

IVEL SPRINGS

GREENSPACE ACTION PLAN (GAP)

2015 – 2020



January 2015



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1 SITE SUMMARY

Name	Ivel Springs Local Nature Reserve
Address	North Road Baldock SG7 5BX
Grid ref	North Road Entrance & Car Park TL 524264 234452 Norton Road Entrance TL 524090 234130
Size	15 ha (37 acre)
Owner	North Herts District Council
Designations	Scheduled Ancient Monument (SAM) Local Wildlife Site Metropolitan Green Belt Local Nature Reserve

VISION STATEMENT

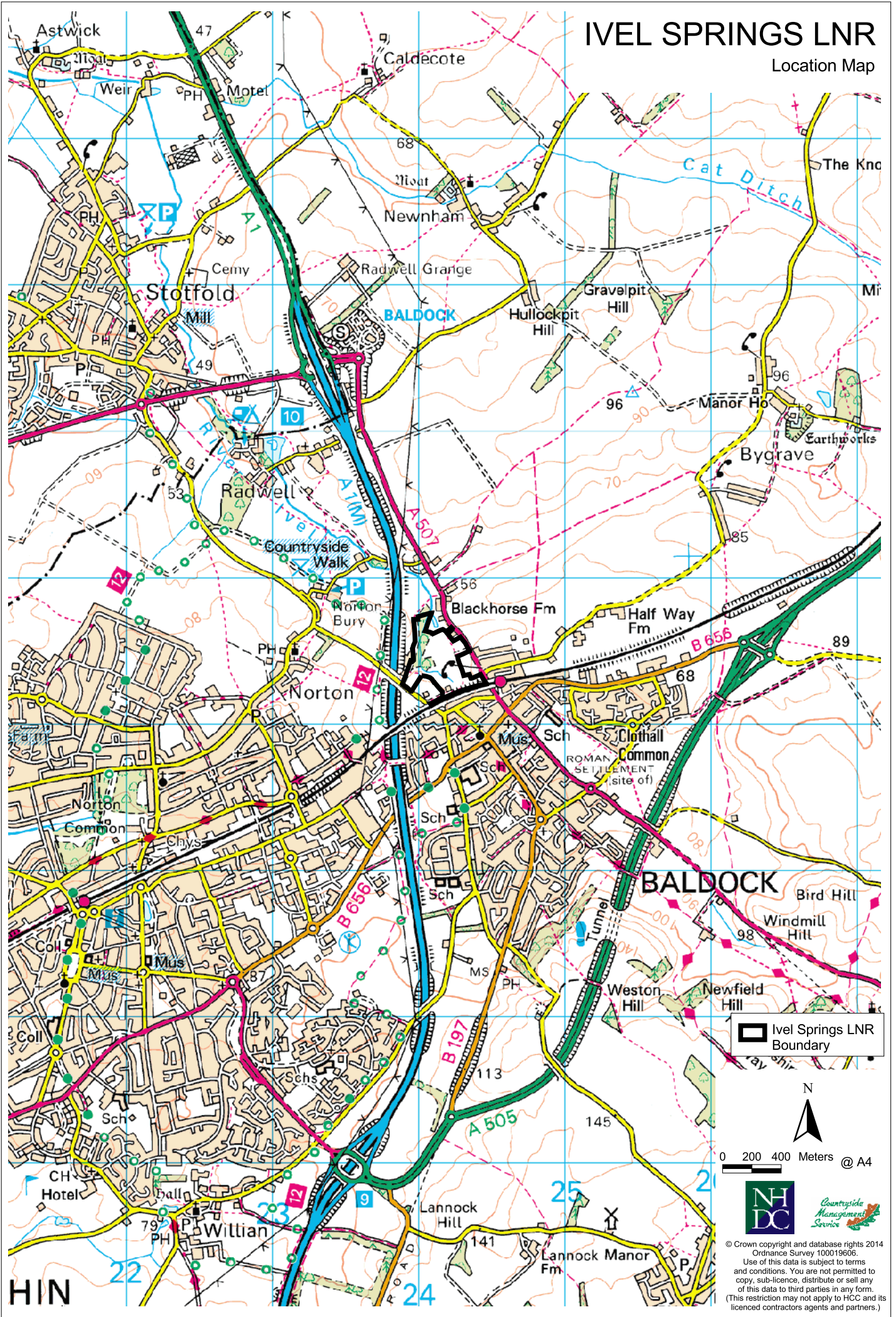
For Ivel Springs Local Nature Reserve to be a popular, well used green space in Baldock. Ivel Springs will provide a wealth of biodiversity, protected heritage and recreation for the local community to be involved with and enjoy.

This will be achieved by the following aims:

- To provide clear and welcoming access into and throughout the site
- To ensure that visitors to Ivel Springs LNR feel safe and able to enjoy the site at all times
- To ensure the standard of maintenance is maintained and relevant along the route
- To ensure ongoing costs are sustainable and secure external funding for capital works
- To protect and enhance the biodiversity and heritage that can be found on site
- To support and encourage community involvement at Ivel Springs LNR
- To promote awareness and interest in Ivel Springs LNR

IVEL SPRINGS LNR

Location Map



Ivel Springs LNR Boundary



0 200 400 Meters @ A4

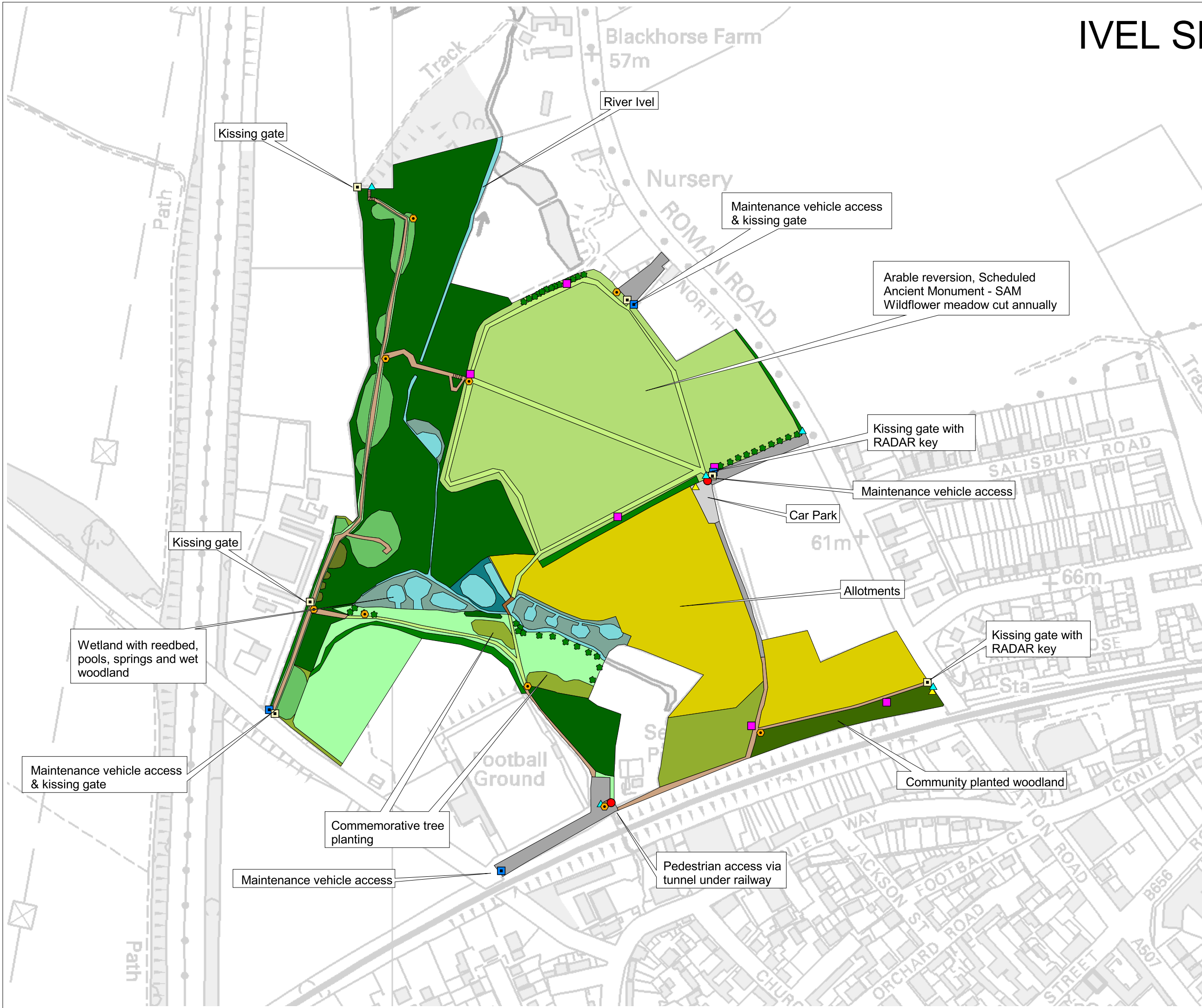


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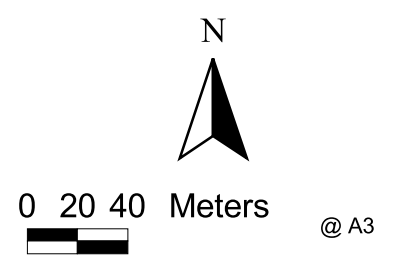
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IVEL SPRINGS LNR

Site Description



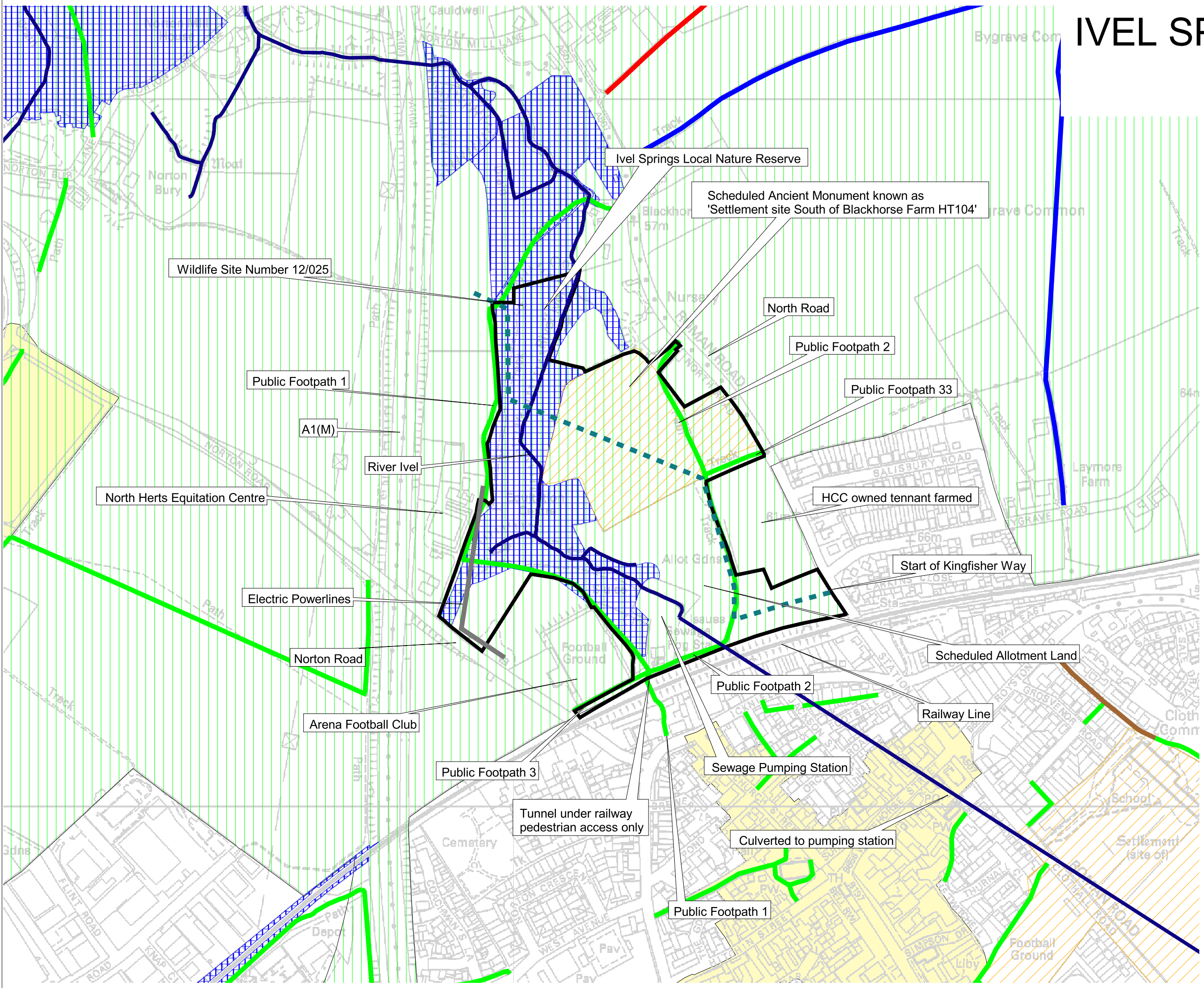
- Key**
- Bench
 - Dog bin
 - ▲ Entrance sign
 - ▲ Interpretation panel
 - Pedestrian gate
 - Vehicle gate
 - Waymarker post
- Trees
 - Glade
 - Building
 - Meadow
 - Water
 - Hard surfaced track
 - Hedgerow
 - Wetland vegetation
 - Allotments
 - Scrub
 - Woodland
 - Grassland
 - Hard surface
 - Permeable path
 - Wet woodland
 - Commemorative trees
 - Woodland planting
 - Grass path
 - Road
 - Car park
 - Boardwalk
 - Woodland glade



