Epping Forest Proposals for Habitat Conservation

Public Consultation Pack

February 2023



Introduction

Epping Forest is a site of nationally and internationally important habitats and this is recognised in its designations of Site of Special Scientific Interest and Special Area of Conservation. The largest habitat type is wood pasture which has been present probably for at least a thousand years or more. Wood pasture is a patchwork of habitats such as grasslands, heathlands, ponds, bogs and scrub throughout an area of trees, which are often pollards. Pollards are trees that have been worked by cutting the stems at head height to produce a crop of wood, this was repeated on each tree around every 15 years, this kept the trees short. This pollarding practice encourages vigorous tree growth and tends to prolong the tree's lifespan. Whilst some old pollards become very big, some pollards remain small, but they are both very old and are called veteran or ancient pollards depending on their age. Worked pollards allow a greater amount of light to reach the Forest floor where different plants can grow, this is the 'pasture' part of wood pasture, which allow animals to graze. This makes Epping Forest an ancient, worked landscape.

At the end of the 19th century the working of pollards stopped, and over the 20th century commoners' grazing gradually ended. As the pollards were not being re-cut every 15 or so years, the stems on the pollards carried on growing. On some trees these stems have grown as big as young trees, so that one pollard can have a cluster of tree-sized stems growing on its trunk. This puts a lot of stress on the tree and they can fall apart. The Forest has about 50,000 veteran or ancient pollards mostly oak, beech or hornbeam.

The veteran pollards of the Forest are rich in biodiversity because they have more complex structures than trees that have grown naturally. This allows the pollards to provide more habitats within the tree and therefore host a larger number of species. Pollards tend to live longer than other trees and therefore allow species that are slow to move around to colonise other pollards. Epping forest is particularly rich in insects and fungi that are associated with wood pasture. Wood pasture therefore makes Epping Forest extremely important for nature conservation.

The cessation of working the pollards and decline of cattle grazing allowed the open habitats of the Forest to become infilled with young trees and scrub increasing the shade around pollards and shading out the Forest floor plants, ponds, bogs and reducing the size of the ancient plains, heaths and grasslands. What is required is to open the habitats back up to promote grazing across their areas. The veteran pollards need to continue to be managed to prolong their lives whilst new pollards are made to become veteran pollards of the future.

In 2020 the first phase of a new conservation habitats programme was started across some parts of Epping Forest. This work builds on decades of conservation habitat work started in the late 1980s, which saw the veteran pollards being managed consistently for the first time since the Victorian period. Since that time conservation work has expanded and has delivered sensitive management of the grasslands, heathlands, scrub, ponds and wood pasture covering hundreds of hectares, which included the start of conservation grazing and the development of an Epping Forest cattle herd.

A second phase of conservation habitat management is presented here as proposals. Alongside this are proposals to help improve how visitors are welcomed to the Forest and how they can find their way around. Welcome signs, information boards, signs to give directions are proposed throughout a wide area. This will encourage visitors to explore other parts of the Forest and improve their visit by providing more information about Epping Forest.

The proposals would be partly funded through a Defra Countryside Stewardship grant for which an application is being prepared.

These proposals are part of the <u>Epping Forest Management Strategy</u> which meets part of the City of London Corporation's <u>Corporate Plan</u>. It also contributes to the government's <u>25 Year Environment Plan</u>.

Your Thoughts & Feedback

We would like to hear what you think of the proposals. Email your comments and feedback to the Epping. Email your comments and feedback to the Epping. Forest Team (epping.forest@cityoflondon.gov.uk). Please put 'Forest Habitat Proposals Consultation' in the subject line.

If you want to comment on a particular area or proposal please either refer to the map number, or point reference e.g. P281 or A285, or area name e.g. Lower Forest.





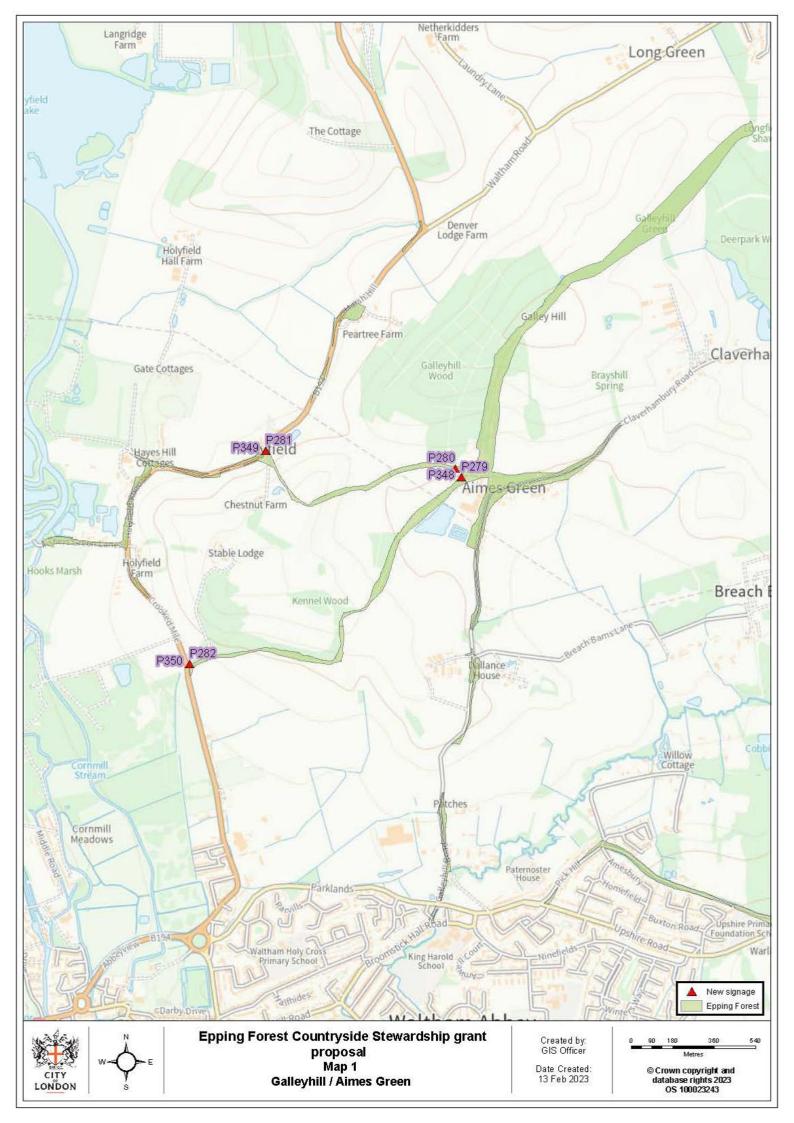
New pollards in an area of restored wood pasture

Veteran hornbeam pollard that hasn't been recut for over 100 years wood pasture that has become shady

Galleyhill, Waltham Abbey

This is the north-west most part of Epping Forest and comprises ancient green lanes, so the Forest here is long and thin. These lanes meet at Aimes Green in the middle. These green lanes have a wide variety of plants and have a tranquil rural countryside feel.

It can be difficult to determine which areas are Epping Forest so new signposts are proposed to help visitors find their way.



Lower Forest, Epping – Also known as Wintry Wood

This area is quite different to the rest of Epping Forest because of the abundance of tall straight oak trees. It has a different ground flora to the rest of the Forest because of its different soil type. This area used to be much more open wood pasture, and oak and hornbeam pollards remain. There are two main rides which meet in the middle of Lower Forest, here wildflowers such as Primroses, Wood-Sorrel, Betony and Violets can be seen. The proposed work in Lower Forest would focus on these two main rides and two ponds.

The rides will be opened up (A285) to give more space for a greater diversity of plant species including wildflowers. There will also be increased light for the veteran oak and hornbeam pollards which will encourage their growth and improve their vitality. Some of the veteran trees will receive pruning work to help increase their longevity and improve their health and stability, and interspersed through the area new pollards will be created to become veteran pollards of the future. The area at the intersection of the two main rides will be opened up to increase the size of the glade towards its former size.

At the northern end of the north-sound ride the area of open grassland, called Thornwood Common (A289), will be expanded to start to restore the area back to its former size. This will benefit the wild plants here such as Violets and ferns as well as a variety of different grass species.

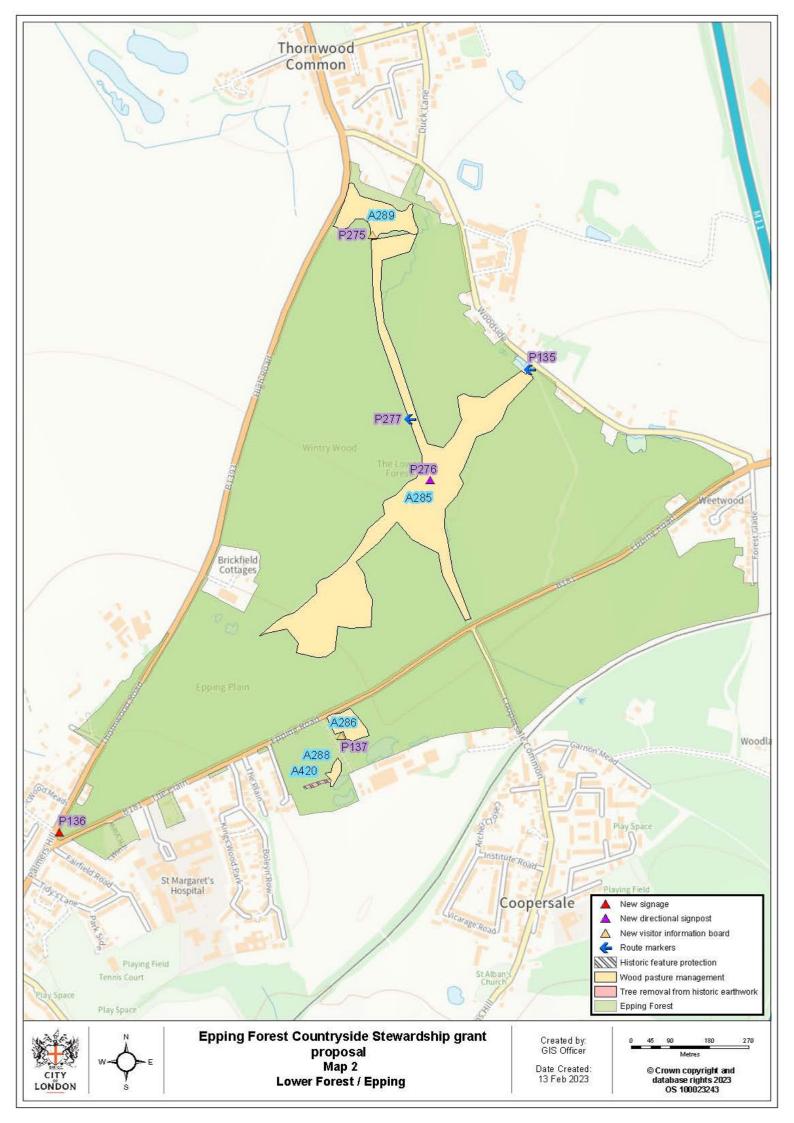
Tree cover has increased around the main lake during the 20th century and this has resulted in the loss of pond plants. This loss of plants and increase in shade has resulted in a reduction in pond wildlife. The area around the lake will be opened up to encourage the return of these plants and hopefully an increase in wildlife. One species that used to be recorded here was the Downy Emerald dragonfly which is scarce in Epping Forest. On the other side of the road, a smaller pond will be opened up. By improving the condition of more than one pond in the area it will help to strengthen local populations of species that rely on healthy ponds.

