the re-establishment of grazing, and this was successively renewed in 2002 and 2012.

English Longhorn cattle graze the grassland from June to mid-July on Fernery Field, and from mid-July to the end of September on Park Field. Grazing is purely for conservation management, with a low stocking density of 10-12 cattle in order to achieve a balance for optimal grassland and scrub management. WHBC receives a grant from Defra for using rare-breed cattle to improve the quality of the sward and to control weeds.



Figure 13: Longhorn cattle grazing

Some areas of Danesbury Reserve are excluded from grazing including the Fernery and Clock House Meadow in Fernery Field, and the southeast, west and perimeter path around Park Field. The areas of un-grazed grassland outside the paddocks in Park Field are left un-cut or topped at the end of September by an agricultural contractor.

The combination of grazing and cutting allows diversity in the grassland structure in the summer months, encouraging populations of small mammals and insects, and allowing wildflowers to set seed.

Ragwort is controlled by a combination of spot-treatment using a suitable herbicide and hand pulling by a contractor. Control is focussed along neighbouring boundaries to prevent encroachment. Due to its toxicity to livestock, ragwort is monitored and the cattle are moved out before it becomes palatable or too abundant.

Paths around the perimeter of Park Field are mown when required by a contractor.

Only essential health and safety remedial tree works are carried out on site. This is to allow trees to develop features that support wildlife as they die and decay. Fallen deadwood is not cleared unless it causes an obstruction. Some work to thin blackthorn in the woodland blocks has also been undertaken by the council.

Volunteers have become an integral part of the restoration and management of Danesbury since the Site's acquisition in the 1990s. The Friends of Danesbury hold regular work parties, both around the reserve and in the Fernery. Within the reserve, work includes scrub bashing, maintaining paths and sapling removal. Willow was coppiced around the pond by volunteers in autumn 2022, and the hedge along the east boundary of Park Field was laid in 2012.

Work to begin the restoration of the Fernery started in 2015. The council supplied materials, provided training and organised contracting and tree works. The volunteers cleared the scrub and undergrowth, followed by careful excavation by a contractor to discover the extent of the rock work. The old water supply to the well and grotto was investigated, and the Victorian railing was excavated and re-installed around the perimeter. Several local gardeners and a designer re-imagined the Fernery, and a variety of species, including ferns selected by the British Pteridological Society, have been planted to surround the garden. The garden was opened in 2017 and 2018 as part of Welwyn Festival Week, attracting many visitors.



Figure 14: The restored Fernery

The restoration of the Fernery has helped to promote local interest and awareness of the reserve, increasing the site's value to the community as an important green space.

3. Policy Context

3.1 INTRODUCTION

The following paragraphs summarise a few of the key areas of legislation and policy that direct the actions and responsibilities of WHBC with regard to the management of Danesbury LNR.

3.2 NATIONAL POLICY

3.2.1 National Planning Policy Framework

The National Planning Policy Framework (NPPF) was published by the Ministry of Housing, Communities & Local Government (MHCLG) and last updated in July 2021. The NPPF sets out the national planning policies for England and how these are expected to be applied.

Some of the key messages from the NPPF which are of relevance to the Site and its context include:

- Conserving and enhancing the natural environment by protecting and enhancing “valued landscapes” and sites of biodiversity or geological value / soils. Recognise the intrinsic character and beauty of the countryside, and the wider benefits of natural capital and other ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- Taking opportunities to minimise impacts on and provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- Recognising that heritage assets are an “irreplaceable resource” and that they should be conserved and enhanced in a manner commensurate to their “significance.” Accounting for the desirability of making a positive contribution to local character and distinctiveness and

- exploring the opportunities to draw on the contribution made by the historic environment to the character of a place; and
- Considering the effects of climate change and support the transition to a low carbon economy. Plan for climate change, ensuring that risks are appropriately managed through suitable adaptation measures, including through the planning of well-designed green infrastructure.

3.2.2 Improving Access to Greenspace: A New Review For 2020

This report sets out the importance of greenspace as being increasingly recognised as an important asset for supporting health and wellbeing. The report also highlights how ‘natural capital’ can help local authorities address local issues, help improve health and wellbeing, manage health and social care costs, reduce health inequalities, improve social cohesion and take positive action to address climate change. This report also makes the case that we must not lose sight of our growing population’s need for greenspace.