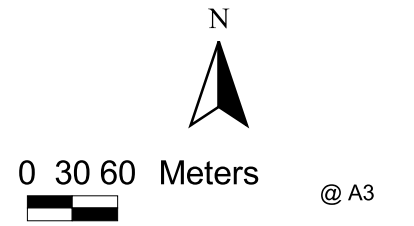
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IVEL SPRINGS LNR

Constraints



- Ivel Springs Local Nature Reserve Boundary
- Kingfisher Way
- Public Footpath
- Public Bridleway
- Byway Open to All Traffic
- Restricted Byway
- River Ivel
- Pylon
- Scheduled Ancient Monument
- Local Wildlife Sites
- Greenbelt
- Conservation Areas



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2.4 INTRODUCTION

Ivel Springs has a long history stretching back more than five thousand years and a rich diversity of wildlife. Chalk springs on the site give rise to the River Ivel which flows north into Bedfordshire to join the River Great Ouse. The site has been declared a Local Nature Reserve and over time has evolved and become home to a rich mixture of habitats including wildflower meadows, reedbeds and woodlands. There are now over 150 species of plants including black knapweed, cowslip and bird's foot trefoil. There are a variety of tree species including alder, apple, pear and a range of willow species. Wildlife that may be seen around the site includes kingfisher, common lizard, newt and possibly water vole.

2.5 LANDSCAPE, GEOGRAPHY & CONSERVATION DESIGNATION

2.5.1 LANDSCAPE & GEOGRAPHY

Ivel Springs falls into the north-eastern edge of North Herts Landscape Character Area 216 Ardsley – Great Wymondley. Key characteristic is an expansive large flat arable landscape to the north with gently undulating to more low lying areas including Ivel Springs. The River Ivel corridor has a mature woodland setting, with free draining loamy brown soils over Chalk.

The site is quite enclosed on all sides with the railway line to the south, Norton Road to the west and North Road to the east with residential properties and a football club surrounding the site. There are a number of horse grazed fields and equitation centre to the North West before you get to the A1 (M) and to the north east are arable fields. There is an arable field between the entrance track to North Road and the allotments this is owned by Hertfordshire County Council and managed by a tenant farmer.

2.5.2 CONSERVATION DESIGNATIONS

The conservation designations which are within the boundary of Ivel Springs have some constraining influence on how the site is managed. Details of the conservation designations are listed in the table below, and annotated on the Constraints Plan.

Scale	Designation	Detail
National	Scheduled Ancient Monument (SAM)	Ivel Springs is a Scheduled Ancient Monument (SAM) which means the site has national significance and is protected under statute
County	Local Wildlife Site	The woodland and wetland areas at Ivel Springs are designated as Local Wildlife Site, areas of at least district importance that are considered to be of 'critical natural capital'
District	Local Nature Reserve (LNR)	Ivel Springs has been declared a Local Nature Reserve (LNR) which means the site has national significance and is protected under statute
District	Metropolitan Green Belt	Ivel Springs falls within the Metropolitan Green Belt, designated under PPG2 (Green Belts), which restricts the growth of development in strategic rural areas on the edge of conurbations.

2.6 HISTORY & ARCHAEOLOGY

Throughout history, springs have been the focal point of some rather interesting activities, Ivel Springs is no exception. The focus of the springs has altered through time. Six thousand years ago, Neolithic farmers built a communal monument called a “cursus” a ceremonial walking route to the springs – thought to be used for funeral rituals. The cursus led to Ivel Springs from the west. Two thousand years later, springs became the focus of worship, more recently, the area became a burial ground.

In the second century BC, a line of pits were dug stretching for at least 1½ km from the springs, across Clothall Common and into the hills towards Wallington. Thought to be a symbolic boundary of some sort, it was one of the features of the growing town of Baldock, which flourished in the Roman period.

Over time, a farm developed here, this was later taken over by Anglo-Saxon settlers in the fifth century AD. Now protected as a Scheduled Ancient Monument, it sits beneath the large wildflower meadow close to the North Road car park.

Part of the site that has now developed into secondary woodland is on the former Baldock tip, regularly old bottles and rubbish surface in this area.

The whole site later became a public open space and Ivel Springs was declared a Local Nature Reserve in 2007. The area above the SAM was put into a ten year Countryside Stewardship Scheme (CSS) which enabled the area to be changed from agricultural land to sown species rich grassland. Once the CSS came to an end the area was entered into a 10 year Higher Level Stewardship Scheme to continue to protect the history of the site.

2.7 HABITATS & WILDLIFE

2.7.1 GRASSLAND

The meadow contains an array of flowers including Cowslip, Black Knapweed and Bird's-Foot Trefoil. Smaller glades of wildflowers have been encouraged along the path that runs north to south adjacent to the equitation centre. In the bench glade Henbane a rare plant has been recorded.

The area of grassland above the reedbed is becoming dominated with nettle, brambles, comfrey and horseradish.

2.7.2 TREES & WOODLAND

The secondary woodland has developed on top of the old Baldock tip. Species such as Willows, Sycamore, Oak and Silver Birch have soon grown up. Due to the dense nature of Sycamore these have to be managed to allow light to reach the river and ground flora. Other species include Alder, Apple, and Pear.

Willow trees in the wetland area, including Almond Willow with its serrated leaves and characteristic flaking bark which reveals a reddish brown under layer are “pollarded”, a traditional technique where trees are cut above head height to promote new growth. In days gone by this vigorous new growth would have been cut for use in basket weaving or more recently, for bindings on top of a laid hedge. This regular rotational cutting prolongs the tree's life and provides an additional wildlife habitat

Trees in the meadow along the entrance track were planted as 'trees for life' to remember still born babies. There are two other areas of commemorative tree planting in the grassland above the reedbed. The land between the allotments and the railway next to North Road is young woodland planted up with local species such as Oak and Ash in 2005 as part of a community day.

2.7.3 SCRUB

There are areas of blackthorn and elder scrub around the site that provide ideal habitat for breeding and over wintering birds. Scrub is starting to encroach into the meadow and the grassland areas by Baldock sewage pumping station.

2.7.4 HEDGEROWS

The hedgerow between the LNR and football club has been laid over several winters by CMS volunteers and local group Friends of Baldock Green Spaces (FoBGS). Two additional sections of hedge have been gapped up using native species; by the equitation centre and car park. The hedgerow by the equitation centre is getting quite spindly and loosing the dense nature of a managed hedgerow.

2.7.5 RIVERS & WETLANDS

There are two sources of water feeding the River Ivel at Ivel Springs LNR, as the name suggests clean water coming from the chalk springs and water that arrives after heavy rain from road runoff from Baldock, bringing with it pollutants and silt.

The River Ivel flows north from its source at the springs into Bedfordshire where it joins the River Great Ouse at Tempsford. Together they travel on through Cambridgeshire and Norfolk before finally reaching the North Sea at The Wash near Kings Lynn.

Chalk Rivers are extremely rare and included in the Hertfordshire Biodiversity Action Plan. The River Ivel and its wetlands are important habitats for a wide range of species.

2.7.6 BIRDS

The varied habitats around Ivel Springs support a variety of bird life, from native species resident all year long to seasonal summer visitors. The reedbed area provides home for breeding Reed and Sedge Warblers. After habitat management works around the wetlands Snipe take full advantage of the muddy margins, probing the mud with their long bill: if startled you might hear their distinctive call or see them zig-zagging as they fly away.

Other species that may be seen include Skylark singing over the meadow and nearby fields and Redwing and Fieldfare visiting in the autumn.

2.7.7 MAMMALS

Fox, Badger, Bats, Muntjac Deer and small mammals have all been recorded at Ivel Springs. Rabbits are abundant on site and in recent years had become a problem for the allotments; this has been addressed with the installation of rabbit-proof fencing.

Water Voles were recorded at Ivel Springs back in the early 1990's, but there have been no records more recently, due mainly to predation by Mink. Habitats have

improved on site and are more suitable for Water Vole to recolonise if they return to the river valley.

2.7.8 REPTILES & AMPHIBIANS

Reptiles and amphibians that have been recorded on or near to Ivel Springs include Grass Snake, Slow-worm, Frog, Toad, Newts and Common Lizard. The variety of habitats from open water pools to habitat piles, provide the ideal home for these creatures.

2.7.9 INSECTS

The variety of habitats found on site supports a wide range of butterflies including Speckled Wood, Comma and Brimstone. Dragonflies and Damselflies can be seen hawking the rides and reedbed areas, using the open water pools for egg laying.

Other slightly unusual insects that have been found on site include Bloody Nosed Beetle.

2.7.10 ALLOTMENTS

North Road Allotment Gardens are surrounded by Ivel Springs LNR. The allotments are currently managed by NHDC and Baldock Allotment and Leisure Gardeners' Association (BALGA); the association are working towards becoming self managing in the near future.

Most of the allotments are now cultivated and apart from a section by the car park has been re-fenced to prevent rabbit invasion and increase security. The section of statutory allotment land leading up to North Road is currently uncultivated and ready to be fenced and turned back into active allotment plots when the need arises.

2.8 ACCESS, INFRASTRUCTURE & FACILITIES

2.8.1 ACCESS & CIRCULATION

Existing provisions have been updated and opportunities for those less able maximised. Medium and large mobility kissing gates allow access onto the LNR from all sides. Paths around the site have been surfaced to improve access for all, with the exception of the meadow which has grass paths. Entrance signs, interpretation panels, notice boards and benches, all help to aid the enjoyment of visitors.

Several Rights of Way cross the site and bus stops, the station and Baldock high street are only a few minutes walk away.

Signage

There are wooden routed entrance signs at all entrances to Ivel Springs. Rights of Way directional signage includes 'Ivel Springs Local Nature Reserve' as a destination. There is a brown and white tourist road sign on North Road directing visitors to the car park.

Interpretation

Two interpretation panels including a map of the site and historical information with adjoining lockable magnetic notice boards are located on site by key entrances. One is in the car park, the other by the kissing gate on North Road. The lockable notice

boards are kept up to date by the Friends group, advertising their task days and other local NHDC/CMS events.

A dedicated wetland interpretation panel explaining where the springs flow to is located in the bench glade overlooking the reedbed.

Leaflet

There is an Ivel Springs leaflet with site map and information about the Friends of Baldock Green Spaces. The leaflet is available to download from the:

- NHDC website - http://www.north-herts.gov.uk/index/leisure_and_culture/parks_countryside_and_open_space/nature_reserves/ivel_springs-2.htm
- CMS website - <http://www.hertslink.org/cms/getactive/placestovisit/ivelsprings/>

Other Routes

The Kingfisher Way is a 21 mile walking route following the River Ivel from its source at Ivel Springs along the Ivel Valley to Roxton Lock, Bedfordshire. The start of the first section of the Kingfisher Way 6 miles from Baldock through to Arlesey is marked with an obelisk up by North Road depicting the route. There is a small interpretation panel in the meadow with more information about the route, for more information visit http://www.letsgo.org.uk/walk/KingfisherWay_2.aspx

2.8.2 SITE ENTRANCES

Pedestrian Entrances

There are several pedestrian access points onto Ivel Springs LNR. Two have large mobility kissing gates with RADAR keys all of the others are medium sized kissing gates.