The glade by the car park (A286) will be opened up to allow the grassland to be better managed to benefit the plant species. By making sunny glades across Lower Forest there will be more areas for wildlife that need these habitats and this will help to increase the local biodiversity.

There is also a short section of the Medieval Purlieu Bank (A420), an earth mound that was used to denote the boundary of the historic royal Forest. The best preservation of earthworks is to prevent any damage or disturbance of their structures. Tree roots disturb the soil of earthworks, so the bank will be cleared of woody vegetation and kept open to preserve this structure for longer.

Route markers and signage will be installed at a couple of locations to welcome visitors to the site and help them find their way.

- Improve the condition of the habitats in these areas and make them better connected
- Increase the health and longevity of the veteran trees
- Create new pollards which will become veteran pollards of the future
- Increase the area of restored wood pasture and old plains
- Encourage the spread of Epping Forest scarce species as well as plants of the Forest floor in general
- Increase the amount of deadwood habitat, thereby encouraging and increasing the population of species that rely on dead wood
- Create the conditions to promote an increase in biodiversity in the area
- Protect a remnant of the Medieval Purlieu Bank
- Welcome visitors and help them find their way around the site



The Selvage and Gifford's Meadow, Upshire

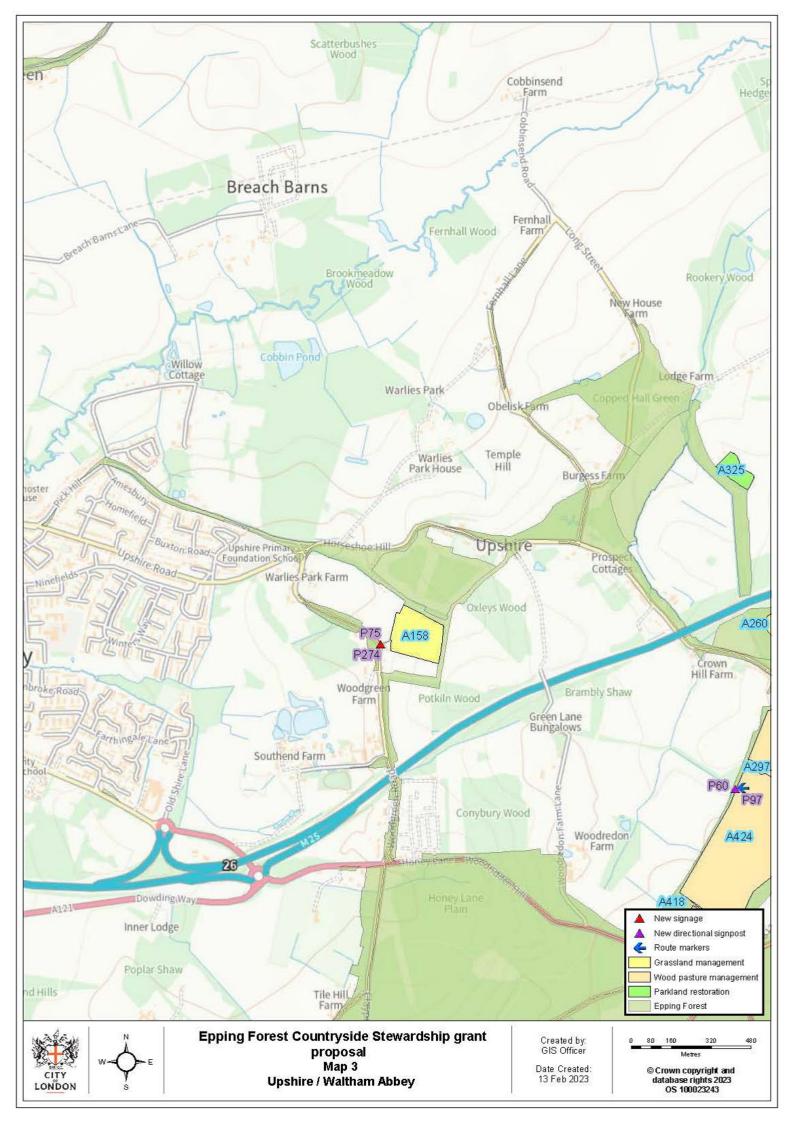
The Selvage (A325) is a long thin strip of woodland with a path through the middle. It has a mixture of tree species as well as some planted conifers on the eastern side. This eastern block of conifers borders the Copped Hall field that is next to the Copped Hall mansion. Cattle graze over this field in the summer. It is proposed to selectively remove some of the conifers in the conifer block to create a more open woodland that would benefit species and promote grazing within it which will help to further improve biodiversity.

Giffords Meadow (A158) is one of three fields that are the newest addition to Epping Forest with the two fields to the north which were made into Gifford Wood.

This meadow contains a good diversity of grassland plants including flowers such as Sneezewort, Knapweed and Birds' Foot Trefoil. It also has anthills and a boundary of mature trees and scrub. A good diversity of wildlife is found in the meadow such as the Marble White butterfly, grasshoppers and mammals. It is proposed to manage the grassland for its plant species and keep as an open meadow which will be good for wildlife and complement the adjacent ancient green lane and new woodlands to the north.

A new welcome board (P75, A274) will be installed near to one of the entrances of Gifford's Meadow to help direct visitors.

- Improve the habitat on the edge of the Copped Hall field to promote biodiversity
- To manage Gifford's Meadow to keep it open and preserve the grassland and its plant diversity and associated wildlife
- Welcome visitors and help them find their way around the site



Epping Thicks & Sheppard's Meadows, Epping

Work will be targeted to the areas that can provide the best potential biodiversity improvements, which are two ponds and an area of hornbeam pollards around the Victorian Ride.

The area around the Hawcock and Pizzle Pit South ponds (A401) will be opened up to increase light to these ponds and help them improve their condition and encourage a return of a range of aquatic plants. It is hoped this will encourage wildlife such as amphibians and dragonflies to return, Great Crested Newts and Downy Emerald dragonflies used to be recorded at Pizzle Pits South Pond.

The area in between the ponds will also be opened up to increase the light and encourage the reestablishment of Forest floor plants, and new scattered pollards will be created. The adjacent Kemp's Lawn, a remnant of a former grassland that once used to stretch from the Ivy Chimneys Road to Ambresbury Banks, will continue to be managed to keep this old damp grassland open.

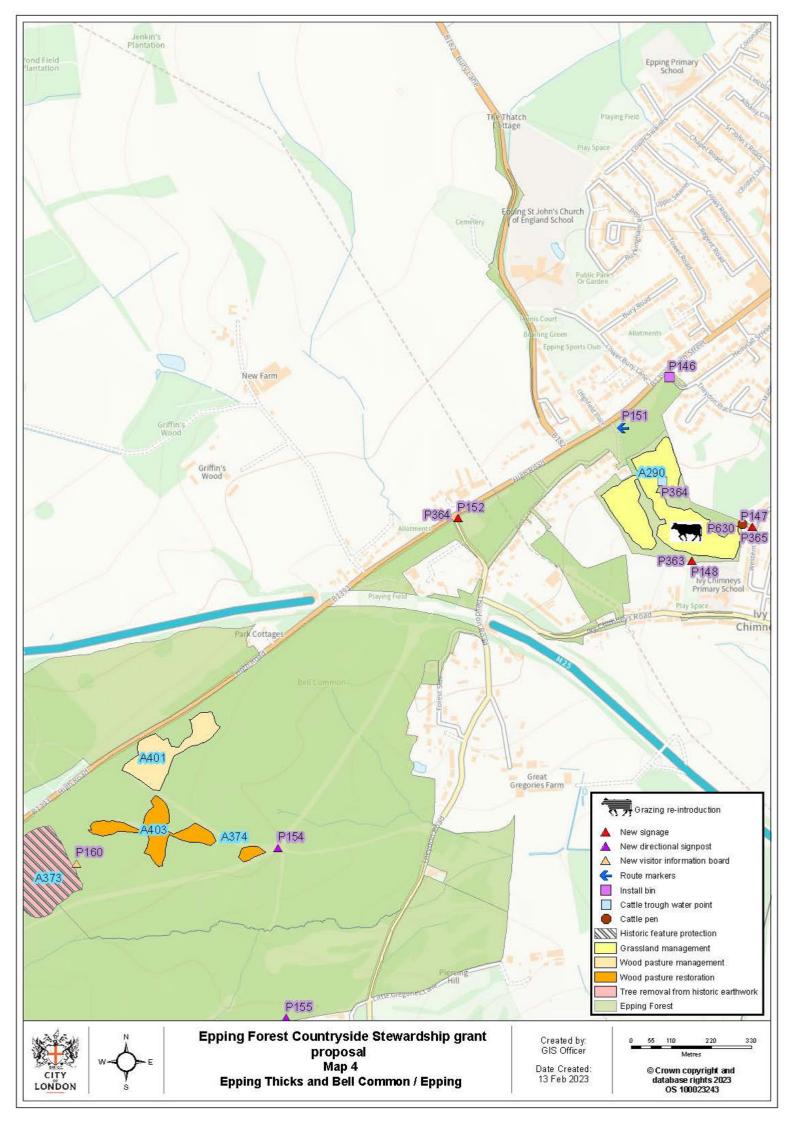
On the south side of the Victorian Ride (A403 and A374), work will open the areas up around many old pollards, both hornbeam and beech. The increase in light to these veteran trees will help to promote growth and therefore increase their lifespans. Some trees will receive sensitive pruning to reduce their canopies and improve their stability, thereby decreasing the chance of them collapsing. Scattered across the area new pollards will be created that will succeed these old trees as veterans for the future, and other young pollards will be reworked thereby keeping them in the pollarding cycle. The area alongside the rides and the connecting areas will also be opened up to encourage development of Forest floor plants.

At the southern end of Epping town is Sheppard's Meadows (A290), added to the Forest in 1991. It has very important flora including the nationally scarce Corky-fruited Water Dropwort, a plant in the carrot family. Other flowers found across these four small meadows are Ladies Bedstraw, Creeping Jenny, Devil's Bit Scabious, Sneezewort and Pignut. The grassland will be managed to preserve this floral diversity, this will be done by removing the encroaching young trees and scrub which are gradually reducing the size of the grassland, as well as continuing to mow the grassland.