3.2.3 A Green Future: Our 25 Year Plan to Improve The Environment

A Green Future was published in 2018 by the Department for Environment, Food & Rural Affairs (DEFRA) and sets out the Government’s actions to help the natural world regain and retain good health. The 25 Year Environment Plan aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats. The plan sets out a number of goals and also identifies six key areas for action which includes (but not limited to): “*Recovering of nature and enhancing the beauty of landscapes.*”

3.3 LEGISLATION

3.3.1 The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities (NERC) Act makes provision in connection with wildlife, Sites of Special Scientific Interest (SSSI), National Parks and the Broads, amends the law relating to public rights of way, makes provision as to the Inland Waterways Amenity Advisory Council and provides for flexible administrative

arrangements in connection with functions relating to the environment and rural affairs.

Section 40 of the NERC Act states that every public body, including local authorities, must in exercising its functions, have regard to the purpose of conserving biodiversity. Conserving biodiversity includes restoring or enhancing a species population or habitat.

3.3.2 *The Occupier's Liability Act 1957 and 1984*

The Occupier's Liability Act amends the law of England and Wales as to the liability of the occupiers of premises for injury suffered by persons other than their guests. The occupier of a premises owes a duty to another (not being a visitor) in respect of any known danger associated with a risk or if they have reasonable grounds to believe the danger exists. The occupier owes a duty if they know or believe that another is in the vicinity or danger or may come into the vicinity of danger, and the risk is one against which they may reasonably be expected to offer protection against. Any duty owed by virtue may be discharged by taking steps to give warning of the danger or by discouraging persons from incurring the risk.

3.3.3 *The Wildlife and Countryside Act 1981*

The Wildlife and Countryside Act 1981 is an Act of UK Parliament which gives protection to native species, enhances the protection of SSSIs and builds upon the rights of way rules in the National Parks and Access to the Countryside Act 1949. Birds, their nests and eggs are protected from injury and certain methods of killing and injuring are prohibited. Animals listed on Schedule 5 and their places of shelter and protection are protected from being killed injured or taken. Wild plants listed in Schedule 8 are protected from being uprooted and sold. The act contains measures for preventing the establishment of non-native species listed in Schedule 9 which may be detrimental to native wildlife.

3.3.4 *The Countryside and Rights of Way Act 2000*

The Countryside and Rights of Way (CRoW) Act 2000 (as amended) is an Act of UK Parliament normally gives a public right of access to

land mapped as 'open country' or registered common land. These areas are known as 'open access land'. Public rights of way are typically listed and described in Definitive Maps and Statements (legal records of public rights of way) usually held at a local authority's office or library.

3.4 LOCAL POLICY

3.4.1 *Welwyn Hatfield Borough Council Draft Local Plan 2013-2032*

The Draft Local Plan is not yet adopted but will eventually supersede the existing local development plan documents and provide the basis for assessing all development until 2032. The policies considered of relevance to the Site are summarised below:

Policy SP11 – Protection and enhancement of critical environmental assets

The protection, enhancement and management of the environmental, ecological and historic assets within the borough, will be sought commensurate with their status, significance and international, national and/or local importance.

Development that would secure positive improvements to and ensure the long-term conservation of ecological and heritage assets for the enjoyment of future generations will be supported,

Policy SP12 – Strategic Green Infrastructure

The Council will actively support the creation and enhancement of strategic green infrastructure across the borough. Opportunities to link existing green spaces and to improve public access and amenity will be supported in order to provide a comprehensive network of functional and linked spaces for the benefit of wildlife, biodiversity and the community.

Priorities for the creation and enhancement of green infrastructure include river corridors and sites designated for their nature conservation, heritage and/or landscape value.

Policy SADM15 – Heritage

With reference to the Fernery and wider parkland, proposals which affect designated heritage assets and the wider historic environment should consider:

- The potential to sustain and enhance the heritage asset and historic environment in a manner appropriate to its function and significance.
- Successive small-scale changes that lead to a cumulative loss or harm to the significance of the asset or historic environment should be avoided.
- Proposals should respect the character, appearance and setting of the asset and historic environment in terms of design, scale, materials and impact on key views.
- Architectural or historic features which are important to the character and appearance of the asset should be retained unaltered.
- The historic form and structural integrity of the asset are retained.