These are:

- 3 from North Road
 - One via a kissing gate almost opposite Bygrave Road (RADAR key)
 - One via the track to the car park and kissing gate into meadow (RADAR key)
 - One via a kissing gate at the bottom of the cul-de-sac between the houses
- 2 from Norton Road
 - One down the track by the side of the football club
 - One via a kissing gate near to the equitation centre
- Access via a kissing gate from the equitation centre from Public Footpath 1
- Access via a flight of steps at the northern end of site from Public Footpath 1
- Through the railway tunnel from Icknield Way

Car Park and Vehicular Entrances

The surfaced entrance track and small car park off North Road provides the main access for visitors by vehicle to both Ivel Springs LNR and North Road Allotment Gardens. There is a car park at The Arena Football Club on Norton Road which on occasions can be used for larger events – confirmation is required from the football club before using.

Authorised vehicle access onto Ivel Springs LNR is at the following points:

- Locked field gate into the meadow from the car park off North Road
- Locked field gate into the meadow from the small cul-de-sac off North Road

- Access track between the football club and the railway leading to an area of hard standing and onto site – locked metal barrier at the top of the track
- Locked field gate by the side of the track to the equitation centre

2.8.3 PARK FURNITURE & STRUCTURES

Benches

There are several benches around the LNR to allow for people to rest and enjoy the site.

Dog waste bins & fly tipping

There are two dog waste bins on site one in North Road car park and one by the sewage pumping station. They are emptied as required by NHDC grounds maintenance contractors, who are also required to remove litter and fly tipping from the site.

Boardwalk

There is a section of boardwalk which crosses the wetland area. At the meadow end is a ramp so wheelchair users and people with pushchairs can get onto the boardwalk and see the wetland area. The boardwalk area can not be accessed by this method from the other side due to a set of steps up the steep bank.

Steps

As mentioned above there are a set of infilled steps leading from the football club side of the site down onto the wetland boardwalk. There are a set of ladder steps – made from wood with no infill at the northern end of the site leading onto Public Footpath 1 and the Kingfisher Way. There are a small set of infilled steps and accompanying ramp leading from the meadow into the woodland.

Culvert

There is a large culvert in the woodland just up from the meadow which the River Ivel flows through. A large surfaced area above the culvert enables people to view the river and its wildlife safely.

2.8.4 ATTRACTIONS

Ivel Springs LNR is a short walk away from the historic market town of Baldock. With its wide array of shops, public houses, restaurants and market day held every Wednesday with a farmers market every 2nd Saturday of the month selling local produce, Baldock has a lot to offer visitors. Baldock railway station and bus stops are all a short walk away from the site. There are lots of leisure and amenity activities near by with The Arena Football Club and North Herts Equitation Centre adjacent to the site.

2.9 MANAGEMENT, COMMUNITY INVOLVEMENT & EVENTS

2.9.1 MANAGEMENT

Responsibility for management of the Ivel Springs Local Nature Reserve lies with its owners NHDC. The maintenance works are currently carried out by John O'Connor's (JoC) ground maintenance contractors.

Five year Greenspace Action Plans (GAPs) for the site are produced by the Countryside Management Service in consultation with the relevant partners and stakeholders.

2.9.2 COMMUNITY INVOLVEMENT & EVENTS

The dedicated friends group 'Friends of Baldock Green Spaces' (FoBGS) established in 2004 are going from strength to strength, they have become more independent, while still being fully supported by NHDC and CMS. Working with local school and beaver/scout groups the friends have helped to teach the younger generation about their local wildlife. They have recruited more members and are constantly thinking of ways to enhance the LNR.

CMS have organised various events and guided walks on and around the site over the years. This is an important ongoing activity to keep interest in the site and work that the friends group are involved in.

3 ANALYSIS AND EVALUATION

Incorporated into the analysis and evaluation section below are responses to the comments received from the consultations – see 2.9.1.

3.1 LANDSCAPE & GEOGRAPHY

From the character area assessment Ivel Springs has free draining loamy brown soils over Chalk and topography of relatively low lying basin – flat to gently undulating. The River Ivel has some ecologically interesting stretches of marginal and bankside vegetation, with full herb fen and willow carr.

3.2 HISTORY & ARCHAEOLOGY

Being underground the Scheduled Ancient Monument (known as 'Settlement site South of Blackhorse Farm HT104') is protected from damage by the meadow above it. An application for consent to undertake any digging works on the meadow must be sent to English Heritage, if the site is to be grazed, the fencing and stock handling area on the meadow will need consent.

3.3 HABITAT & WILDLIFE

3.3.1 GRASSLAND

Meadow

The species rich Local Wildlife Site meadow above the Scheduled Ancient Monument (SAM) provides a great nectar source for invertebrates. Annual mechanical hay cutting of the meadow at the end of the summer and removing the arisings is working well to maintain the wildflowers but it does give a uniformed sward.

Introducing grazing to the site would increase the biodiversity of the meadow by changing the structure of the grassland, creating bare ground and tussocks of vegetation which is favoured by a wide range of species. This change to grazing would increase the number of small mammals and invertebrates using the site, ant hills will start to develop and the dung from the cattle will attract more insects which in turn will attract more bats. Flowers will continue to flourish through out the year. There would be a smaller impact across the site using grazing as it does not require heavy machinery to remove all the vegetation in one go giving the SAM more protection.

Grassland above reedbed

Nettles and brambles in the grassland on the bank above the reedbed and down to the sewage pumping station are becoming dominant. Cutting the area three times a year in April, June and September will reduce the dominance and allow grasses to take hold. Maintain an undisturbed buffer strip between the grassland and wetland. Comfrey and horseradish are spreading along the reedbed bank these will be incorporated into a regime of spraying until they are eradicated so that they do not dominate the grassland.

Glades

The glades along the track which runs parallel to the equitation centre are establishing well and the annual cutting regime will maintain the species diversity. A detailed map will be provided to the ground maintenance contractor to help with the management of this area.

There is a small patch of Japanese Knotweed on the bank of one of the glades by the equitation centre, this is being controlled. The control of this species will be ongoing and nearby areas will be monitored to check for any potential spread.

Grassland area by the football club

There is a large area of grassland between the football club and equitation centre, which is owned by NHDC. It would be beneficial to incorporate this area into the LNR as an additional habitat and resource. The area is a mix of a more open grassy sward towards the road with the rest being mainly dominated by nettles and other tall herbs. The grassland needs to be explored to see what it has to offer with the possibility of creating access into the area via a mown grass path, if the area is going to be cut annually by machine access provision will need to be considered.

Ragwort

Ragwort grows at Ivel Springs in various locations, there has been a large quantity growing in the grassland near to the sewage pumping station, in the past it has been hand pulled by volunteers, this was halted as there was no way to remove it from site. Ragwort is a really valuable plant for a wide range of insects but can be potentially harmful to cattle and horses.

The meadow and surrounding area will need to be monitored closely for ragwort if grazing with cattle commences, any plants found in the grazing area will need to be removed by hand pulling and stacked outside the compartment, if they can not be removed appropriately from site; in the past a number of plants were removed from the east of the meadow by North Road. Other patches of ragwort need to be monitored to reduce spread into the meadow and removal from these other areas should be considered.

A universal minimum standard of maintenance should be maintained along the paths. This will include cutting 1m margins along path edges, keeping a useable width of the path and entrance/egress points free from encroaching vegetation and cutting round benches and signage.

3.3.2 TREES, WOODLAND AND SCRUB

Sycamores have a dense nature especially when mature, in the previous plan some were removed to allow more light to reach the river and ground flora. There are other areas in the woodland that are becoming increasingly shaded which would benefit from the odd Sycamore being removed.

The willow trees in the wetland area that have previously been pollarded will need to be repollarded again on rotation during the life of this plan. Due to the size of the trees this needs to be done by contractors, the material must be removed from site, if left in the wetland area this will cause the area to dry out; it can root and regrow or may block the watercourses. Smaller coppice and pollarded trees by the boardwalk area can be dealt with by the volunteers, this material can then be used in hedge laying as binders or stacked as habitat piles well off the wetland area as willow will root and regrow.

Scrub is starting to encroach from the woodlands into the meadow and grassland area by the sewage pumping station and path edges; this must be managed by removal so that the grasslands are not lost. Scrub encroaching into the watercourse must be cleared on a rotation so that the channel does not become blocked; most of the material is of a small scale that volunteers would be able to tackle it.

Tree Surveys

The safety of users is of primary importance to NHDC. Formal tree safety surveys are undertaken every three years; any works will be prioritised according to a Risk Assessment taking into account the health and safety aspects with regards to the public.

3.3.3 HEDGEROWS

The hedgerow by the football club has established well since being laid during the previous plan period, the hedge must continue to be managed by reducing its height every few years this can be done by volunteers. Old rabbit fencing should be removed from around the base of the hedgerow when carrying out the management works as the trees are now of a size to not be damaged by rabbit browsing.

In a couple of years the small section of hedge in the meadow next to the car park should be laid to improve the views across the meadow and make the entrance look more attractive.

The hedgerow by the equitation centre has lost its dense nature and become spindly and gappy, it is also starting to shade the path. It should be laid and additional native species planted to fill the gaps and make it into more of a boundary feature. The old fencing may need to be removed to be able to do this, new fencing might be required. More light will be able to reach the path, improving conditions for the ground flora to thrive. The section of hedge from the new planting to just south of the kissing gate is ready for laying; the trees are of a size suitable for volunteers to work with. For a time this will open up the views into the equitation centre but as the hedge re grows it will soon be blocked, it will be much easier to continue to manage once it is a hedge.

Hedge laying uses locally sourced material, stakes are usually made of hazel, although ash and sweet chestnut can be used if available, willow should not be used as it will regrow; coppice willow or hazel can be used for the bindings. If any planting is undertaken it must be done using the appropriate native species such as Field Maple, Hawthorn, Hazel and Spindle, spiral guards and canes need to be used for protection against rabbits when they are first planted.

3.3.4 RIVERS AND WETLANDS

Being in the South East of England and holding the springs for the River Ivel, the site is susceptible to drought conditions. During the summer months the wetlands often dry up as the groundwater recedes, causing the springs to stop running. Each year the winter months see the return of heavy rains to recharge the groundwater causing the water level to rise and the springs to flow once again, returning the mosaic of wetland features. The recent wet winter has recharged the system for a time, but the habitats and species that can be found here are always susceptible to changes in conditions.

Every few years volunteers should check the river channel for encroaching trees and scrub and clear them from the watercourse, stacking the material away from the bank edge in habitat piles. The channel by the culvert needs the reed removed periodically as the channel gets choked with vegetation, this may need to be done by contractors rather than volunteers due to working in the river and the arisings can be stacked on the bank edges to create habitat piles.

Deeper pools have been created in the wetland area by the sewage pumping station, these again are seasonally wet which can be for long periods of time. Being able to maintain the water coming through from the sewage pumping station for longer on site allows it a chance to clean and deposit some of the silt before it joins the River Ivel. There has been no management of the vegetation in between the pools to date and this will scrub over in time. This area should be managed on a rotation and a third cut by volunteers every year, this will have to be done by hand (possibly brushcutter), the material will have to be raked up and stacked as habitat piles on the allotment side of the bank (not against the fence).

During the previous plan period attempts were made to contact Anglian Water who own and manage the sewage pumping station to work together with them to improve their area, nothing came of it. Communications could be re-established to see if they are now interested in getting involved.

Rotational cutting of channels through the reeds should continue every few years to maintain the structure of the reeds and stop the area from drying out and turning into woodland. Up to three channels should be cut at angles from the bench, so that you can view down them, the channels will be cut using a brushcutter and the arisings raked up by volunteers and habitat piles created on the bank beneath the bench.

Towards the end of the plan the reedbed area should be reassessed with the possibility of creating additional pools at the western end of the reedbed (where the rides are being cut), if it seems to be drying out.

A wildlife viewing screen could be created by the edge of reedbed pools so that people can get up close to wildlife without disturbing them. Volunteers can make this using material from the willow pollarding, stakes from species other than willow will need to be used so that they do not sprout then the willow can be woven in between the stakes to create a screen, leaving holes for viewing.

There are a number of invasive plants at Ivel Springs; Himalayan Balsam can be found in the woods and river, just north of the culvert over the river, this is being hand pulled by the friends group and working with the neighbouring landowner to control balsam on their land as well.