Cattle grazing is planned to be introduced to the site. Cattle will help to increase the biodiversity of the site through their dung on which important insects rely. More insects will support a wider range of species that feed on them. To support this grazing, cattle troughs and a cattle handling pen will be installed.

Route markers and signage will be installed at a couple of locations to welcome visitors to the site and help them find their way.

- Improve the condition of the habitats in these areas and make them better connected
- Increase the vitality and longevity of the veteran trees
- Create new pollards which will become veteran pollards of the future
- Increase the area of restored wood pasture and old plains
- Increase the light for flowering scrub which are favoured by insects, birds and mammals
- Improve the condition of ponds which will encourage key groups such as dragonflies and amphibians
- Increase the amount of deadwood habitat, encouraging species that rely on dead wood
- Encourage the re-establishment of Forest floor plants
- Maintain, and ideally increase, the plant diversity of Sheppard's Meadows and increase the wider diversity of all species through the introduction of cattle grazing
- Create the conditions to promote an increase wider biodiversity in the area
- Welcome visitors and help them find their way around the site



St Thomas' Quarters, South of Epping

This part of the Forest is dominated by large veteran beech pollards. The area also contains bogs and a stream complex which support important plant and moss species not found anywhere else in the Forest or in Essex. Therefore, the focus of the work will be to carefully manage a number of beech pollards and manage the area around the bogs and stream to improve their condition and promote their plants.

The bogs (A295, A296, A298) are of great conservation importance supporting notable species such as Bog Pondweed, Cotton-grass, Sundews and Sphagnum mosses. The bogs exist because a road was constructed in ancient times across spring lines causing the bogs to form as the water was dammed. Around the bogs and the stream, the area will be opened up to increase the light and reduce the number of trees drawing water from them thereby helping to prevent them drying out. In addition, some dams will be created to help retain water in the bogs. This may allow an increase in the cover of the Sphagnum bog mosses. An increase in light along the stream corridor will encourage plants to colonise its banks and increase the diversity of species.

Also along the stream (A297) veteran hornbeams, that were last pollarded in the 19th century, will be pollarded once again to increase their lifespans and restore the relict wood pasture which was once open across the local landscape.

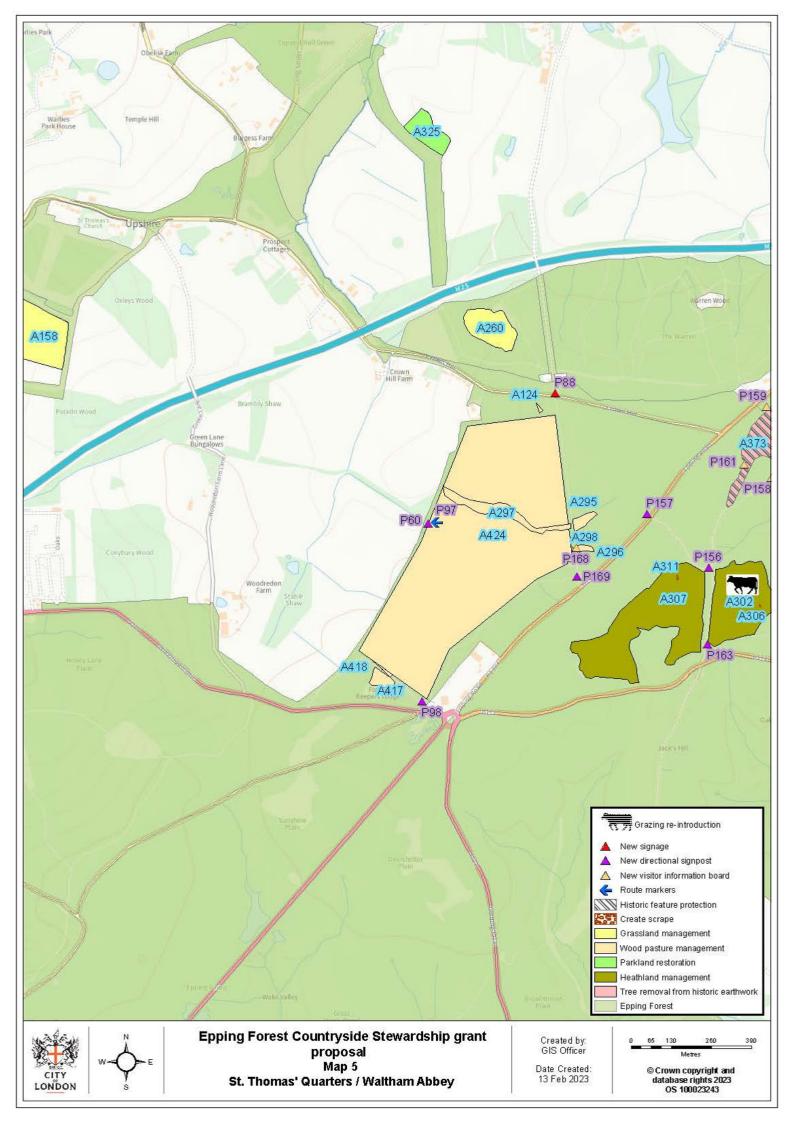
Some of the beech pollards (A424) will be chosen to have their canopies will very gently reduced in size to improve their stability and vitality. By prolonging the life of these old trees, it will allow the young pollards to age and develop the important characteristics that are found in veteran trees which make them so valuable for biodiversity, such as nooks and crannies, as well as deadwood they hold in their canopies.

Rhododendrons (A124, A417, A418) will be removed because Ramorum disease was discovered in 2016 in the nearby Warren plantation, immediately to the north. This disease lives on a variety of trees and shrubs and was found growing on rhododendrons in the Warren Plantation. It can spread to beech trees. With so many very old beech pollards in St Thomas' Quarters an outbreak of Ramorum disease here could cause tree death and is therefore a threat to such a valuable population of important trees. One of Epping Forest's most important habitats is its beech woodlands. Therefore, these rhododendrons will be removed as a disease prevention measure.

Stag beetles have been recorded in the area in the recent past and an increase in deadwood will help encourage these insects.

Welcome boards, route markers and directional posts will be installed at a couple of locations to welcome visitors to the site and help them find their way.

- Improve the condition of the habitats in these areas and make them better connected
- Increase the vitality and longevity of the veteran trees
- Create new pollards which will become veteran pollards of the future
- Restore an area of wood pasture
- Improve the condition of the bogs and the stream corridor and encourage key species such as bog plants
- Increase the amount of deadwood habitat, thereby encouraging an increase in species that rely on dead wood, particularly insects
- Encourage the re-establishment of Forest floor plants
- Create the conditions to promote a wider increase of biodiversity in the area
- Welcome visitors and help them find their way around the site



Long Running, West of Theydon Bois

Long Running (A307) is the biggest area of heathland in Epping Forest, it is a wet heathland, which means it tends be waterlogged in winter and be damp throughout most of the rest of the year. It therefore contains more mosses and different plant species compared to dry heathlands such as those found on Warren Hill or Furze Ground. Long Running has two types of heather and also contains other heathland plants such as Creeping willow, Tormentil and Cotton-grass.

On the west of the ride is Long Running East (A302), this is a dry heath with numerous former gravel pits, but this has a smaller area of heather because over the 20th century trees grew up and shaded out the heathland species and wildlife that live there.

Long Running has been managed for many years to keep the heathland open and maintain the plant diversity. Management techniques include grazing, tree removal, bracken management and stripping away competitive vegetation to increase the space for delicate heathland plants. It is proposed to continue the grazing with a small number of cattle and continue to keep the heathland free of invading trees and undesirable scrub. Heathland species will be encouraged to expand by removing some of the dominant Molinia grass and bracken in small areas (A311, A306) to give room for germination of other species. More widely, bracken will continue to be managed, to prevent this species from expanding and shading out important heathland plant species.

At Long Running East the area of heathland will be expanded by reducing the number of trees to allow the heather and other heathland plants to colonise and expand. In addition, some trees will be made into new pollards. Cattle grazing will be reintroduced to this area, the action of hooves can help to lightly disturb the ground and encourage the germination of plant species, and the dung will increase the local insect population.

Overall, the aims for the proposals for this area are:

- Improve the condition of the existing heathland and increase the area of heathland at Long Running East, thereby increasing wildlife that live on heathlands
- Increase the number of heathland plants, thereby making their populations more sustainable in the long-term
- Reintroduce grazing to Long Running East to help increase the biodiversity of this area
- Create new pollards

Ambresbury Banks

This site is an Iron Age hill fort, just north of Long Running. It was once an open site but became covered in trees when it stopped being used as a hill fort.

Ambresbury Banks (A373) supports a large number of ancient beech trees which have potentially been worked over a thousand years. Therefore, the cultural heritage and biodiversity value of these trees is extremely high and they require protecting. However, these trees pose a risk to the Iron Age earthworks from root growth and trees uprooting. Ancient trees require very slow and sensitive management over decades to help them cope with pruning, this careful management is proposed at this site. The ancient trees will be managed until the ends of their natural lives. There are a large number of mixed-aged birch on the site as well. These trees also pose a threat to the earthworks and will need to be removed carefully in

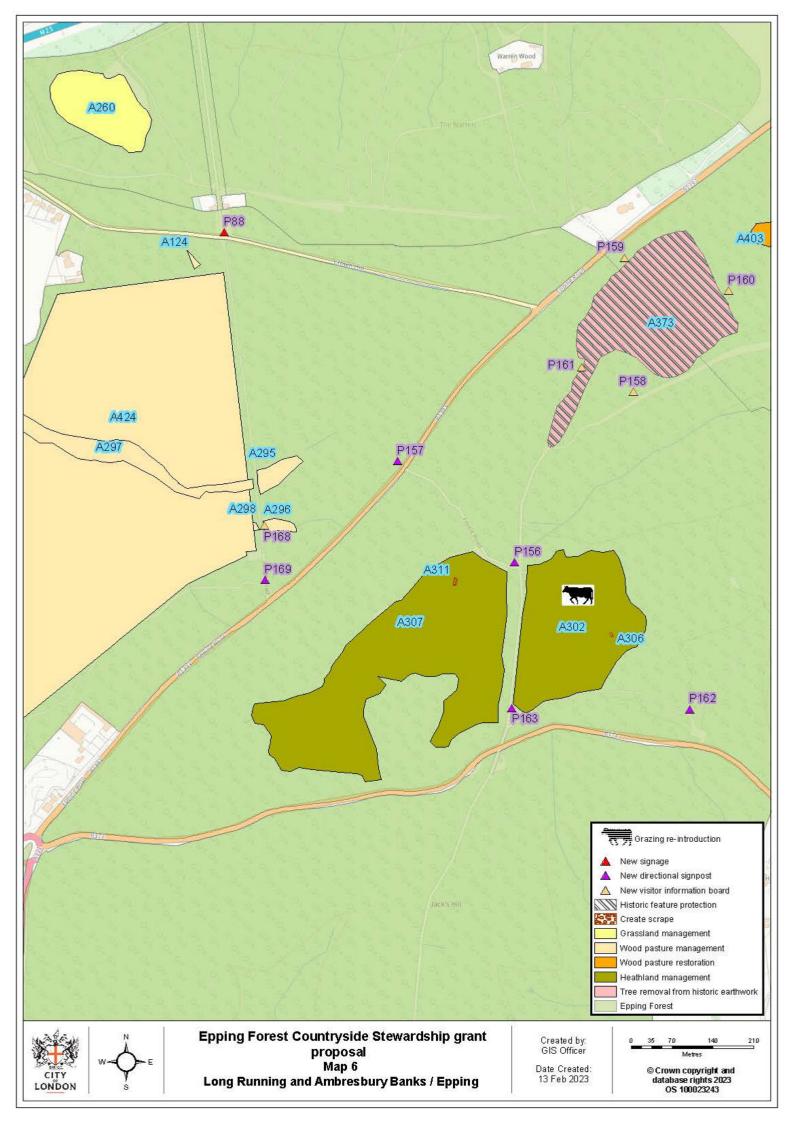
stages over the next couple of decades. Over many decades a grassy sward will develop over the hillfort which will help reduce erosion of the earthworks.