Policy SADM 16 – Ecology and Landscape

Proposals will be expected to maintain, protect and wherever possible enhance biodiversity, the structure and function of ecological networks and the ecological status of water bodies.

Proposals will be expected to help conserve and enhance the borough's natural and historic landscape, and sit comfortably within the wider landscape setting. Proposals should take full account of the relevant Landscape Character Assessment and adopt the strategy and guidelines for managing change.

4. Analysis & Evaluation

4.1 INTRODUCTION

This section of the management plan constitutes an analysis of the current condition of Danesbury Reserve compared to the 2013-2023 Management Plan, and whether it is achieving its full potential. It takes the factual information set out in the Site Description a stage further by discussing the quality of important features alongside any identified threats and issues, combined with the aspirations of Welwyn Hatfield Borough Council. This evaluation will determine the aims, objectives and future management actions for Danesbury Reserve over the next ten years.

4.2 CONTINUATION OF MANAGEMENT & FUNDING

The previous 10-Yr LMP for Danesbury LNR had at its core the following vision;

Danesbury Local Nature Reserve will continue to retain its historic parkland landscape characteristics with cattle-grazed grassland, older trees in senescence and younger trees, both naturally regenerated and planted. There will continue to be attractive views across the Mimram valley to south-east and west.

Grassland habitats will include short, grazed swards and longer tussocky grassland containing flowers and grasses which attract a wide range of insects as food for birds and mammals. The grassland will continue to support fungi, especially waxcaps.

The nature reserve will be a popular and much-loved local green space, used by local families and schools as well as ramblers and naturalists. Pedestrian access will be well maintained.

The Friends of Danesbury Park will continue to work in close partnership with the council providing much valued skills, energy and enthusiasm.

It would appear that through the delivery of the LMP and ongoing management this vision is being met with a great deal of success. Maintenance through HLS-funded cattle grazing with native English Longhorns has helped to retain historic landscape character, and enabled associated habitats and species to thrive. During the last 10-years, the heritage and amenity value of the site has greatly

increased due to the restoration of the Fernery, which has been a fantastic achievement for the Friends of Danesbury Fernery and WHBC.

In essence, Danesbury LNR is continuing to achieve everything it has previously set out to achieve, and therefore ongoing management will largely be a continuation of this success story. A significant part of this will be the production of a new Higher Level Stewardship application in 2023 to secure a further 5 to 10-years of funding to support ongoing management.

4.3 WOODLAND MANAGEMENT

The previous LMP identified both North Ride Spinney and Oldend Wood as requiring thinning operations, in particular the former which is a mass of closely spaced spindly stems with a closed canopy creating a dark, gloomy understorey. This work had been intended to take place in 2020-25, so it is timely to be considering implementing operations over the first couple of years of the new LMP.



Figure 15: Oldend Wood

Newer woodland plantations within Park Field (including the woodland block surrounding the pond) were initially thinned to encourage oak and beech, with a recommendation to undertake further thinning at 5-year intervals to promote healthy development. Assessment of these groups on Site would suggest this is still the case, with an additional requirement to continue halting the spread of blackthorn scrub which has so far been tackled by the Friends group.

There is potential in the future for this area to be opened up to cattle grazing.

Any woodland thinning works would require a Felling Licence from the Forestry Commission.

4.4 TREE RISK MANAGEMENT

Danesbury LNR contains many large trees and woodlands of varying ages and states of condition; as such it is not uncommon for trees to drop limbs and deadwood, or to fracture and fall.



Figure 16: Fallen tree left in-situ

To date, site management has taken a pragmatic approach to tree safety, through undertaking regular Tree Safety Inspections and commissioning remedial work to high-risk trees as required, but also allowing trees to naturally decline and seeking to retain both standing and fallen deadwood. This approach is of huge benefit to wildlife, and far more cost-effective for WHBC budgets. It also sends an important message to visitors about the nature of the site and not to expect a sanitised, formal park.