Giant Hogweed can be found around the reedbed area with between 10-15 plants at present. This is on an annual rolling programme of treatment until eradicated – minimum 15 years. The control of this species will be ongoing and monitoring of other nearby areas of the site will continue to check that nothing has spread.

3.3.5 WILDLIFE

Reptiles and amphibians

Reptiles and amphibians have been recorded on the site in the past, it would be useful to get some up to date records by carrying out a survey. This can be done by laying down reptile mats these mats act as somewhere for the species to go in early spring and autumn to warm up. The felts could be located in some of the glades, by the allotments and in the new grassland area; these are then checked every couple of weeks by carefully lifting up the felts and the species present recorded. This is something that the friends group could get involved in. If it is found that there are a good numbers of species present a 'Walks and More' event could be held on the site to get local people more involved.

3.4 ACCESS, INFRASTRUCTURE & FACILITIES

Access

The access around the site is good and was improved during the last plan period. At most entrance points there are kissing gates allowing either wheelchair or mobility vehicle access. All entrance points are inspected yearly and any problems dealt with immediately. There are several benches around the LNR for use by visitors to relax and enjoy the site; any replacement bench must be made of oak with back rests.

The paths around the site were all resurfaced during the last plan period. All infilled steps on site were topped up with material by the friends in 2014, this should not need to be done again during the length of this plan dependant on usage; the steps will be monitored annually.

There is access from the houses on Ickniel Way onto Ivel Springs LNR by using the railway tunnel. The paths on either side of the tunnel have been resurfaced, yet the actual tunnel is dark and shady making this route seldom used. A few simple improvements could be made to improve the tunnel and increase the access to the site via this route avoiding people having to walk up an unpaved section of Norton Road and into the site past the football club. With new housing being built on the opposite side of the railway line this would be a good opportunity to improve the access through the tunnel. Network Rail the owners of the tunnel will need to be contacted and agree to any works before they commence.

The car park off North Road which serves the LNR and the allotments can only accommodate a small number of vehicles. If usage increases alternative parking solutions may need to be found. Current parking arrangements will need to be monitored and kept under review.

Signage and Interpretation

The signage on site and on the local Rights of Way network was updated during the last plan. The two map based interpretation panels are slightly outdated and could do with being updated, so that people can fully enjoy what Ivel Springs has to offer. Some of the entrance signs were new during the last plan others have been around for a bit longer, any replacement signs will be in the same style to keep up consistency.

The Kingfisher Way panel at the entrance to the meadow is starting to look a little bit dated. It would be worth trying to find a contact for the Kingfisher Way to see about a replacement panel and to have them maintain/move the obelisk up by the entrance from North Road.

The site leaflet has recently undergone an update and reprint 2013/14. When the next reprint is required it would be worth checking that the mapping and text is still up to date and if not amend.

Other

The dog waste bins around the site are emptied once a week as part of the Grounds Maintenance contract.

Part of the LNR was formerly Baldock landfill site and was filled with a variety of items. Still to this day in the secondary woodland old bottles, rubbish, glass and other debris resurface and is dealt with by the Grounds Maintenance team.

Ivel Springs is bordered on the western side by North Herts Equitation Centre. On occasions rubbish from the centre has been seen to blow onto the site causing a hazard to wildlife. Burning of waste materials and resultant noxious smoke has also been reported by users. The equitation centre needs to be contacted and made aware of this issue.

Ivel Springs is situated in a prime location near the outskirts of Baldock for additional housing. Any new builds in this area have the advantage of being able to use Ivel Springs Local Nature Reserve as a place to come to for recreation and leisure pursuits. New developments may open up external funding opportunities that could benefit the site. Ensuring officers from NHDC and FoBGS monitor any new proposed developments and raise any concerns when planning applications are submitted, while working with the planners to ensure that any impacts are minimised, will help to protect the LNR for future generations to enjoy.

3.4 MANAGEMENT, COMMUNITY INVOLVEMENT & EVENTS

Local Volunteers

Friends of Baldock Green Spaces (FoBGS) play an active role in managing the site. With guidance and support from NHDC and CMS, they run regular monthly (except August) work parties undertaking practical conservation tasks at Ivel Springs or Weston Hills another nearby NHDC LNR in Baldock, as per the GAP. With more involvement in planning their monthly tasks, they will begin to take more ownership in the site. They have set up their own website and Facebook page which is updated regularly. Once a year they hold their AGM at Ivel Springs which is well attended and being held on site is a great way to generate more interest. The group advertise their tasks on site notice boards and in local publications.

Consultations & Public Feedback

Stakeholders and the public have been consulted at each stage of the Ivel Springs LNR GAP, from Briefing Document to Draft GAP. All responses have been incorporated into the document.

If grazing is thought to be a viable option to manage the meadow a consultation will be undertaken with local residents and users of the site, so that grazing can fit around other site uses, all responses will be fully considered before any decisions are made. English Heritage will need to be consulted to get permission to fence the site due to its Scheduled Ancient Monument status; as will Natural England to

confirm that the grazing does not contravene the current Higher Level Stewardship Scheme.

Events

CMS have organised various events and guided walks on and around the site over the years. This is an important ongoing activity to keep interest in the site and the work that the friends group are involved in. Friends tasks could be promoted more widely through CMS 'Walks and More' website which could attract more interest.

Education and Promotion

Encouraging the FoBGS to continue to involve local schools and beaver/scout groups is recommended so that the younger generation get to appreciate nature at an early age. External groups must be covered by their own insurance and have appropriate number of teachers/leaders accompany the groups to be able to work on site. FoBGS must provide a risk assessment of the activity to the visiting group and the external groups must provide a risk assessment for the visit and proof of insurance to NHDC before the event.

Updating the interpretation panels and reprinting the leaflet and distributing it locally will help promote the site and FoBGS.

4 AIMS AND OBJECTIVES

A A WELCOMING PLACE

To provide clear and welcoming access into and throughout the site

- A1 Improving access to, from and around the site where possible – linking to residential areas, local greenspaces, businesses and schools, public transport, shops and local amenities
- A2 Update when appropriate signage to, from and around the site while making it more attractive

B HEALTHY, SAFE & SECURE

To ensure that visitors to Ivel Springs LNR feel safe and able to enjoy the site at all times

- B1 Carrying out reactive tree works to address safety issues
- B2 Proactive response to the misuse of the site

C CLEAN & WELL MAINTAINED

To ensure the standard of maintenance is maintained and relevant along the route

- C1 Managing and maintaining the paths and signage
- C2 Removing fly tip, litter picking, empty dog bins and carrying out small scale vegetation management

D SUSTAINABILITY

To ensure ongoing costs are sustainable and secure external funding for capital works

D1 Ensuring ongoing maintenance costs are financially sustainable

D2 Securing external funding to ensure the viability of capital works

E CONSERVATION & HERITAGE

To protect and enhance the biodiversity and heritage that can be found on site

E1 Introducing grazing onto the meadow, to make management of this area more sustainable, beneficial to wildlife while conserving the historical features on site

E2 Maintaining and enhancing the wetland area where possible

E3 Maintaining and enhancing all habitats and species on site

E4 Looking into opportunities to expand the LNR where possible

E5 Working with local land owners to protect the biodiversity of the LNR

E6 Continuing to carry out invasive species eradication programmes

F COMMUNITY INVOLVEMENT

To support and encourage community involvement at Ivel Springs LNR

F1 Supporting volunteer activity at Ivel Springs LNR and to ensure all involved operate towards achievement of the GAP

F2 Continue to support the local Friends group and encourage the local community to become involved in the management of Ivel Springs LNR in a structured and supported way

G MARKETING

To promote awareness and interest in Ivel Springs LNR

G1 Improving the visitor experience and enhancing opportunities for informing and educating by installing new site interpretation panels and wildlife viewing screen

G2 Promotion of volunteer and community events at Ivel Springs LNR

G3 Updating the Ivel Springs LNR site leaflet

5.0 FIVE YEAR ACTION PLAN

5.1 ANNUAL ITEMS

Action	Obj no.	When	Responsibility	Funding	Estimated Cost (VAT)	Spec ref.	Status Completed/ Comments
Cut paths and path edges, edge of track to car park, track to sewage pumping station, round entrance points & signs	C1	Apr-Oct	NHDC	NHDC GM Budget	GM Contract		
Cut glades and viewpoints	C1	Apr, Jun & Sep	NHDC	NHDC GM Budget	GM Contract		
Cut grassland above reedbed and around trees	C1	Apr, Jun & Sep	NHDC	NHDC GM Budget	GM Contract		
Cut and collect the meadow - this may not be required if grazing commences	C1	Sep	NHDC	NHDC GM Budget	GM Contract		
Cut back vegetation around wetland boardwalk, meadow steps/ramps and steps at northern end of site	C1	When required	CMS	Vols			
Invasive species control – Giant Hogweed, Japanese Knotweed	E6	Jun-Sep	NHDC	NHDC GM Budget	See each year		
Remove Himalayan Balsam from the river north of the culvert	E6	Jun/Jul	CMS	Vols			
Treat Comfrey & horseradish on the bank above the reedbed until eradicated	E6	Mar-Jul	NHDC	NHDC GM Budget	£1,520		
Cut and remove vegetation around wetland pools, 1/3 to be cut each year	E2	Sep-Feb	CMS	Vols			
Prepare Green Flag Application for January deadline		Dec	NHDC/CMS				
Remove rubbish and fly tip	C2	When required	NHDC	NHDC GM Budget	GM Contract		
Remove ragwort from the meadow, if grazing commences and monitor/remove from other areas if required	E6	When required	CMS	Vols			
Tree risk management inspections	B1	Every 3 years	NHDC	NHDC Tree Budget	GM Contract		
Health & safety inspections and undertaking of works	B1	When required	NHDC	NHDC Tree Budget	GM Contract		

Action	Obj no.	When	Responsibility	Funding	Estimated Cost (VAT)	Spec ref.	Status Completed/ Comments
Update & clean sign & notice boards	A2	When required	CMS	Vols			
Empty dog waste bins minimum frequency of once a week	C2	All year	NHDC	NHDC GM Budget	GM Contract		
Develop and promote Friends of Baldock Green Spaces	G2, F1, F2	All year	NHDC/CMS	NHDC Budget	GM Contract		
Promote volunteer and community events at Ivel Springs	G2	All year	NHDC/CMS	NHDC Budget	GM Contract		
Ensuring ongoing maintenance costs are financially sustainable	D1	Ongoing	NHDC				
Securing external funding to ensure the viability of capital works	D2	Ongoing	NHDC/CMS				
Monitor car park usage and review	E5	Ongoing	NHDC				
Raise concerns to planning applications if they affect Ivel Springs LNR	E5	When required	NHDC/FoBGS				

Abbreviations:

CMS – Countryside Management Service

GM – Grounds Maintenance

NHDC – North Herts District Council

Vols - Volunteers

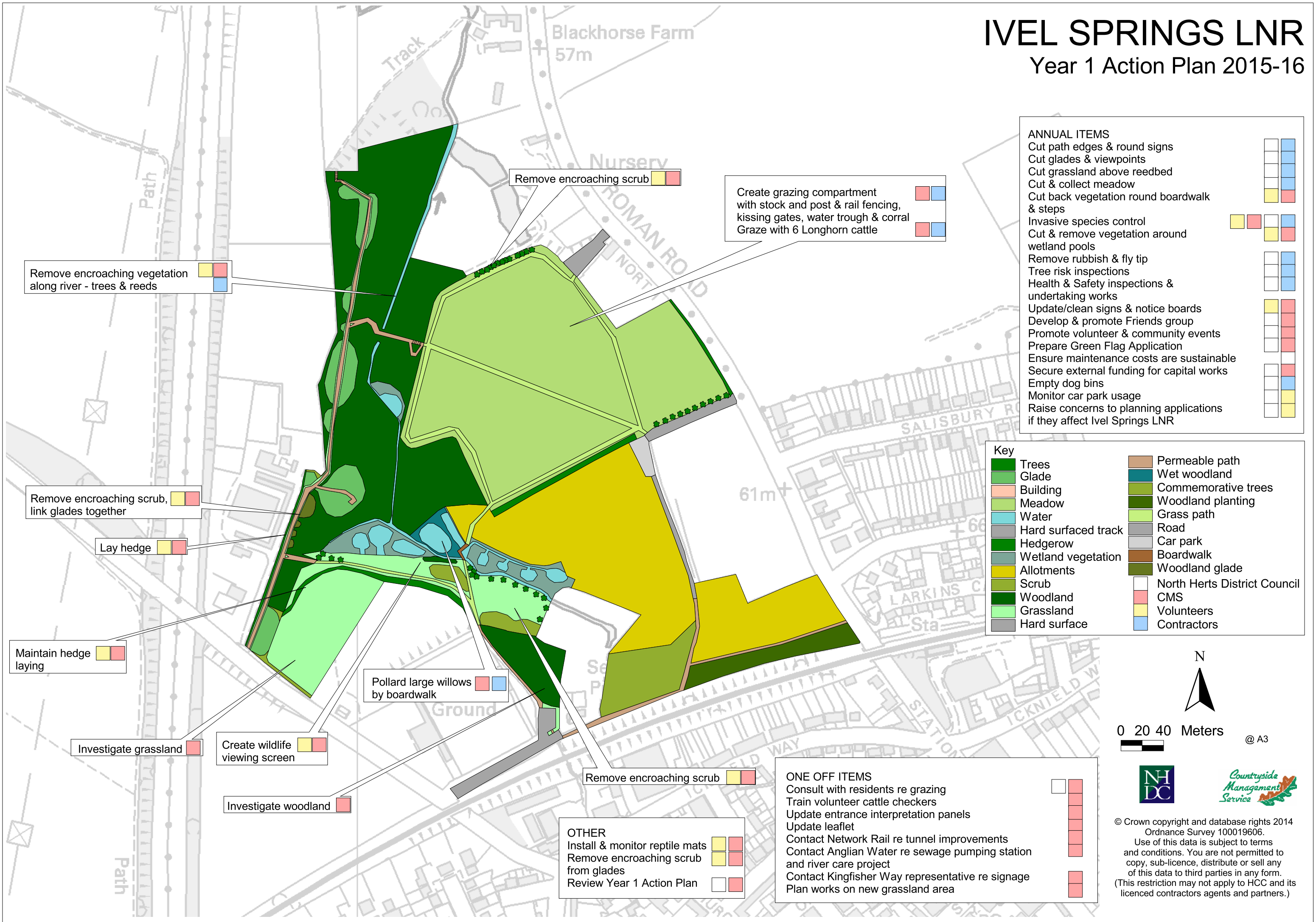
5.2 YEAR 1 ACTION PLAN 2015-16

Action	Obj no.	When	Responsibility	Funding	Estimated Cost (VAT)	Spec ref.	Status Completed/ Comments
Consultation with residents re grazing on the site	E1	Apr	NHDC/CMS	NHDC Budget			
Reptile mats – install April, monitor ongoing	E3	Apr	CMS	Vols & mats?			
Investigate the area of scrub/woodland behind the football club with a view to create a scheme to enhance the area	E3	Apr-May	CMS				
Investigate new area of grassland – map, survey etc	E4	Apr-May	CMS				
Create grazing compartment on meadow, with associated stock & post and rail fencing, kissing gates, water tough and corral	E1	May	CMS	NHDC Budget/ External	£10,586		
Invasive species control – Giant Hogweed & Japanese Knotweed	E6	Jun-Sep	NHDC	NHDC GM Budget	£1740		
Cattle grazing – 9 Longhorn cattle for 12 weeks (£352.40 delivery/collection & £715.20 husbandry 2 checks per week)	E1	Jul-Sep	CMS	NHDC Budget/ External	£1067.20		
Train volunteer cattle checkers	F1	Jul	CMS	NHDC Budget?			
Update entrance interpretation panels x 2	G1	Aug	CMS	NHDC GM Budget	tbc		
Update leaflet – if grazing goes ahead	G1	Aug	CMS	NHDC GM Budget	tbc		
Pollard large willow pollards by boardwalk - contractor	E2	Sep-Feb	CMS	NHDC GM Budget	tbc		
Remove encroaching scrub from grassland areas	E3	Sep-Feb	CMS	Vols			
Wildlife viewing screen by reedbed area	G1	Sep -Feb	CMS	Vols			
Maintain hedge laying - main hedge	E3	Sep-Feb	CMS	Vols			
New hedge laying – by equitation centre	E3	Sep-Feb	CMS	Vols	May need to buy stakes		

Action	Obj no.	When	Responsibility	Funding	Estimated Cost (VAT)	Spec ref.	Status Completed/ Comments
Remove encroaching vegetation along river – trees & reeds	E3	Sep-Feb	CMS	Vols – reeds maybe contractor	tbc		
Contact Network Rail re tunnel improvements	E5	Ongoing	CMS				
Contact Anglian Water re sewage pumping station area and river care project	E5	Ongoing	CMS				
Contact Kingfisher Way representative re signage	E5	Ongoing	CMS				
Plan works on new grassland area after investigation if required	E4	Ongoing	CMS				
Review Year 1 Action Plan		Mar 16	NHDC/CMS				

IVEL SPRINGS LNR

Year 1 Action Plan 2015-16

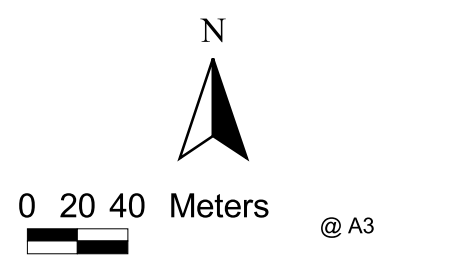


ANNUAL ITEMS

Cut path edges & round signs					
Cut glades & viewpoints					
Cut grassland above reedbed					
Cut & collect meadow					
Cut back vegetation round boardwalk & steps					
Invasive species control					
Cut & remove vegetation around wetland pools					
Remove rubbish & fly tip					
Tree risk inspections					
Health & Safety inspections & undertaking works					
Update/clean signs & notice boards					
Develop & promote Friends group					
Promote volunteer & community events					
Prepare Green Flag Application					
Ensure maintenance costs are sustainable					
Secure external funding for capital works					
Empty dog bins					
Monitor car park usage					
Raise concerns to planning applications if they affect Ivel Springs LNR					

Key

Trees	Permeable path
Glade	Wet woodland
Building	Commemorative trees
Meadow	Woodland planting
Water	Grass path
Hard surfaced track	Road
Hedgerow	Car park
Wetland vegetation	Boardwalk
Allotments	Woodland glade
Scrub	North Herts District Council
Woodland	CMS
Grassland	Volunteers
Hard surface	Contractors



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Remove encroaching vegetation along river - trees & reeds

Remove encroaching scrub, link glades together

Lay hedge

Maintain hedge laying

Investigate grassland

Create wildlife viewing screen

Investigate woodland

Pollard large willows by boardwalk

Remove encroaching scrub

Create grazing compartment with stock and post & rail fencing, kissing gates, water trough & corral
 Graze with 6 Longhorn cattle

OTHER
 Install & monitor reptile mats
 Remove encroaching scrub from glades
 Review Year 1 Action Plan

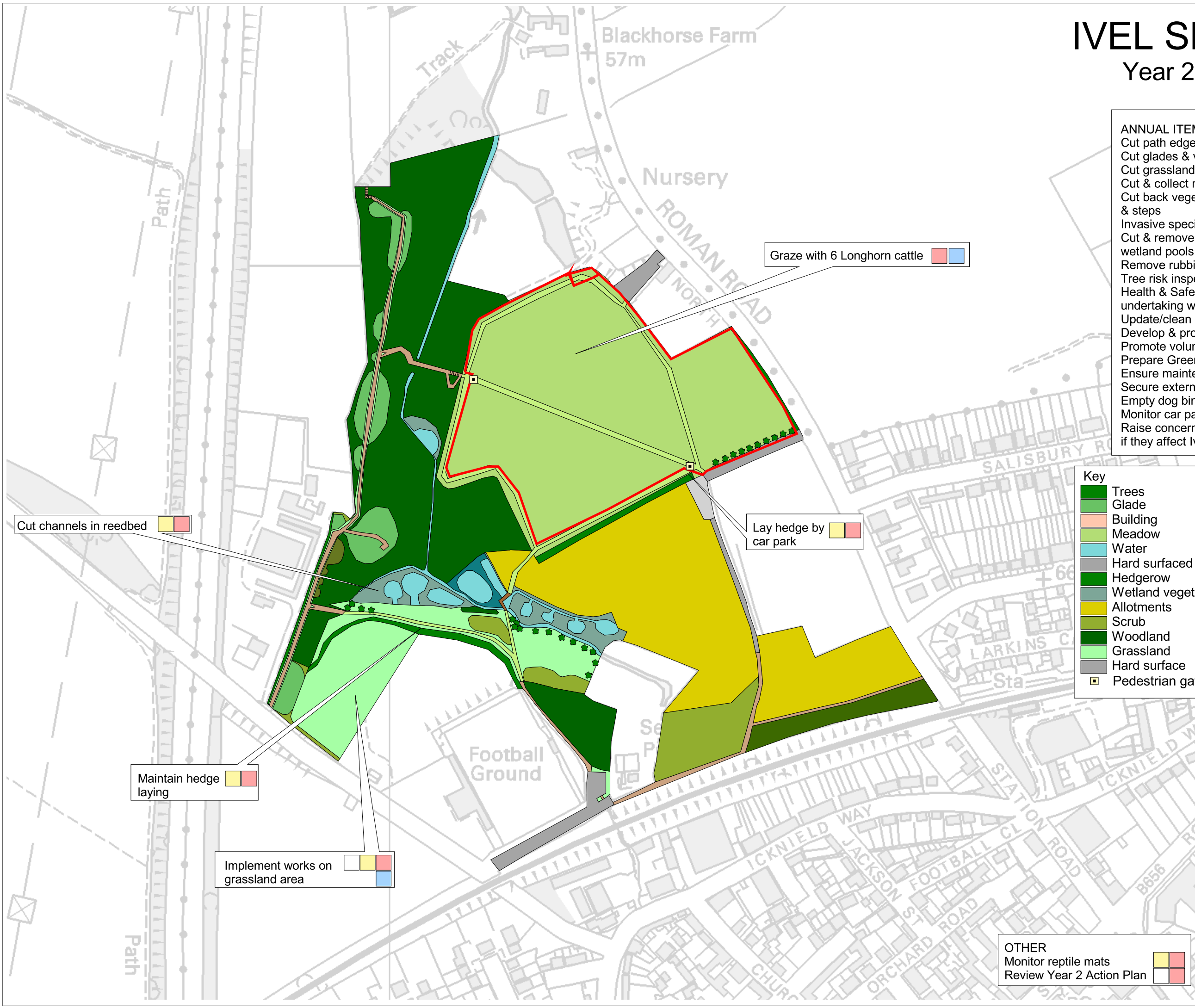
ONE OFF ITEMS
 Consult with residents re grazing
 Train volunteer cattle checkers
 Update entrance interpretation panels
 Update leaflet
 Contact Network Rail re tunnel improvements
 Contact Anglian Water re sewage pumping station and river care project
 Contact Kingfisher Way representative re signage
 Plan works on new grassland area

5.3 YEAR 2 ACTION PLAN 2016-17

Action	Obj no.	When	Responsibility	Funding	Estimated Cost (VAT)	Spec ref.	Status Completed/ Comments
Cattle grazing – 9 Longhorn cattle for 12 weeks (£352.40 delivery/collection & £715.20 husbandry 2 checks per week)	E1	Jul-Sep	CMS	NHDC Budget/ External	£1067.20		
Invasive species control – Giant Hogweed & Japanese Knotweed	E6	Jun-Sep	NHDC	NHDC GM Budget	£1540		
Cut channels in reedbed	E2	Sep-Feb	CMS	Vols			
Maintain hedge laying - main hedge	E3	Sep-Feb	CMS	Vols			
New hedge laying – by car park	E3	Sep-Feb	CMS	Vols			
Implement works on new grassland if required	E4	Ongoing	CMS	NHDC GM Budget/ External Funding			
Monitor reptile mats – continue if successful	E3	Ongoing	CMS	Vols			
Review Year 2 Action Plan		Mar 17	NHDC/CMS				