Welcoming Visitors

Route markers and signage will be installed at a couple of locations to welcome visitors to the site and help them find their way. This includes better interpretation at Ambresbury Banks to explain the importance and history of this hill fort.

Overall, the aims of the work here are to:

- Stabilise the ancient beech trees on the site to reduce the risk of their damaging the Iron Age hill fort earthworks
- Start a decades-long programme of careful tree removal in small stages with the aim of encouraging a grassy sward to develop over the earthworks to maximise their protection
- Welcome visitors and help them find their way around and understand the site



Theydon Plain, Theydon Bois

Theydon Plain (A312) is one of the old grasslands of the Forest, it is an acid grassland which means that the plants grow in a low nutrient soil and this favours some species. This grassland also has a small area of anthills which are small earth mounds ants make to live in. These anthills are of high ecological importance as the mounds create a microclimate around them which allows different species to live here compared to the open grassland. These are good not only for ants but for other wildlife.

Over time new trees have continued to grow on the edges and the grassland has become smaller. In addition, some of the anthills have become shaded out and this will cause ants to abandon them.

The proposal is to increase the grassland on the east side and continue the existing grassland mowing regime. This will reveal some of the old anthills which will hopefully be colonised again.

Directional posts and an information board will be installed to welcome visitors to the site and help them find their way.

Overall, the aims for the proposals for this area are:

- Increase the area of acid grassland
- Protect the anthills and encourage other species associated with them
- Welcome visitors and help them find their way around the site

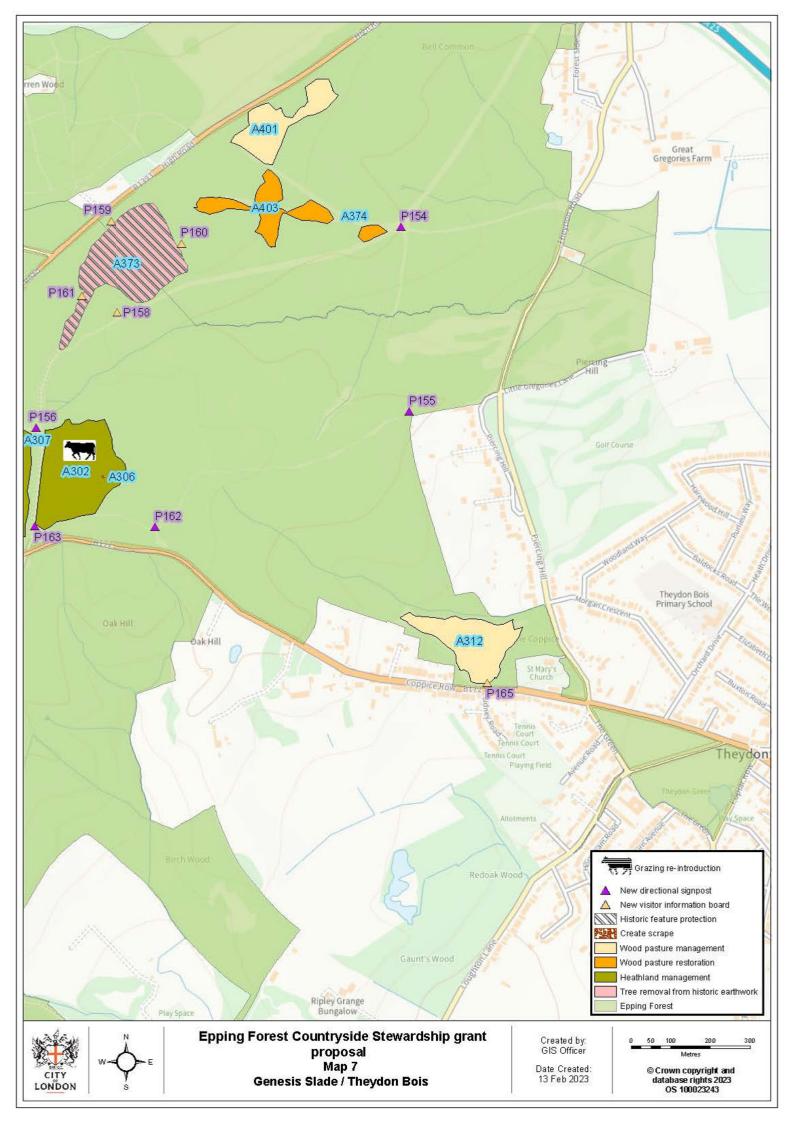




Aerial photo of Theydon Plain in the late 1940s showing a larger area of grassland

(National Library of Scotland)

Theydon Plain in 2022



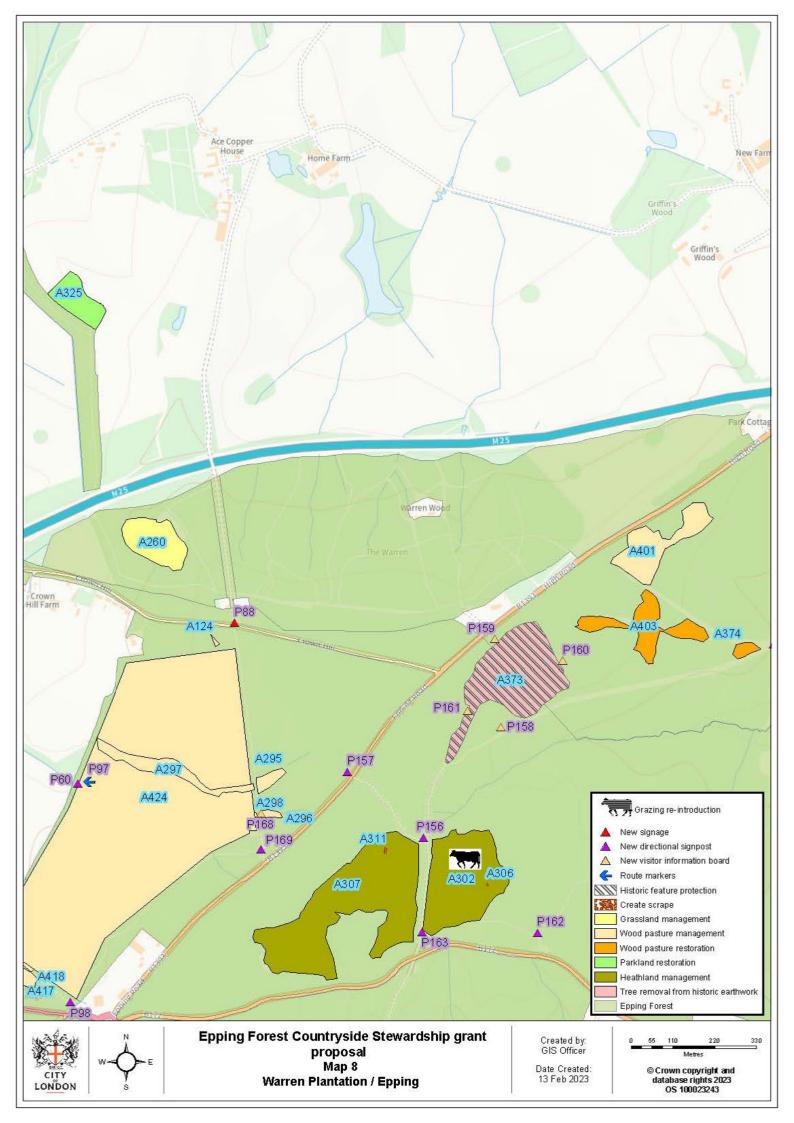
Deer Pond Field, Upshire

This part of Epping Forest was formerly part of Copped Hall and was incorporated into Epping Forest in 1993.

Deer Pond field (A260) is located in the western part of this area and has a good diversity of plant species. It has been managed by cutting every year and this is proposed to continue.

Overall, the aims for the proposals for this area are:

Maintain and ideally increase the diversity of plants in Deer Pond Field

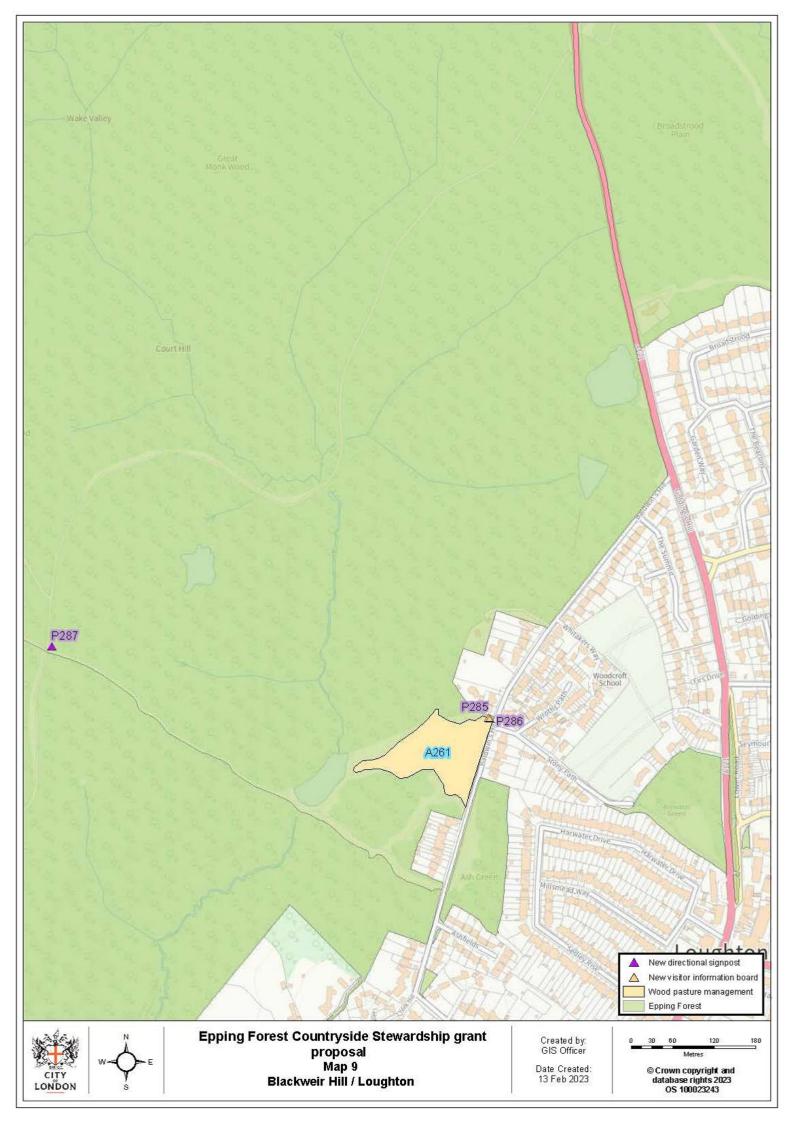


Baldwins Hill, Loughton

On the slopes of Baldwins Hill is the Baldwins Hill grassland (A261) which sits above Baldwins Pond. This is one of the small grasslands that are dotted around the Forest. It is smaller than it used to be and it is important to keep this grassland open to prevent it from being lost altogether by invading trees. It will continue to be mown annually.

A directional post and information boards will be installed to welcome visitors to the site and help them find their way.

- To keep the area of Baldwins Hill grassland open
- Welcome visitors and help them find their way around the site



Speakman's Pond, High Beach

Speakman's Pond (A36), along with all the other ponds in the Forest, is not a natural pond, being created in the 19th century. It is a shallow pond and, in the past, has often dried out. Despite that, it also used to support some scarce aquatic species for the Forest. Unfortunately, in the early 2000s an invasive nonnative plant, Crassula, became established and now covers the entire pond. This species is causing a major problem in water bodies across the country. It is a very difficult plant to control because it roots firmly into the soil but also breaks easily from which new plants can form from the fragments. Chemical control is not desirable due to the persistence of chemicals in the soil which could affect future plants and wildlife. One method to try and control the Crassula is to mechanically scrape all of it away along with a shallow depth of soil to ensure as much of the Crassula is removed.

In the 1990s, three small deeper holes were dug in the pond to try and allow some smaller areas of water to be retained all year round to benefit wildlife. These have become silted up over time, so alongside the work to remove the Crassula, these holes will be re-dug and joined up to provide a deeper area of water to act as wildlife refuge for insects and amphibians.

Crassula is a very small plant which creeps along the ground into small holes and crevices. Therefore, to maximise the chance of reducing this plant as much as possible, selected trees around the edge of the pond will be removed so the banks can be scraped as Crassula has grown in between the roots of these trees. The removal of these trees may also help to prevent the pond from drying out completely in the future because the trees take up water from the pond. An increase in sunlight to the pond will benefit some plants and wildlife.

After the initial clearance, regular removal of any Crassula regrowth will need to be done as it is nearly impossible to eradicate by physical methods, so the aim is to minimise any future spread as much as possible and allow space for other plants to recolonise the pond and the wildlife that relies on them.

Overall, the aims for the proposals for this area are:

- Restore the pond by removing the invasive Crassula plant species
- Decrease the risk of Crassula spreading to other ponds
- Increase the area of open water to allow aquatic plant species to re-establish
- Increase the area of suitable habitat for amphibians and aquatic insects

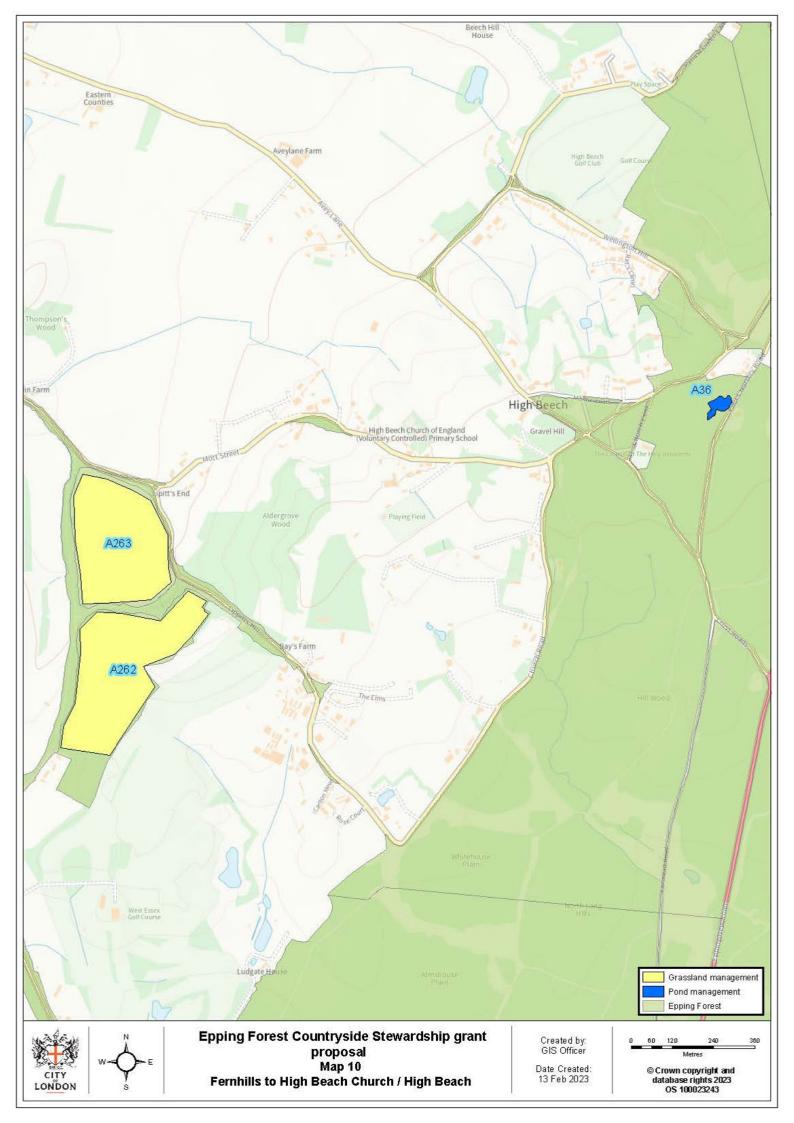
Trueloves and Fernhills, High Beach

These are two botanically interesting grasslands were added to Epping Forest in the 1990s. Trueloves (A263) lies at the bottom of Lippitt's Hill and is a naturally wetter grassland which contains a good diversity of wildflowers such as Fleabane, Ragged Robin, Black Knapweed and Ox-eye Daisy. The site is managed by a combination of cutting and grazing to encourage a diversity of plant species. Located on the more rural side of the Forest, the site is sometimes visited by Barn Owls and other birds of open grasslands and farmlands.

Fernhills (A262) is adjacent to Trueloves and is up the slope of Lippitt's Hill. Like Trueloves, the grassland here supports a good diversity of plants including species scarce in Essex such as Adder's Tongue fern. There is more scrub here which is valuable for birds, mammals and insects. There are also some large old trees within and around the site. This site is managed by a combination of cutting and grazing.

It is proposed to continue the management of Trueloves and Fernhills for the benefit of plant species as these two sites contain species not found elsewhere in the Forest or only one other Forest location.

- Continue to manage the site by cutting and grazing to encourage a diversity of plant species and the associated wildlife of open grasslands and mixed scrub
- Improve the condition of the habitats in these areas
- Encourage the spread of Epping Forest scarce species such as Fleabane, Ragged Robin, Black Knapweed and Ox-eye Daisy as well as grassland plants in general



Staples Hill and Woodbury Hollow, Loughton

Staples Hill is known as the last place in the Forest that pollarding took place before the Epping Forest Act came in and pollarding only resumed in the 1940s, although only temporarily. It has a mixture of the three main pollarded trees in Epping Forest: hornbeam, beech and oak.

Facing west is the steep slope of Woodbury Hollow grassland (A22) that is important for a small group of scarce plants which are now struggling to survive under the encroachment of competitive grasses, scrub and trees. It has been historically cleared of trees in the past which have regrown because the access to the site and the steepness of the slope make management very difficult. Cattle have grazed there in the last 10 years, but this is also made difficult for the same reasons.

It is proposed to restore a corridor (A26) of wood pasture on Staples Hill, this will reduce the shade to some of the veteran pollards and some young trees will be made into new pollards to become veterans of the future. This same corridor can be used by tractors to access Woodbury Hollow to manage the grassland in the long term which will hopefully allow the important plant species to increase. In addition, some young trees that are invading Woodbury Hollow from the edge will be removed to increase the size of the grassland as it used to be much larger, and scrub will be removed from the middle.

If possible, cattle grazing will be reintroduced at Woodbury Hollow.

- Continue to manage the site by cutting and grazing to encourage a diversity of plant species and associated wildlife of open grasslands
- Improve the condition of the habitats in these areas and make them better connected
- Increase the vitality and longevity of the veteran trees
- Create new pollards which will become veteran pollards of the future
- Increase the area of restored wood pasture and old grasslands
- Encourage the spread of Epping Forest scarce species such as Heather, Devil's Bit Scabious, Wood Anemone, and Cow-wheat as well as other grassland plants
- Increase the amount of deadwood habitat, thereby encouraging an increase in species that rely on dead wood



Barn Hoppitt and Whitehall Plain, Chingford

Nearly all of this compartment is former grazing plain, mostly in the form of open wood pasture, and has one the most important groups of ancient oak pollards within Epping Forest. Over time considerable invasion of younger trees and scrub has changed this once open wood pasture habitat into a more darkened closed-canopy habitat resulting in the loss of Forest floor plants. The most significant nature conservation feature of this compartment is the population of ancient oak pollards, all more than 500 years old. These important old trees have become overshaded by younger more vigorous trees which is negatively impacting on the health of these ancient oaks.

Between 2008 and 2018 the first phase of wood pasture restoration was completed which opened up many of these biodiverse rich trees and started sensitive tree pruning to prolong their lives. The second phase is now proposed (A264) which will continue this work to open up the area towards its once former open nature to increase light within the habitat. This will benefit not only the old trees but also the new pollards that will be created to become the veteran pollards of the future, as well as encourage the reestablishment of plants on the Forest floor. A new group of veteran trees will start to be pruned to improve their health and lifespan. By prolonging the lives of these old trees, this will give time for the new young pollards to develop the features that make pollards rich for biodiversity such as holes and bowls, natural splits and cracks all of which allow a range of different species such as birds, bats, insects and fungito live in and on these trees.