It is likely that in the not-too-distant future, the Site will start to see populations of Oak Processionary Moth (OPM), particularly given the abundance of oak trees present. As with any other tree-related issue, it is recommended that a risk-based approach is taken to OPM management, involving a process of survey, risk assessment, and then hand-removal of nests only where there is significant risk to the public. In general terms, it is likely that a similar signage campaign to the grazing posters will be sufficient in warning the public of its presence and proceeding with caution.

4.5 GRASSLAND MANAGEMENT

Conservation grazing of the grasslands at Danesbury are key to the site's continued biodiversity value. Cattle are non-selective grazers, which means they leave areas of longer, tussocky coarse grasses and areas of bare ground to create a diverse structure. This allows wildflowers to grow, flower and set seed, providing a suitable habitat for a wide range of wildlife.

There are areas within Park Field that are not currently grazed and are instead machine-cut towards the end of September. Although this adds to the structural diversity across the site, WHBC should be looking to reduce the reliance on mechanical cutting in the future. There is the possibility to expand the areas grazed in Park Field. Consultation with a grazier will establish the optimal stocking density and most suitable time of year to create varied habitats across the site, and required changes to associated infrastructure.

4.6 SCRUB MANAGEMENT

The grazing of cattle withing Fernery Field and Park Field has helped to keep scrub development and encroachment to reasonable levels, although it will continue to be of great importance to monitor this and to enable additional cutting back where required.

Clock House Meadow is an area of the Site that isn't grazed, and as a result is starting to see scrub habitats become increasingly dominant. This is an area that would benefit from intervention by the

Friends Group or Contractors to prevent grassland habitats being lost.

4.7 INVASIVE SPECIES

Continued monitoring and control of invasive species is likely to always be an issue for Danesbury LNR, and something that management will need to adapt with as required.



Figure 17: Fernery Field showing ragwort (out of flower)

Both ragwort and creeping thistle were identified in the previous management plan as a threat to grassland condition, and this is still very much the case. Management over the next ten years will continue to employ hand pulling, spot treatment with weedkiller, and/or additional cutting to restrict the dominance of these species.

The presence of *Crassula helmsii* in the pond was recorded in the previous LMP with a recommendation for hand-removal. This is a Schedule 9 species that can quickly come to dominate ponds and waterbodies, suppressing all other marginal vegetation; it can also propagate from the tiniest of cuttings so a great risk to any intrusive management. It is recommended that a detailed inspection for *Crassula helmsii* is undertaken to check on its current rate of spread and, dependent upon findings, there may be a need for a bespoke management plan to set out a proposal for eradication.

Although cherry laurel is not Schedule 9 species, it does have invasive tendencies and can develop into a management issue. It would be beneficial to undertake cutting back of the off-site mature laurel hedgerow adjacent to Park Field with arisings removed from site, but also worth a discussion with the landowner to explore whether there is a shared aspiration for total removal and replacement with a native hedgerow.

4.8 ACCESS & AMENITY

The restoration of The Fernery has created a real focal point for Danesbury LNR, and the provision of accompanying welcome signage, interpretation panel, and benches helps to make it a destination for visitors.

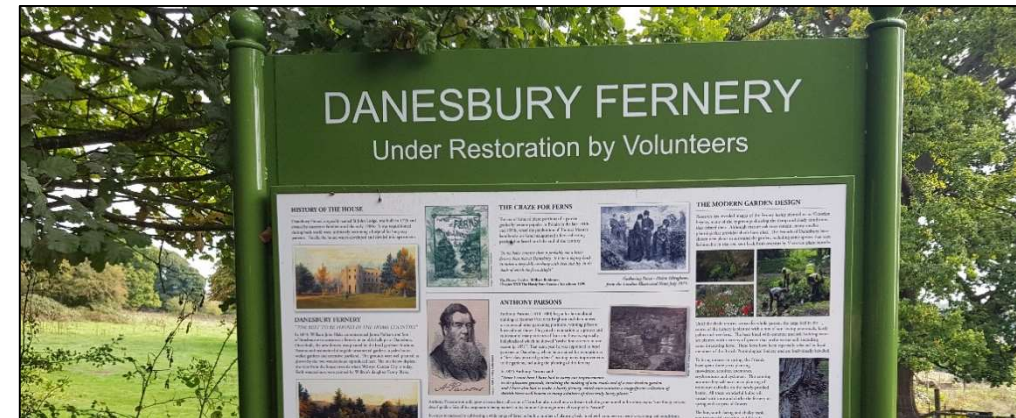


Figure 18: Danesbury Fernery interpretation board

The previous management plan had an aspiration to provide welcome boards at all Site entrances, but this action has yet to be achieved, likely due to lack of budget. This will therefore continue over to the new plan with an aim to understand the costs for a signage scheme, and to secure either internal or external budget. It is recommended that these signs are map-based and include for clear trails around the Site, with the potential to waymark these in the future.