IVEL SPRINGS LNR

Year 2 Action Plan 2016-17

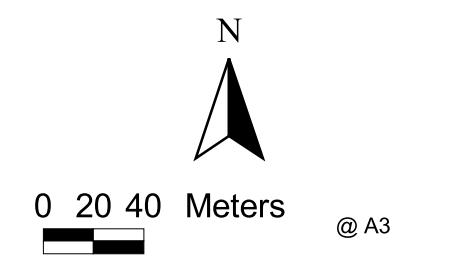


ANNUAL ITEMS

Cut path edges & round signs	White	Blue
Cut glades & viewpoints	White	Blue
Cut grassland above reedbed	White	Blue
Cut & collect meadow	Yellow	Red
Cut back vegetation round boardwalk & steps	White	Blue
Invasive species control	Yellow	Red
Cut & remove vegetation around wetland pools	White	Blue
Remove rubbish & fly tip	White	Blue
Tree risk inspections	White	Blue
Health & Safety inspections & undertaking works	White	Blue
Update/clean signs & notice boards	Yellow	Red
Develop & promote Friends group	White	Red
Promote volunteer & community events	White	Red
Prepare Green Flag Application	White	Red
Ensure maintenance costs are sustainable	White	Red
Secure external funding for capital works	White	Red
Empty dog bins	White	Blue
Monitor car park usage	White	Yellow
Raise concerns to planning applications if they affect Ivel Springs LNR	White	Yellow

Key

Trees	Dark Green	Permeable path	Brown
Glade	Light Green	Wet woodland	Dark Blue
Building	Orange	Commemorative trees	Light Green
Meadow	Yellow-Green	Woodland planting	Dark Green
Water	Blue	Grass path	Light Green
Hard surfaced track	Grey	Road	Grey
Hedgerow	Dark Green	Car park	Grey
Wetland vegetation	Teal	Boardwalk	Brown
Allotments	Yellow	Woodland glade	Dark Green
Scrub	Light Green	North Herts District Council	White
Woodland	Dark Green	CMS	Red
Grassland	Light Green	Volunteers	Yellow
Hard surface	Grey	Contractors	Blue
Pedestrian gate	White square with black border	Fencing	Red line



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OTHER

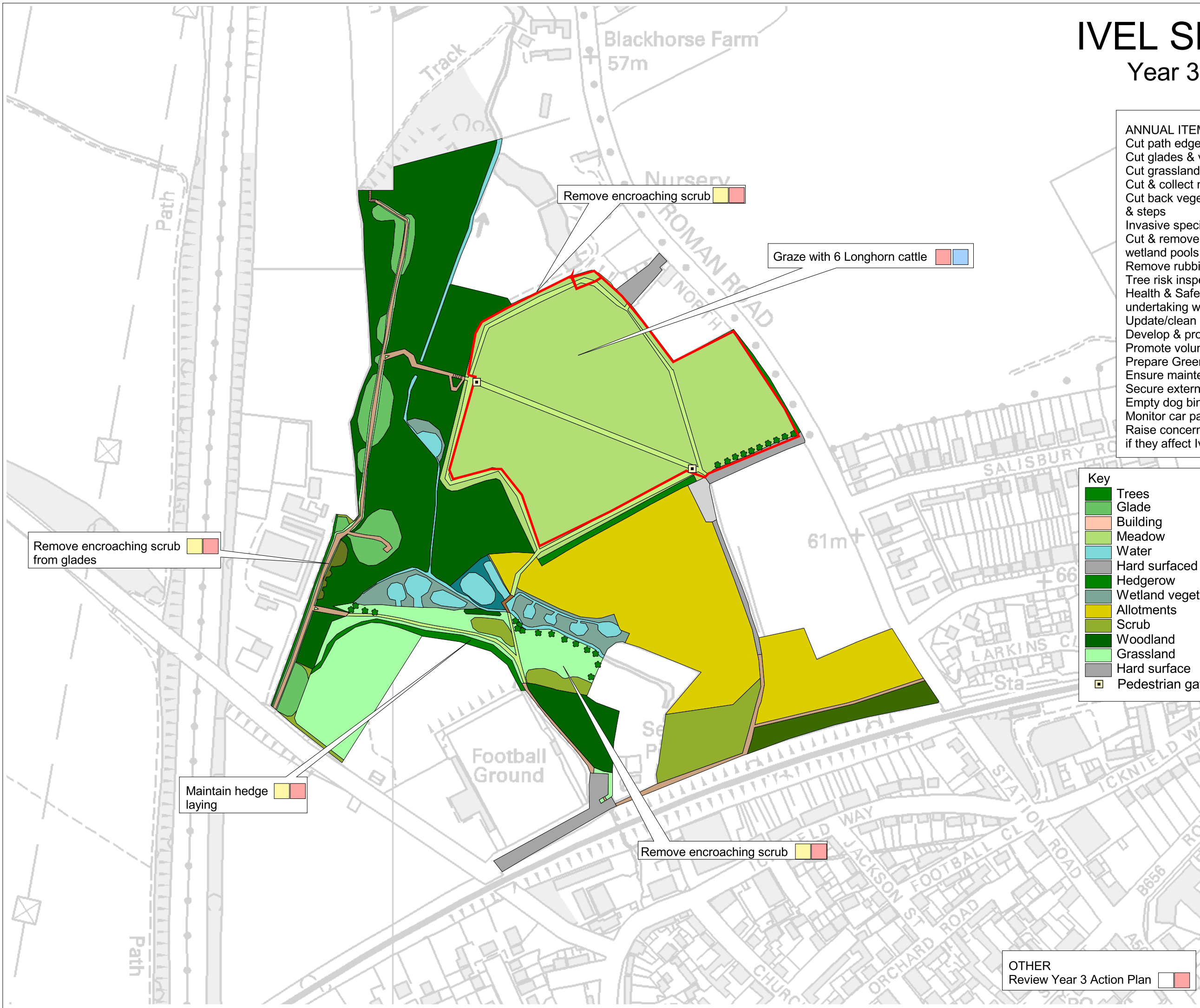
Monitor reptile mats	Yellow	Red
Review Year 2 Action Plan	White	Red

5.4 YEAR 3 ACTION PLAN 2017-18

Action	Obj no.	When	Responsibility	Funding	Estimated Cost (VAT)	Spec ref.	Status Completed/ Comments
Cattle grazing – 9 Longhorn cattle for 12 weeks (£352.40 delivery/collection & £715.20 husbandry 2 checks per week)	E1	Jul-Sep	CMS	NHDC Budget/ External	£1067.20		
Invasive species control – Giant Hogweed & Japanese Knotweed	E6	Jun-Sep	NHDC	NHDC GM Budget	£200		
Remove encroaching scrub from grassland areas	E3	Sep-Feb	CMS	Vols			
Maintain hedge laying - main hedge	E3	Sep-Feb	CMS	Vols			
Review Year 3 Action Plan		Mar 18	NHDC/CMS				

IVEL SPRINGS LNR

Year 3 Action Plan 2017-18

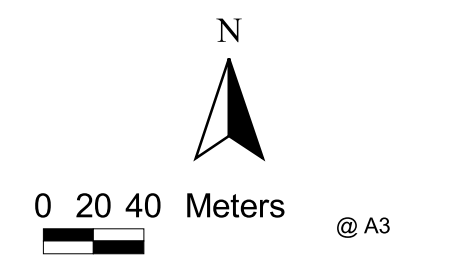


ANNUAL ITEMS

Cut path edges & round signs				
Cut glades & viewpoints				
Cut grassland above reedbed				
Cut & collect meadow				
Cut back vegetation round boardwalk & steps				
Invasive species control				
Cut & remove vegetation around wetland pools				
Remove rubbish & fly tip				
Tree risk inspections				
Health & Safety inspections & undertaking works				
Update/clean signs & notice boards				
Develop & promote Friends group				
Promote volunteer & community events				
Prepare Green Flag Application				
Ensure maintenance costs are sustainable				
Secure external funding for capital works				
Empty dog bins				
Monitor car park usage				
Raise concerns to planning applications if they affect Ivel Springs LNR				

Key

Trees	Permeable path
Glade	Wet woodland
Building	Commemorative trees
Meadow	Woodland planting
Water	Grass path
Hard surfaced track	Road
Hedgerow	Car park
Wetland vegetation	Boardwalk
Allotments	Woodland glade
Scrub	North Herts District Council
Woodland	CMS
Grassland	Volunteers
Hard surface	Contractors
Pedestrian gate	Fencing



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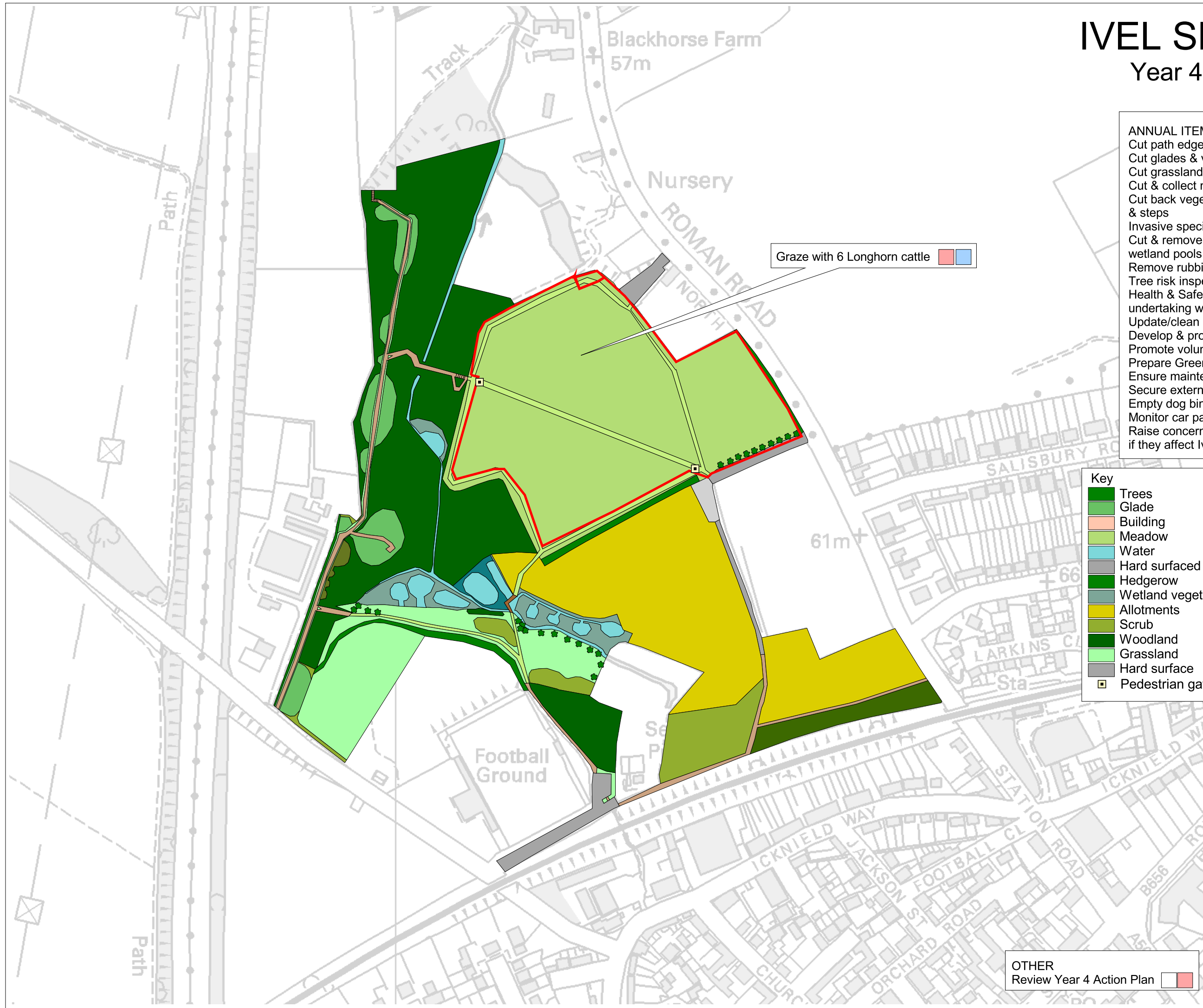
OTHER
 Review Year 3 Action Plan

5.5 YEAR 4 ACTION PLAN 2018-19

Action	Obj no.	When	Responsibility	Funding	Estimated Cost (VAT)	Spec ref.	Status Completed/ Comments
Cattle grazing – 9 Longhorn cattle for 12 weeks (£352.40 delivery/collection & £715.20 husbandry 2 checks per week)	E1	Jul-Sep	CMS	NHDC Budget/ External	£1067.20		
Invasive species control – Giant Hogweed & Japanese Knotweed	E6	Jun-Sep	NHDC	NHDC GM Budget	£200		
Review Year 4 Action Plan		Mar 19	NHDC/CMS				