Scattered grasslands and glades (A265-7, A269-72) will be managed by cutting and grazing to keep these open, which are important for plants that grow in open grassland and wildlife that favour these open habitats. Many of these grasslands have gotten smaller over time so there will be selected tree removal to open them up again.

Alongside this, the recently reintroduced cattle grazing will continue to help develop the restoration of wood pasture and grasslands. The cattle lightly disturb the soil with their hooves which can encourage germination of plant species. They also leave dung which is highly valuable for insects, which birds, bats and mammals feed off. To allow continued grazing of the site, a new small cattle pen (P102) would be installed to ensure safe handling of the animals.

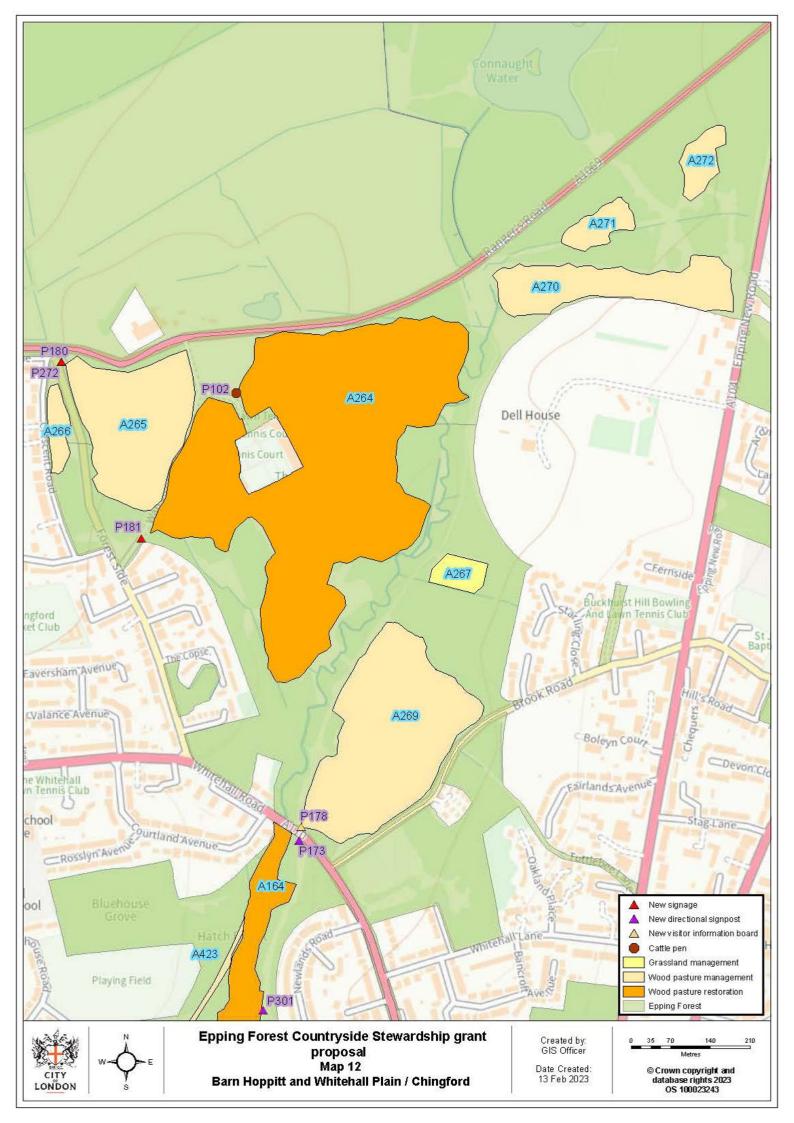
Through the work, there will be an increase in the amounts of valuable deadwood habitat on site which will support key insect and fungi species that are found in Barn Hoppitt. This is a site of key importance for the rare bracket fungus, Oak Polypore, which requires open wood pasture habitat with open-grown Oaks to allow this fungus to reproduce. Similarly, this restoration work should enhance conditions for the rare Zoned Rosette fungus another specialist of ancient trees in wood pasture which grows on the site.

It is hoped that creating more open conditions will allow existing flowering scrub, such as Hawthorn, Elder and Crab Apple, to thrive and hopefully seeds from these plants will germinate to form new scrub bushes. The flowering scrub are rich in pollen and nectar rich and also produce fruits in the autumn which help to support insects, birds and mammals.

Warren Pond has become shaded on its southern end and the open water habitat is being lost. Work will remove some of the adjacent trees to open up a little bit more of the pond, whilst retaining some of the scrub that grows in the water in the southern end as an adjacent habitat.

Directional posts and information boards will be installed to welcome visitors to the site and help them find their way.

- Improve the condition of the habitats in these areas and make them better connected
- Increase the vitality and longevity of the veteran trees
- Create new pollards which will become veteran pollards of the future
- Increase the area of restored wood pasture and old plains
- Keep the open glades and grasslands open
- Encourage an increase in flowering scrub
- Increase the amount of deadwood habitat, thereby encouraging an increase in dead wood species such as Stag Beetles and other species that rely on deadwood
- Encourage an increase in rare fungi associated with open wood pasture
- Create the conditions to promote an increase in biodiversity in the area
- Welcome visitors and help them find their way around the site



Hatch Forest & The Lops, Chingford

Hatch Forest is centred around the west side of the River Ching along which veteran hornbeam pollards line its banks. Over time more trees have grown up in between shading out both the pollards and the stream so that the bankside flora of Wood Anemones, Violets and Goldilocks have been shaded out and lost. The proposal is to gently open up the riversides to encourage bankside flora to grow again and give light to the hornbeam and oak pollards so they can increase in vitality (A164). A423 is a former trackway that will be opened up to allow vehicular access for this habitat management, and in so doing reopen this old route.

Some of the hornbeam pollards will receive work to stabilise them and lengthen their lives. In addition, new pollards will be made from young trees so they can become the old pollards of the future. It is hoped that there will be more wildlife using the river as a result.

Further south, The Lops (A273) has also seen a large expansion of tree cover with the corresponding loss of acid grassland that used to hold a diverse range of plant species not found in many other places in the Forest. These areas have some of the biggest anthills in the Forest and are now surrounded by young trees which will shade them out in time. However, because the trees are still young there are still many anthills that are not completely shaded out and very small areas of scarce plant species still hang on.

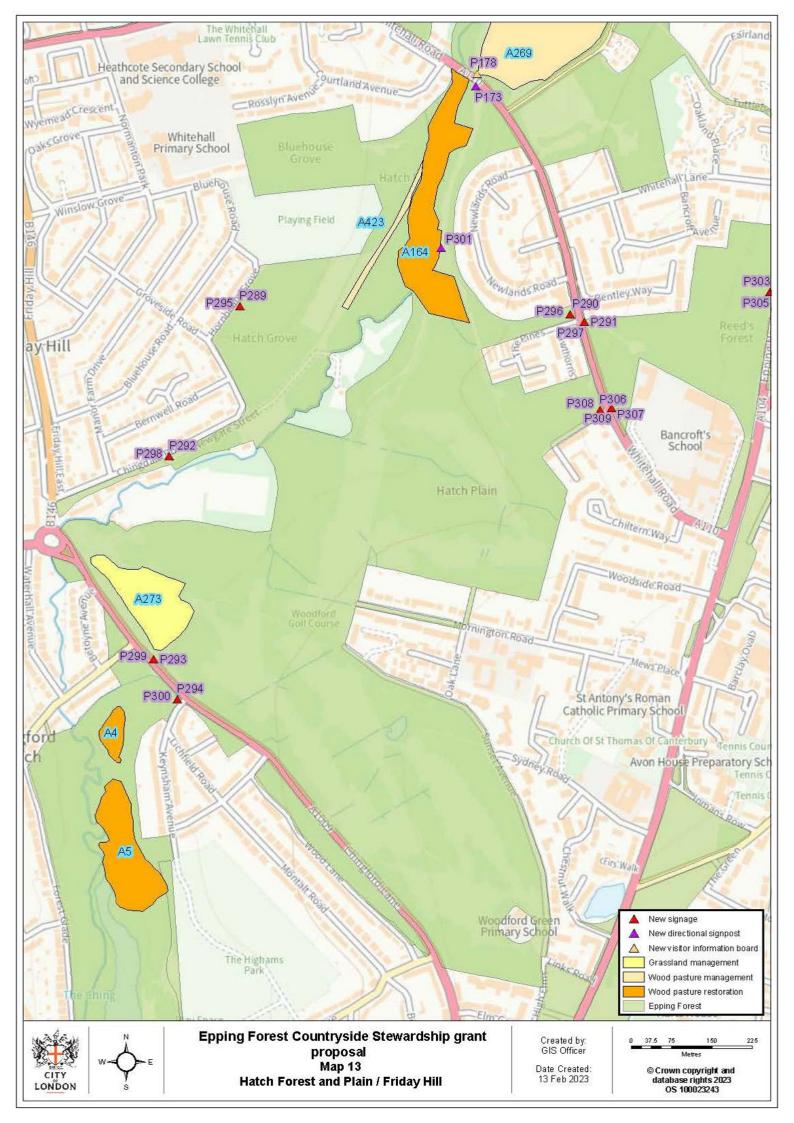
The proposal is to remove some of the young trees in one area that has the best surviving scarce flowers and anthills, and open up the grassland again. Some of the young trees will be left to screen against the view of the road and will become open grown trees in the future. All the Hawthorn and Crab Apple bushes will be kept as these will provide a valuable pollen and nectar source within the grassland which are valuable for wildlife.

Directional posts and information boards will be installed to welcome visitors to the site and help them find their way

- Improve the habitats in these areas acid grassland, riverside habitats
- Increase the area of restored wood pasture
- Increase the vitality and longevity of the veteran trees and create new pollards
- Increase the area of acid grassland and the number of live anthills
- Increase the populations of scarce plants
- Welcome visitors and help them find their way around the site



The Lops in the late 1940s showing a much larger The Lops in 2022 is a much smaller area of open grassland grassland (National Library of Scotland)



Rowan Trail Through Knighton Woods and Lords Bushes, Buckhurst Hill

The Rowan Trail (A55) is one of ten waymarked trails in Epping Forest www.cityoflondon.gov.uk/assets/Green-Spaces/rowan-trail.pdf

The Rowan Trail passes through two areas of Epping Forest, Knighton Wood and Lords Bushes.

Knighton Wood used to be owned by one of the first Verderers of Epping Forest and was returned to Epping Forest in 1930, though it had previously been part of Epping Forest. It is a woodland mostly with oak, hornbeam and beech, and a small number of veteran pollards, mainly hornbeams.