It was noted on site that there is an absence of litter bins, and instead in one place there was a black bin bag tied to a fence. There may well be a strategic reason for the absence of bins and an aspiration to encourage site users to be respectful and take litter home. However, if there are continued issues with litter and waste, it may be worth considering the addition of one or two extra bins at site entrances.

5. Aims & Objectives

5.1 VISION STATEMENT

Danesbury Local Nature Reserve will continue to retain its historic parkland landscape characteristics with cattle-grazed grassland, older trees in senescence and younger trees, both naturally regenerated and planted. There will continue to be attractive views across the Mimram valley to south-east and west.

Grassland habitats will include short, grazed swards and longer tussocky grassland containing flowers and grasses which attract a wide range of insects as food for birds and mammals. The grassland will continue to support fungi, especially waxcaps.

The nature reserve will be a popular and much-loved local green space, used by local families and schools as well as ramblers and naturalists. Pedestrian access will be well maintained.

The Friends Groups will continue to work in close partnership with WHBC providing much valued skills, energy and enthusiasm.

5.2 AIMS & OBJECTIVES

The vision for Danesbury Reserve will be achieved through the following Aims and Objectives, and implementation of the Action Plan in Chapter 6. This Landscape Management Plan aims to support the requirements of the next Higher Level Stewardship Scheme.

A To secure, maintain and enhance the significant biodiversity value of Danesbury LNR

- A1 Undertake regular monitoring of invasive species present on site and treat as required.
- A2 Continue to undertake conservation grassland management, and seek opportunities to increase the area that is managed through grazing.

- A3 Continue to allow trees to go into senescence unless causing an unmanageable health and safety risk to the public.
- A4 Undertake sensitive management operations to improve the condition of woodlands.
- A5 Carry out targeted scrub management and coppicing where impacting on other important habitats.
- A6 Regularly monitor the effectiveness of capital and maintenance operations, and adapt this LMP as required.

B To enable visitors and volunteers to continue to safely access and enjoy Danesbury LNR.

- B1 Maintain a network of accessible, waymarked routes and entrances.
- B2 Install a new site signage scheme, and additional seating, bins etc.
- B3 Undertake regular site-risk assessments and resultant works related to access, trees and cattle.
- B4 Continue to share updates through social media, newsletters and on-site signage.

C To secure the financial stability of Danesbury LNR

- C1 Develop and submit a new Higher Level Stewardship application.
- C2 Seek internal and/or external funding to support any additional capital projects, such as signage.

6. Action Plans

The following Action Plan section is divided into two tables. The first is a Capital Work Programme, covering all one-off items that will be delivered throughout the ten-year life span of the Management Plan. Each action is preceded by one or more objective references, and where appropriate suggests responsible parties and timescales.

The second table contains an Annual Maintenance & Monitoring Schedule including all of the regular tasks required to maintain the site in a positive condition. It should be noted that the schedule does not include for any reactive remedial works and standalone operations that will be determined by future management plan meetings.