IVEL SPRINGS LNR

Year 4 Action Plan 2018-19

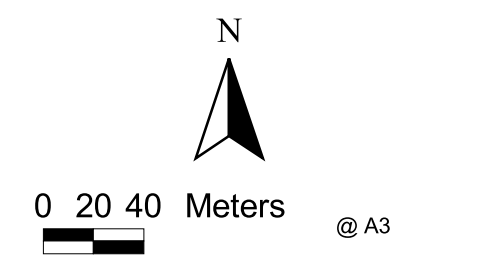


ANNUAL ITEMS

Cut path edges & round signs				
Cut glades & viewpoints				
Cut grassland above reedbed				
Cut & collect meadow				
Cut back vegetation round boardwalk & steps				
Invasive species control				
Cut & remove vegetation around wetland pools				
Remove rubbish & fly tip				
Tree risk inspections				
Health & Safety inspections & undertaking works				
Update/clean signs & notice boards				
Develop & promote Friends group				
Promote volunteer & community events				
Prepare Green Flag Application				
Ensure maintenance costs are sustainable				
Secure external funding for capital works				
Empty dog bins				
Monitor car park usage				
Raise concerns to planning applications if they affect Ivel Springs LNR				

Key

Trees	Permeable path
Glade	Wet woodland
Building	Commemorative trees
Meadow	Woodland planting
Water	Grass path
Hard surfaced track	Road
Hedgerow	Car park
Wetland vegetation	Boardwalk
Allotments	Woodland glade
Scrub	North Herts District Council
Woodland	CMS
Grassland	Volunteers
Hard surface	Contractors
Pedestrian gate	Fencing



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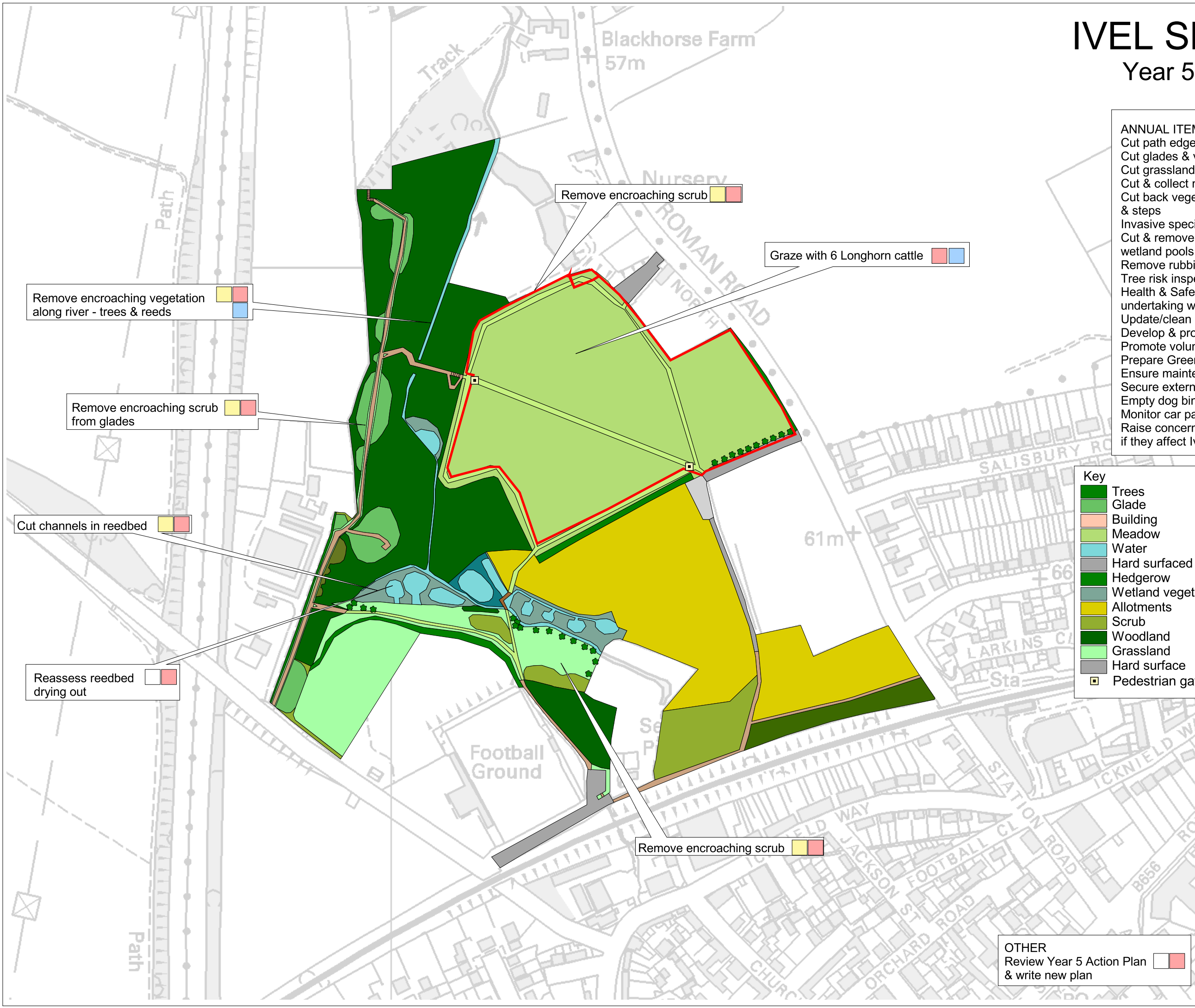
Review Year 4 Action Plan	
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5.6 YEAR 5 ACTION PLAN 2019-20

Action	Obj no.	When	Responsibility	Funding	Estimated Cost (VAT)	Spec ref.	Status Completed/ Comments
Cattle grazing – 9 Longhorn cattle for 12 weeks (£352.40 delivery/collection & £715.20 husbandry 2 checks per week)	E1	Jul-Sep	CMS	NHDC Budget/ External	£1067.20		
Review invasive species control – Giant Hogweed & Japanese Knotweed	E6	Jun-Sep	NHDC	NHDC GM Budget	£?		
Remove encroaching scrub from grassland areas	E3	Sep-Feb	CMS	Vols			
Cut channels in reedbed	E2	Sep-Feb	CMS	Vols			
Remove encroaching vegetation along river – trees & reeds	E2	Sep-Feb	CMS	Vols – reeds maybe contractor	tbc		
Maintain hedge laying - main hedge & by equitation centre	E3	Sep-Feb	CMS	Vols			
Reassess reedbed drying out	E2	All year	NHDC/CMS				
Review Year 5 Action Plan and consult & write new plan		Apr 19	NHDC/CMS				

IVEL SPRINGS LNR

Year 5 Action Plan 2019-20

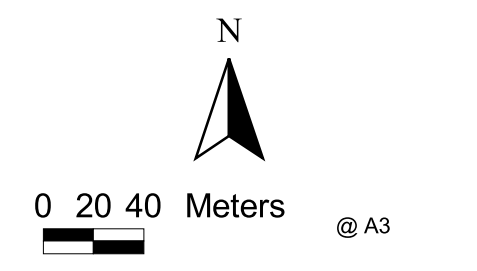


ANNUAL ITEMS

Cut path edges & round signs				
Cut glades & viewpoints				
Cut grassland above reedbed				
Cut & collect meadow				
Cut back vegetation round boardwalk & steps				
Invasive species control				
Cut & remove vegetation around wetland pools				
Remove rubbish & fly tip				
Tree risk inspections				
Health & Safety inspections & undertaking works				
Update/clean signs & notice boards				
Develop & promote Friends group				
Promote volunteer & community events				
Prepare Green Flag Application				
Ensure maintenance costs are sustainable				
Secure external funding for capital works				
Empty dog bins				
Monitor car park usage				
Raise concerns to planning applications if they affect Ivel Springs LNR				

Key

Trees	Permeable path
Glade	Wet woodland
Building	Commemorative trees
Meadow	Woodland planting
Water	Grass path
Hard surfaced track	Road
Hedgerow	Car park
Wetland vegetation	Boardwalk
Allotments	Woodland glade
Scrub	North Herts District Council
Woodland	CMS
Grassland	Volunteers
Hard surface	Contractors
□ Pedestrian gate	Fencing



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OTHER
 Review Year 5 Action Plan & write new plan

6.0 SPECIFICATION

6.1 GRAZING

Stock fencing will be installed around the perimeter of the meadow. Alongside the allotments and round to the woodland entrance, the fencing will be installed further into the meadow so that a mown path can be maintained and the public can choose to walk in with the cattle or around the edge. Kissing gates will be installed so that the whole meadow remains accessible all year long. The fencing alongside the main entrance track will be replaced with post and four rails to maintain the sites security and define the access to the site.

Up to 9 Longhorn cattle will graze the site for a 12 week period between July and September, there will be a small stock handling area created at the far side of the meadow to help with moving the animals from site. A water trough will be installed in the meadow near to the allotment side of the site and would be fed from the mains water supply in the allotments. There would be an initial cost to set up grazing but once established it would reduce the need for the annual cut and collect.

Volunteers could become involved with the grazing by becoming volunteer cattle checkers, full training would be provided by CMS

6.2 GRASSLAND ABOVE REEDBED

Cutting the grassland on the bank above the reedbed and down to the sewage pumping station area three times a year in April, June and September will look to reduce the dominance of nettles and brambles and allow grasses to take hold. Maintain an undisturbed buffer strip between the grassland and wetland. The reedbed bank edge may need to cut using brushcutters as the bank is quite steep for machines.

6.3 GLADES

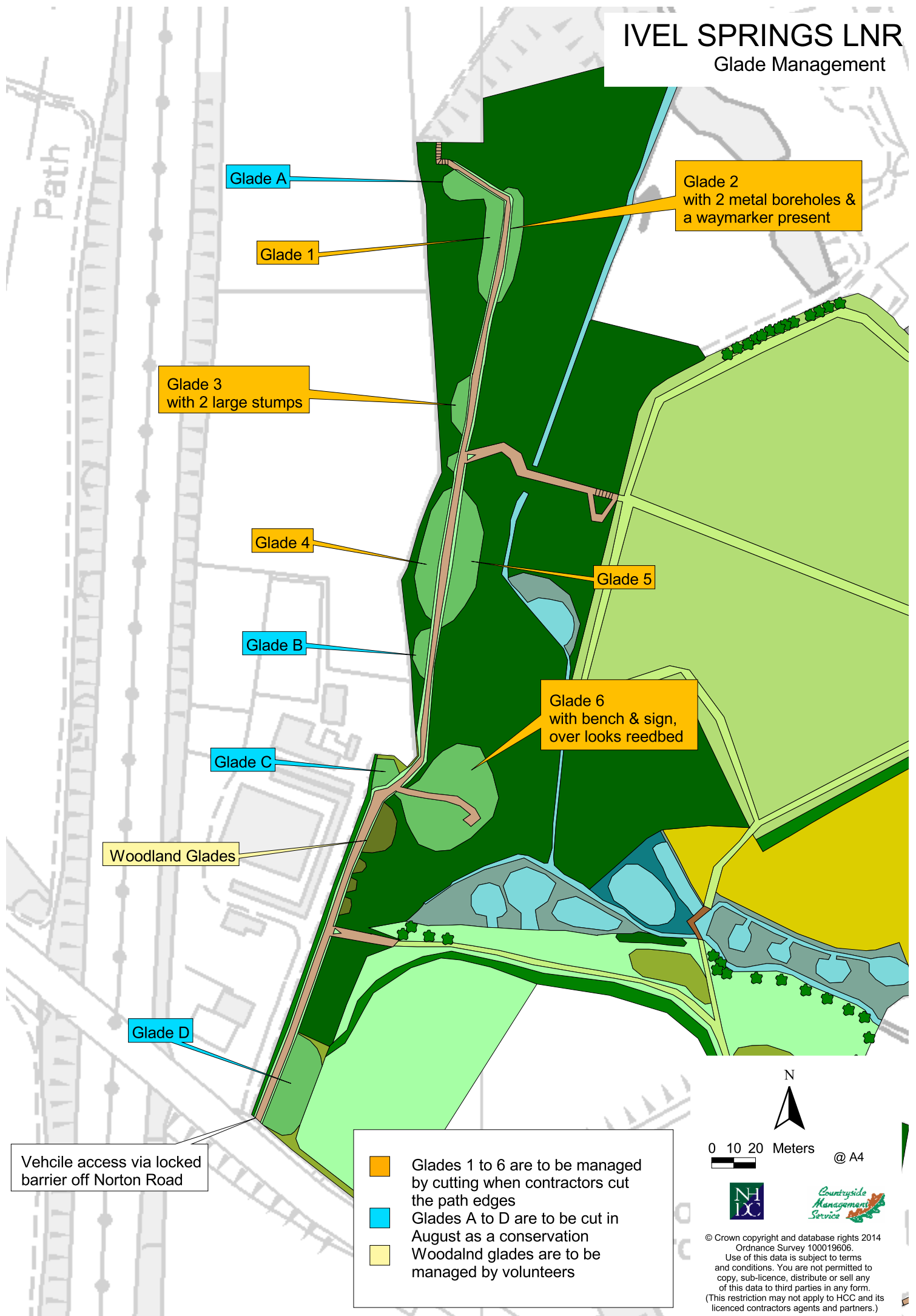
The glades along the track which runs parallel to the equitation centre need to be cut to maintain their biodiversity. The main glades 1 to 6 are to be cut more regularly by contractors when cutting the path edges. Glades A to D are to be cut as a conservation cut, being cut in August, to help promote a greater diversity of flowers. Volunteer will manage the woodland glades and will remove any encroaching scrub from all other glades. See map below.