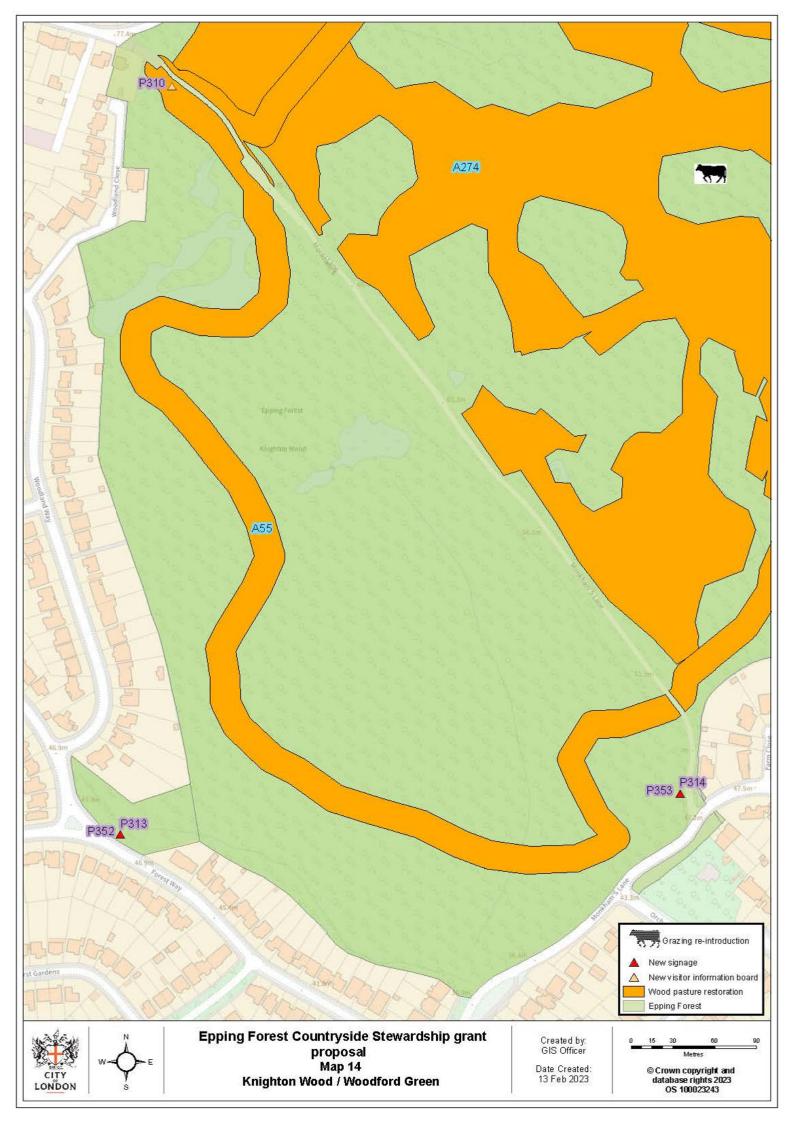
In contrast, Lords Bushes is a wood pasture site with many pollards of hornbeam and some of oak. Beech also grow here in some number, and are much more rare further south in the Forest. Lords Bushes has also had extensive infill of young trees and scrub over the 20th century which has shaded out the Forest floor plants and resulted in the deaths of old pollards.

By opening up along the Rowan Trail sunny corridors can be created along its length which will encourage insects and will therefore be beneficial for bats. It will also allow Forest floor plants to grow and increase the biodiversity of the site. Small glades will be linked up. Flowering scrub such as hawthorn will be prioritised for retention as a valuable pollen and nectar source which are valuable for wildlife.

Information boards will be installed to welcome visitors to the site and help them find their way.

- Increase the area of open habitat which will encourage a greater diversity of plant and animal species
- Create new pollards
- Reduce shade around veteran trees and flowering scrub
- Open up the Rowan Trail for visitors
- Welcome visitors and help them find their way around the site





Lords Bushes, Buckhurst Hill

This area is an oak-hornbeam wood pasture with a smaller number of beech trees. There are hundreds of oak and hornbeam pollards including the named oak pollard, The Pulpit Oak. Over the 20th century the site became infilled with young trees and scrub shading out open glades, plants such as heather and gorse, and surrounding the veteran pollards casting them into dense shade. This caused the death of many pollards. Since the early 2000s work has been done in phases, focussing around the old pollards to restore the wood pasture of Lords Bushes by a careful reduction of selected trees. The old pollards that are in the darkest shade are carefully opened up in phases to prevent over-exposing the tree to sunlight too quickly. Some trees have received tree surgery to stabilise their canopies and reinvigorate them to produce new growth. The old pathways that had become very narrow and shaded have been opened up to form sunny rides and the whole site is becoming connected again through these open pathways and glades which allow wildlife to move easily about. Plants on the Forest floor easily re-establish here but they have to be regularly managed to keep them open.

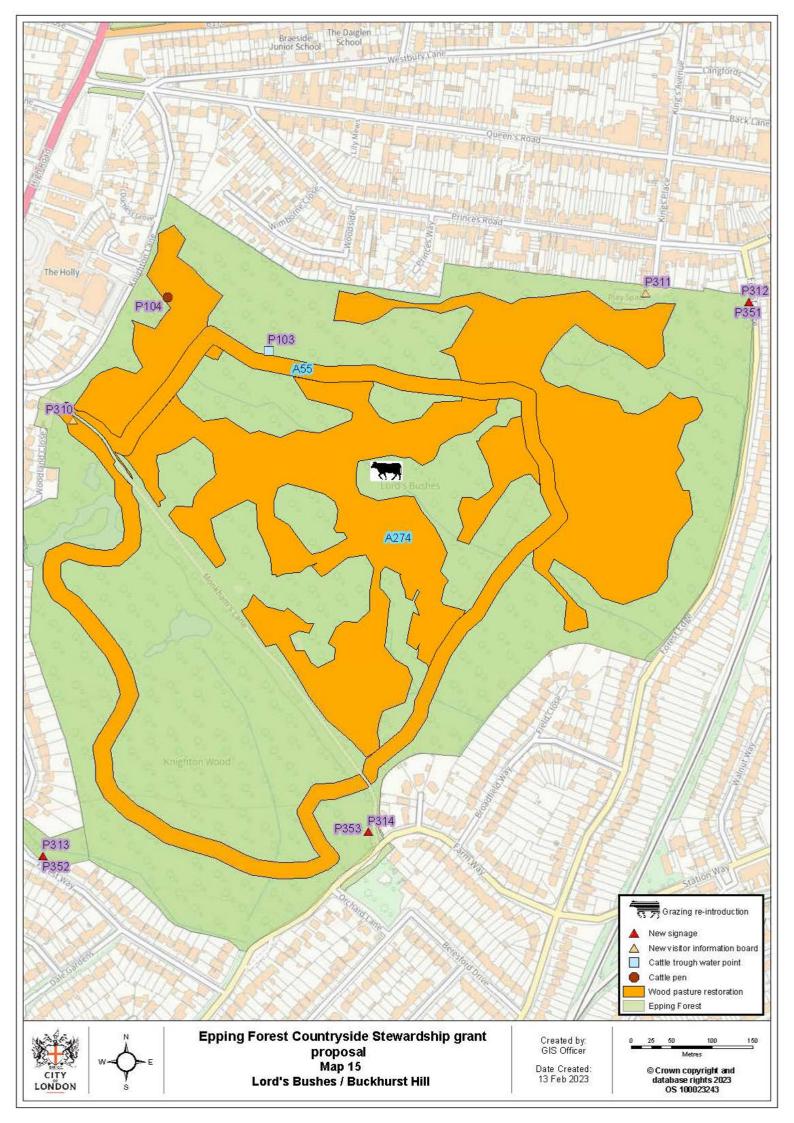
The proposals for this next phase of wood pasture restoration are to continue to carefully open up more areas to expand glades and release more veteran pollards from shade (A274). Some veteran pollards will be re-pollarded to keep them in the pollarding cycle, which can help to increase their lifespan, and some veteran pollards will receive more careful pruning. In addition, new pollards will be created to become veterans of the future. To help increase the light levels further, some non-pollarded trees will have their canopies reduced so they do not cast as much shade but are able to still grow.

The ponds will be opened up to reduce shade and will help to keep the ponds in good condition by promoting pond plants and encouraging wildlife.

This new phase of wood pasture restoration would also see a reintroduction of cattle grazing. The phases of wood pasture restoration until now have restored enough ground flora that will support a small number of cattle to graze the site. To allow grazing of the site, a couple of cattle troughs (P103) would need to be installed as well as a small new cattle pen (P104) to ensure safe handling of the animals. The cattle will be contained within the site using GPS collars, which is used in many other parts of the Forest. The cattle will help to manage the wood pasture and open habitats and also increase the biodiversity of the site through the action of grazing and their dung which is rich food for insects. Birds, mammals and bats feed on these insects, so there is a wider wildlife benefit.

Information board will be installed to welcome visitors to the site and help them find their way.

- Improve the habitats on the site wood pasture and glades
- Increase the area of restored wood pasture
- Increase the health of the veteran pollards
- Create new pollards to become veterans of the future
- Encourage an increase in biodiversity of the site, particularly Stag Beetles, rare fungi and other insects associated with the veteran pollards
- Increase the size of the open habitats and make them better connected
- Reintroduce grazing to help increase the biodiversity of the site
- Welcome visitors and help them find their way around the site



Highams Park & Oak Hill - Highams Park & Woodford

Highams Park is an oak-hornbeam wood pasture, the greatest number of veteran pollards are found at the northern end. Bluebells are managing to hang on here but because of the density of young trees there is not much ground flora of interest because it has been lost because of their shade. The young trees also shade out the flowering scrub, smaller Cherry trees and Honeysuckle.

A couple of areas will be opened up as part of wood pasture restoration (A4, A5) which will release the veteran trees from shade and encourage Forest floor plants to re-establish.