6.1 CAPITAL WORKS PROGRAMME

Ref	Item	Description of Works	Year	Timing / Restrictions	Responsibility	Quantity	Unit	Pre-commencement Actions
CW1a	Higher Level Countryside Stewardship Scheme – Early Discussions	Discussion with Natural England Officer about viability of extending existing HLS agreement by 5-years as opposed to submitting a full application (an extension letter will likely be sent to WHBC from the RPA).	1	TBC	WHBC	n/a	n/a	-
CW1b	Higher Level Countryside Stewardship Scheme – Application	Preparing all required forms, documents and maps in support of the HLS application / extension.	1	TBC	WHBC	n/a	n/a	-
CW2	Woodland Management – Planning	Forestry Consultant to assess and specify required thinning operations for North Ride Spinney and Oldend Wood, and any other associated works. Production of either an FC Woodland Management Plan OR Felling Licence, as required.	1	n/a	Forester	1	Item	-
CW3	North Ride Spinney	North Ride Spinney to be thinned by a third, focussing on the removal of spindly ash and sycamore, and halo-thinning around any remnant parkland trees. Temporary closure of permissive route through woodland to be marked by signs at each entrance. Volunteers to use brash generated to create habitat piles / hibernacula, and to line the pathway to prevent the creation of informal routes.	1-2	Sep – Feb	Contractor	TBC	Tonnes	Pre-commencement ecological walkover survey to confirm absence of protected species
CW4	Oldend Wood	Oldend Wood to be thinned by up to a third – focus for thinning operation to be determined through action CW2, but should include for identifying and halo thinning around any remnant parkland and/or veteran trees. Volunteers to use brash generated to create habitat piles and hibernacula.	2-3	Sep – Feb	Contractor	TBC	Tonnes	Pre-commencement ecological walkover survey to confirm absence of protected species
CW5a	Welcome Signage – Brief & outline costs	Put together a Brief describing the aims of a map-based welcome / interpretation signage scheme, including broad ideas about numbers, size, locations, materials and content. Consider inclusion of waymarkers and routes as part of the brief. Send the brief to Signage companies / Contractors to seek a rough idea of costs.	1	n/a	WHBC	n/a	n/a	Include the Friends Group in production of the Brief.

Ref	Item	Description of Works	Year	Timing / Restrictions	Responsibility	Quantity	Unit	Pre-commencement Actions
CW5b	Welcome Signage – Funding	Identify any internal capital budget for delivering a signage scheme, or start to explore potential options for external funding support.	1-2	n/a	WHBC	n/a	n/a	-
CW5c	Welcome Signage – Design	Further to confirmation of funding, adapt the previous outline brief into a full brief & specification, including text and images. Brief to be sent to companies for costing, in accordance with WHBC Procurement rules.	TBC	n/a	WHBC	n/a	n/a	Include the Friends Group in production of the full Brief.
CW5d	Welcome Signage – Production & Installation	WHBC to commission a company (or companies) to design, produce and install welcome signage.	TBC	n/a	WHBC	n/a	n/a	-
CW6a	Site furniture – Litter Bins	Consider installation of more litter bins at site entrances (if required); to include for collection.	2	n/a	WHBC; FoG	TBC	No.	Discuss with Friends Groups
CW6b	Site furniture – Benches	Consider installation of a few more benches throughout the site in key locations. Timing and quantity will depend upon budget availability.	2	n/a	WHBC; FoG	TBC	No.	Discuss with Friends Groups
CW7a	Park Field Plantations – Thinning	Undertake sensitive selective thinning of trees within the plantations on Park Field (including surrounding the Pond); favour retention of oak and beech, and aim to reduce by around a third. Thinning could take place over the course of 2-3 seasons to spread cost and impact	3-5	Sep - Feb	WHBC	TBC	No.	-
CW7b	Park Field Plantations – Scrub management	Undertake clearance of blackthorn scrub where becoming dominant within plantations. Arisings to be collected and removed from site or piled in a designated area for habitat creation or decomposition. Works to be undertaken by the Friends Group where feasible.	3-5	Sep - Feb	WHBC; FoG	50	m ²	Quantity is an approximate amount per year.
CW7c	Park Field Plantations – Grazing	Further to completion of thinning operations and scrub management, review potential to open up grazing to this area of Park Field. This will require an exercise to specify and cost the required changes to infrastructure, consideration over impact on stocking density, and communication with Natural England over funding agreement.	6	n/a	WHBC; Grazier; Natural England	n/a	n/a	-