6.4 WETLAND VEGETATION CUTTING

The vegetation between the pools needs to be managed on a rotation with a third cut by volunteers every year, this will have to be done using hand tools (possibly brushcutter), the material is to be raked up and stacked as habitat piles on the allotment side of the bank but not against the fence. See map below.

IVEL SPRINGS LNR

Glade Management



Glade A

Glade 1

Glade 3
with 2 large stumps

Glade 4

Glade B

Glade C

Woodland Glades

Glade D

Glade 2
with 2 metal boreholes &
a waymarker present

Glade 5

Glade 6
with bench & sign,
over looks reedbed

Vehicle access via locked
barrier off Norton Road

- Glades 1 to 6 are to be managed by cutting when contractors cut the path edges
- Glades A to D are to be cut in August as a conservation
- Woodland glades are to be managed by volunteers



0 10 20 Meters @ A4



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IVEL SPRINGS LNR



Wetland Vegetation Cutting

Wetland vegetation, a third to be cut each year
Area 1 - 2015-16 & 2018-19
Area 2 - 2016-17 & 2019-20
Area 3 - 2017-18



N

0 3 6 Meters @ A4



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6.5 HEDGE LAYING & PLANTING

Hedge laying should use hazel stakes or similar not willow, willow or hazel can be used for the bindings. New hedge planting should use native species ideally provenance 402 (405 or 406 acceptable) – with species mix including hazel, field maple, hawthorn and spindle.



Hedge Planting

Guidance Notes

**Hertfordshire
Countryside Management
Service**

For further information on this or any matter concerned with countryside conservation contact your local CMS office.

Northeastern Area
Phone 01462 459395
northeast.cms@hertscc.gov.uk

West & Southern Area
Phone 01727 848168
southwest.cms@hertscc.gov.uk

or browse the web site at
www.hertsdirect.gov.uk/cms

Planting a new hedge is a long term commitment and should be considered carefully. This leaflet aims to outline the main points that will ensure success.

Site Preparation

To aid establishment the site should be prepared prior to planting. Plough, rotovate or dig a strip 60cm wide by 30cm deep and create a weed free strip about 1m wide, either by cultivation or herbicide.

Plant Selection

Bare root transplants of 30cm to 60cm should be used, of a species mix which matches surrounding hedges. For further advice on suitable species contact your local CMS officer.

As a basic guide the species mix should be predominantly hawthorn. You may use blackthorn but be aware that it suckers vigorously and you may therefore wish to leave it out.

To this a small proportion of shrubs indicative of the local area could be included, but when doing this avoid regular spacing as this may create a striped unnatural effect.

Planting Out

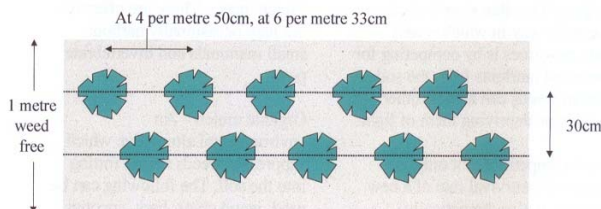
Plant as soon as possible after obtaining the plants. All roots should be protected while exposed to prevent drying out or frost damage. This includes during planting out when a slight breeze can soon dry the roots.

Plant during the Winter, or ideally late Autumn or early Spring to avoid heavy frosts, but while the soil is moist.

If the ground is very soft or has been cultivated then slot planting maybe an option otherwise pit planting is better.

The plants should be spaced in a staggered double row with 4 to 6 plants per metre.

Planting Layout



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Protection

Wild animals such as rabbits, voles or deer can decimate a newly planted hedge so protection of new plants is essential. Individual guards are generally the easiest way though fencing maybe an option.

Types of Guards

Spiral guards – These expand with the growing plant and protect from browsing animals. Clear guards are generally preferable.

Plastic mesh guards – These can be used where branching is a problem such as with holly.

Tree shelters – While protecting the plant these also aid the trees early development by providing a sheltered environment, but will restrict lateral growth.

Guards should be removed once the plants are well established, say in 3 to 5 years, though caution may be needed where large numbers of rabbits are present.

Domestic Animals

Cattle, sheep and horses may all browse and damage new hedge plants. If they are present then a fence will be required. This should be at least 1m from the hedge and ideally 2m to allow maintenance and prevention of browsing.

Weed Problems

This is perhaps the most important operation when establishing a new hedge and is often over looked. The main way in which weeds harm new trees is by competing for water and nutrients from the soil. Certain weeds can also smother new plants depriving them of light.

Weed competition not only reduces the survival rate of a new planting, it also dramatically reduces their subsequent growth rate. This can mean the difference

between a first year growth rate of 30-40cm and a first year growth rate of just 1-2cm. In extreme cases plants may even experience first year die back. This is more common where standard sized trees are planted.

Weed Control

To prevent weed competition an area 1 metre across should be cleared of vegetation in line with the new hedge. This will require maintenance for the first three years or until the plants become established.

A variety of methods can be used to control weeds as detailed:

Cutting – This will help to control some plants such as nettles and brambles, but will invigorate many others such as grasses and rosette forming herbs, stimulating greater root growth and competition.

Where these weeds predominate cutting will be counter productive.

Hoeing – Can be effective but is labour intensive, and great care will be needed around newly established plants in order to not excessively disturb their roots or damage the bark.

Herbicide – This is cheaper than most alternatives, but requires specialist knowledge and equipment. Advice can only be given by a suitably qualified practitioner.

Mulch mats – These are effective but may occasionally harbour small mammals and invertebrate pests.

Organic mulch – An environmental alternative which suppresses weeds before rotting into the soil. The following can be used: wood chips, bark, coconut fibre, grass cuttings, well rotted horse manure or farm yard manure.

A layer about 4" deep will be required to be effective. Some light weeding and topping up of the layer will be needed in following years.

Losses

If all the precautions listed on this sheet are followed then losses should be minimal, however during extreme weather losses maybe unavoidable and should be replaced the following year.

Hedge Profiles

An early trim at the end of the first growing season will help to produce a thicker hedge. After this the aim should be to produce a hedge 2 metres tall by about 1.5 metres wide, with an A-shaped profile. If a more vertical profile is needed then chamfered top corners will help to produce a similar effect.

Hedgerow Trees

If hedgerow trees are to be included these should be spaced at least 30m apart to prevent them overshadowing the hedge. To establish trees, they can be planted in the line of the new hedge along with the hedge plants, but use tree shelters to allow their identification during maintenance.

Planting Checklist

- ✓ Ground preparation
- ✓ Plant selection and species
- ✓ Time of year
- ✓ Pest protection
- ✓ Weed control



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6.6 REPTILE MATS

This can be done by laying down reptile mats (usually squares of corrugated roofing felt or similar 50cm by 50cm); these mats act as somewhere for the species to go in early spring and autumn to warm up. The felts could be located in some of the glades, by the allotments and in the new grassland area; these are then checked every couple of weeks by carefully lifting up the felts and the species present recorded.

6.7 INVASIVE SPECIES

6.7.1 Giant Hogweed

Giant Hogweed is on a 5 year eradication programme, this will be done by stem injection if the plant has reached sufficient maturity if not knapsack sprayer using Glyphosate. First treatment will be June/July time before the plant flowers with a follow up visit three to four weeks later to make sure no plants were missed. A contractor will need to be employed to carry out the work due to the hazardous nature of the plant; consents to spray near the watercourse will be needed from Environment Agency before the works can start. As with Japanese Knotweed below, the dead canes will be burnt up in an incinerator at the end of the year. This will need to continue for a minimum of 15 years.

6.7.2 Japanese Knotweed

Japanese Knotweed is on a 5 year programme of treatment to try to eradicate it. This requires the stems to be injected before the plant dies using Glyphosate, with a follow up visit three to four weeks later to make sure no plants were missed. This will need to be carried out by a contractor, who will return after the summer and burn any dead canes – this will be done on site in an incinerator.

6.7.3 Comfrey & Horseradish

Comfrey and horseradish will be treated along the bank above the reedbed. First treatment to take place in March then every 6 weeks from there on for up to 4 visits. Each area will be cordoned off from the public while treatments are being undertaken, then once dry reopened to the public. All works will be carried out by fully qualified operatives using knapsack sprayers using a 40% Glyphosate solution.

6.7.4 Himalayan Balsam

Himalayan Balsam will be hand pulled by volunteers in June/July time before they set seed. Plants to be stacked away from the edge of the watercourse and if possible raise off the ground on top of some brash, so the bottom plants can not reroot.

6.7.5 Ragwort

If grazing goes ahead ragwort will need to be removed from the grazing compartment by volunteers using lazy dogs (a tool for digging out ragwort). Material will then be stacked outside of the grazing compartment away from the fence line to compost. Due to the small quantity which is expected to come from the meadow, it is not cost effective to remove from site to be incinerated.

6.8 BENCH SPECIFICATION

Details for oak bench kit for Ivel Springs. Legs to be installed into the ground at a maximum depth of 1m, using either postcrete or deadman's to secure posts. Height from top of seat to ground level between 500-600mm, sit test will need to be done.

Supplier:

Hertfordshire Timber, Southill Sawmills, Southill Park, Southill, Biggleswade, Beds. SG18 9LJ

Tel: 01462 819173

Fax: 01462 851873

Details for supplier:

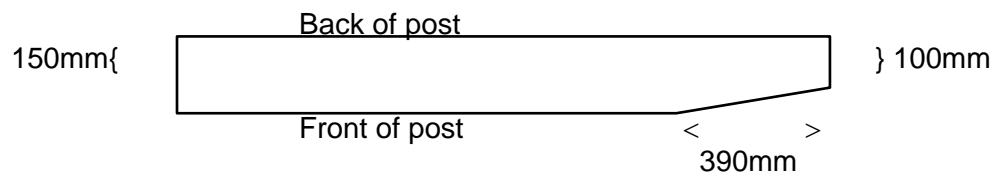
Please supply **one** of the following oak bench kits. For each bench kit the following timber (in oak) and ironmongery (BZP) is required:

Seat and back

- 3 no. 2m x 150mm x 50mm (planed)

Posts

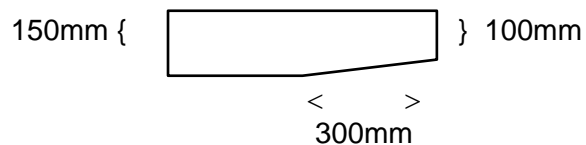
- 2 no. 1.7m x 150mm x 100mm (sawn) - bevelled as shown:



Each pair of posts to have a 20mm deep recess cut on outside, opposite edges to take seat bearers (dimensions below). Recess to be angled at 86 degrees from back edge of post (i.e. so that, when assembled, the seat bearers tilt slightly upwards away from the posts.) Top edge of recess to meet bottom of bevel at front of post.

Seat bearers

- 2 no. 550mm x 150mm x 100mm (sawn) - bevelled as shown:



Ironmongery

6 off 180mm x M12 bolts with nuts and washers

2 off 160mm x M12 bolts with nuts and washers

2 off 140mm x M12 bolts with nuts and washers

10 off timber connectors to fit above

Cost

£198 each + VAT Including delivery as of October 2014.