Ref	Item	Description of Works	Year	Timing / Restrictions	Responsibility	Quantity	Unit	Pre-commencement Actions
CW8	Bulb planting in North Ride Spinney	Undertake planting of swathes of native bulbs (i.e. daffodils, bluebells, snowdrops etc) within North Ride Spinney, focussing on areas either side of the path. Species and numbers to depend on budget availability; planting to take place after thinning operations.	2	Sep - Oct	WHBC; FoG	TBC	No.	-
CW9a	Park Field Cherry Laurel – Communication	Discuss cherry laurel management with neighbouring landowner.	3	n/a	WHBC	n/a	n/a	-
CW9b	Park Field Cherry Laurel – Option A Pruning	OPTION A – Reduce back off-site cherry laurel to boundary fence, opening up adjacent footpath. Arisings to be collected and removed from site.	3	Sep – Feb	Contractor or FoG	55	L m	-
CW9c	Park Field Cherry Laurel – Option B Removal & replanting	OPTION B – Remove cherry laurel hedgerow with all arisings to be collected and removed from site. Replant with a native mixed species hedgerow.	3	Sep – Feb	Contractor & FoG	55	L m	-
CW10a	Park Field Pond – Coppicing	Undertake sensitive coppicing of surrounding hawthorn and willow to maintain levels of light into the pond and reduce uptake of water. 50% to be coppiced every 3-4 years.	1, 4, 7	Sep - Feb	FoG	5	No.	Approx. 5 no. trees per operation
CW10b	Park Field Pond – <i>Crassula helmsii</i> Survey	Undertake a survey for <i>Crassula helmsii</i> and (if required) produce a Management Plan to guide treatment.	1	May - Jul	Consultant	1	Item	-
CW10c	Park Field Pond – <i>Crassula helmsii</i> Treatment	Undertake treatment for <i>Crassula helmsii</i> in accordance with Management Plan.	2 <	TBC	Contractor	1	Item	-
CW11	Clock House Meadow – Scrub Management	Targeted cutting back of scrub vegetation and low branches of surrounding trees/shrubs where starting encroach into grassland.	2, 5, 8	Sep – Feb	FoG or Contractor	1	Item	Identify extent of work required prior to undertaking operations
CW12	Site access – Improved entrances	Consider upgrading to provide disabled access, without compromising livestock security and preventing access to vehicles.	1	n/a	WHBC	TBC	No.	Discuss ideas with local residents and establish funding support



Legend

- Site Boundary
- Internal Fence
- River
- Public Right of Way
- Managed Pathway
- Steps
- Access Point
- The Fernery
- Parkland (grazed)
- Parkland (cut)
- Pond
- Woodland
- Cattle Pen
- Bench

Drawing Status

ISSUE

Client

Welwyn Hatfield Borough Council

Project

Danesbury Landscape Management Plan

Title

Site Action Plan

Scale 1:3500

Drawn VJ

Date 09/12/2022

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6.2 ANNUAL MAINTENANCE & MONITORING SCHEDULE

Ref	Item	Detail	Start	End	Frequency	Years	Quantity	Unit	Responsibility
AM1a	Grazing – Annual inspection	Undertake a walkover check of all grazing infrastructure including gates, fences, corral, and troughs.	Apr	May	Annual	All	1	Item	Grazier
AM1b	Grazing – Posters	Put up site posters informing the public about the re-introduction of grazing on site.	Jun	Jun	Annual	All	1	Item	Grazier
AM1c	Grazing – Fernery Field	Cattle to be re-introduced to Fernery Field.	Jun	Jul	Annual	All	1	Item	Grazier
AM1d	Grazing – Park Field	Cattle to be moved to Park Field.	Jul	Sep	Annual	All	1	Item	Grazier
AM1e	Grazing – Monitoring	Ongoing monitoring visits to check on cattle and infrastructure.	Jun	Sep	Annual	All	1	Item	Grazier
AM1f	Grazing – Remove cattle	Cattle to be removed from site; also remove signage.	Sep	Sep	Annual	All	1	Item	Grazier
AM2a	Park Field – Perimeter Path – Vegetation / bramble management	Cut back bramble scrub and branches bordering the perimeter path; include for clearing overhanging vegetation at entrances.	Jan	Feb	Biennial	2,4,6,8,10	680	L m	Contractor
AM2b	Park Field – Perimeter Path – Grass cutting	Undertake a flail cut of grass perimeter path around Park Field. 2no. cuts per annum	May	Aug	Annual	All	1300	L m	Contractor
AM3a	Ragwort control – Survey	Undertake an annual walkover check for ragwort to assess abundance and spread. Walkover check could include other INNS.	Jun	Jul	Annual	All	1	Item	WHBC or Consultant
AM3b	Ragwort control – Removal	Undertake hand pulling of ragwort with volunteers and/or contractors, OR undertake spot treatment with glyphosate-based herbicide.	Jul	Aug	Annual	All	1	Item	FoG; Contractor
AM4	Clock House Meadow – Vegetation Management	Undertake flail cutting of grass and ruderal vegetation. Allowance for 2 no. cuts per annum	May	Aug	Annual	All	0.15	L m	Contractor
AM5	Fernery – Horticultural management	Undertake various horticultural tasks in Fernery Garden incl. watering, weeding, pruning, replacement planting etc.	Apr	Aug	Annual	Item	1	Item	FoG

Ref	Item	Detail	Start	End	Frequency	Years	Quantity	Unit	Responsibility
AM6	Park Field Pond – Marginal vegetation management	Undertake gentle raking out and cutting back of marginal vegetation growing around the pond, and any emergent saplings or scrub species. Frequency of works to be determined by monitoring. Aim to leave minimum 25% cover. All arisings to be removed from site. Care to be taken over potential presence of <i>Crassula helmsii</i>	Sep	Nov	Annual (if required)	All	1	Item	FoG
AM7	Tree Safety Inspection & OPM Survey	Lantra-qualified Professional Tree Inspector to undertake a Tree Safety Inspection every 3 years; any trees with significant defects requiring remedial works will be recorded in a detailed report. Survey to include for inspecting oak trees for evidence of OPM	Jan	Dec	Every 3 years	1,4,7,10	1	Item	WHBC

7. Monitoring & Review

The Danesbury LMP is intended to cover a period of ten years, from 2023 to 2033. Monitoring will be used to measure the success of ongoing management and any capital enhancement works on site and to determine how site usage and habitats are responding to the changes. This information will then be utilised to modify management operations as required.

7.1 ANNUAL MANAGEMENT MEETINGS

It is recommended that annual management meetings are held between WHBC, Friends Groups and contractors in order to review the progress of site management for the current year, and to agree the work programme for the forthcoming year. This approach will allow management objectives to be adjusted through the course of this plan or as and when the conditions on site change in response to management.

7.2 MANAGEMENT PLAN REVIEW

The management plan is intended to run for a period of ten years in which time it is hoped that the majority of the actions set out within the Capital Works Programme will be completed. At the end of the ten-year period, a meeting will be held with the landowner and all relevant stakeholders to discuss the progress of the plan and review successes, failures, and lessons learnt. The process of reviewing and amending the document, and the preparation of new action plans, will help build a new plan for the period 2033 - 2043.

8. References

British Geological Society, 2022. *Geology Viewer*. Available at: <https://geologyviewer.bgs.ac.uk>

Cranfield University, 2022. *Soilscapes*. Available at: <https://www.landis.org.uk/soilscapes/>

Defra, 2022. *MAGIC*. Available at: <https://magic.defra.gov.uk/MagicMap.aspx>

Defra, Fera and Forestry Commission, 2022. *OPM Resources Hub*. Available at: <https://opmhub.fera.co.uk/>

Environment Agency, 2022. *Flood risk information for planning*. Available at: <https://flood-map-for-planning.service.gov.uk/>

Hofstetter C., 2013. *Contour Map Creator*. Available at: <https://contourmapcreator.urgr8.ch/>

National Library of Scotland, 2022. *Ordnance Survey maps*. Available at: <https://maps.nls.uk/os/index.html>

Natural England, 2013. *National Character Area Profile: 110 Chilterns*.

Natural England, 2022. *Danesbury Park LNR*. Available at: <https://designatedsites.naturalengland.org.uk/SiteSearch.aspx>

The Landscape Partnership Ltd, 2005. *Welwyn Hatfield Landscape Character Assessment*

Welwyn Hatfield Borough Council, 2013 (updated 2020). *Danesbury Local Nature Reserve, Welwyn, Hertfordshire, Management Plan 2013 – 2023*

Welwyn Hatfield Borough Council, 2016. *Draft Local Plan Proposed Submission*