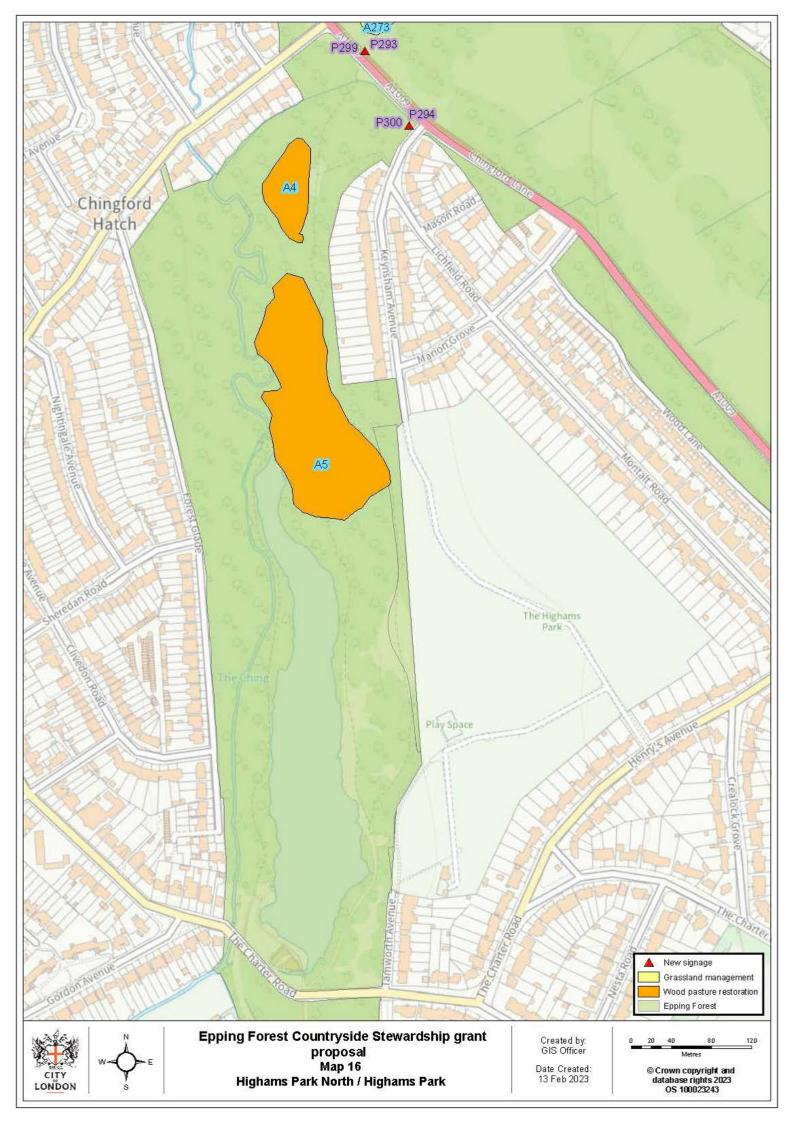
South of this area is an area of acid grassland and oak-hornbeam wood pasture with scattered ponds that sits between Woodford New Road and Oak Hill. There are a small number of veteran pollards as well as some gorse on the edge of the acid grassland. The ponds have become heavily shaded and the reeds have grown to fill in much of the ponds.

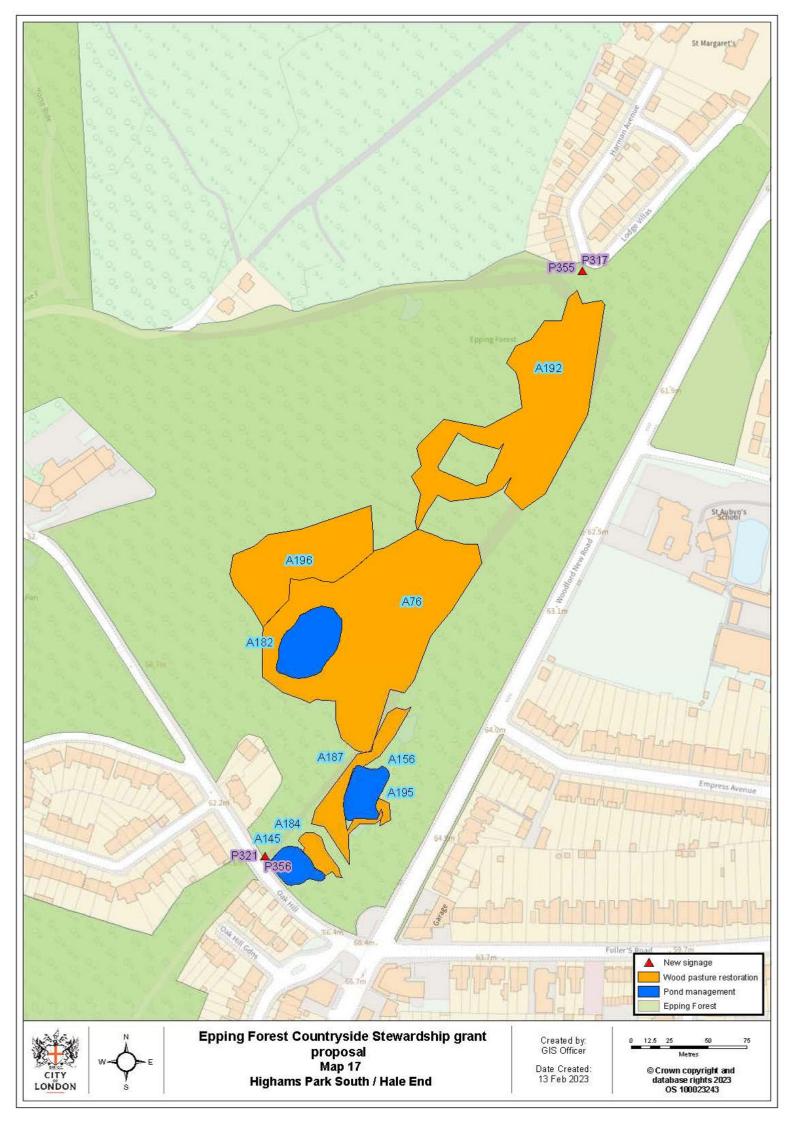
The habitat will benefit from opening up around the ponds and the pollards, as well as expanding the area of acid grassland back towards its former extent (A76, A156, A184, A187, A192, A196). The ponds (A145, A182, A195) used to have a variety of water plants which have mostly been lost and reducing the density of reeds will create space for other plants to expand and improve the habitats for dragonflies and amphibians. Some new pollards would be made. There are a small number of anthills on the edge of the grassland that can be opened up around and released from shade.

Welcome signs will be installed to welcome visitors to the site and help them find their way.

Highams Park Lake is one of Epping Forest's largest waterbodies. It is very popular with visitors and the footfall around the lake causes some of the paths to be very muddy in places. Along the eastern side of the lake from Chingford Lane down to The Charter Road a new surfaced path will be installed to provide an all-weather path.

- Improve the condition of the habitats on the site wood pasture, acid grassland and ponds
- Increase the size of these habitats and make them better connected
- Increase the area of restored wood pasture
- Increase the health of the veteran pollards
- Create new pollards to become veterans of the future
- Encourage an increase in biodiversity of the site and encourage Forest floor plants to re-establish
- Welcome visitors and help them find their way around the site





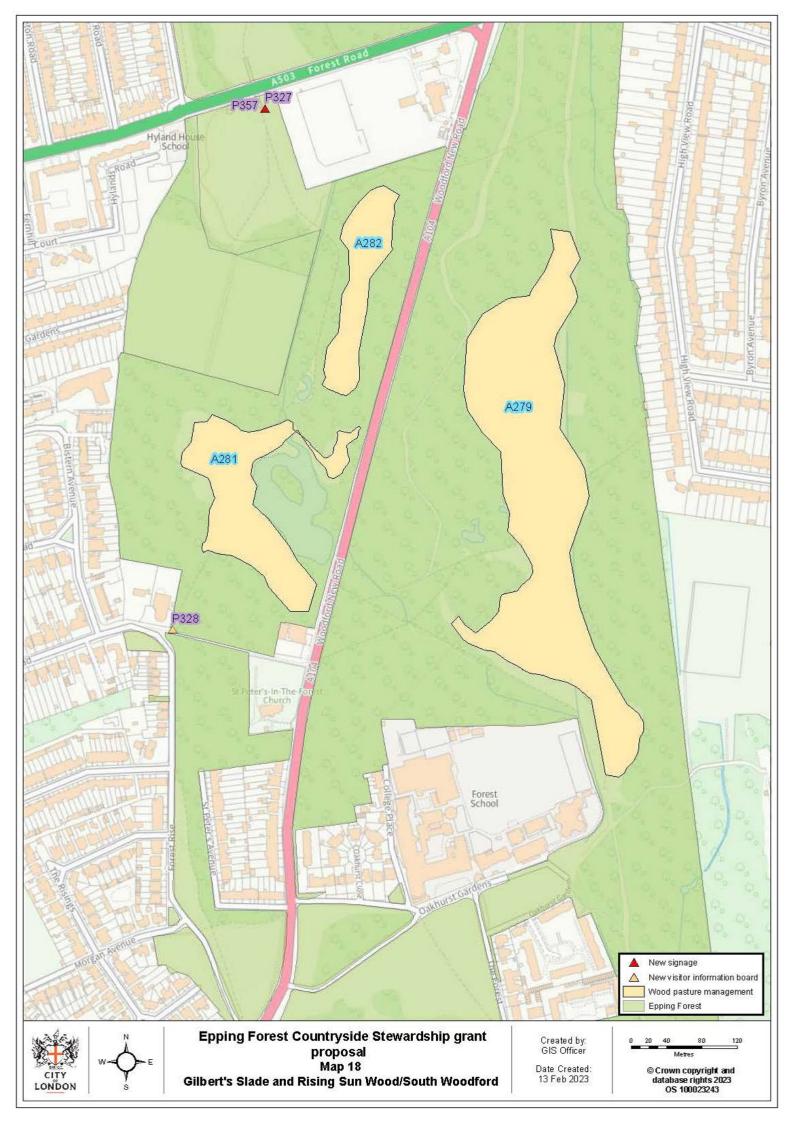
Gilberts Slade and Canada Plain, Snaresbrook/Walthamstow

These two sites sit either side of Woodford New Road but they are the same habitat type – oak-hornbeam wood pasture with acid grassland glades (Gilberts Slade A279; Canada Plain A281-2). There are a high number of hornbeam pollards and the grassland still contains good acid grassland species such as Sheep's Sorrel and Cow-wheat and less common grasses.

These sites have had a first phase of wood pasture restoration between 2008 and 2018 which opened up around the hornbeam pollards and expanded the grassland. The proposed work is to continue to maintain the open areas by cutting. Some of the hornbeam pollards that have not been pollarded since the 19th century will have their canopies reduced in height to increase the light and increase the trees' stability to prevent them from collapsing. New pollards will be made from young trees to become veteran pollards of the future.

A welcome sign and an information board will be installed to welcome visitors to the site and help them find their way.

- Improve the condition of the habitats on the site wood pasture and acid grassland
- Increase the size of these habitats and make them better connected
- Increase the area of restored wood pasture
- Increase the health of the veteran pollards
- Create new pollards to become veterans of the future
- Encourage an increase in biodiversity of the site and encourage Forest floor plants to re-establish
- Welcome visitors and help them find their way around the site



Leyton flats, Snaresbrook & Walthamstow

This is a site of mixed habitats with wide open areas of acid grassland, dense gorse scrub, a mixture of old and young trees, waterbodies and ditches. It is one of the most visited places in the Forest.

There is a lot of work proposed on this site which aims to significantly improve the condition of the habitats and encourage more biodiversity.

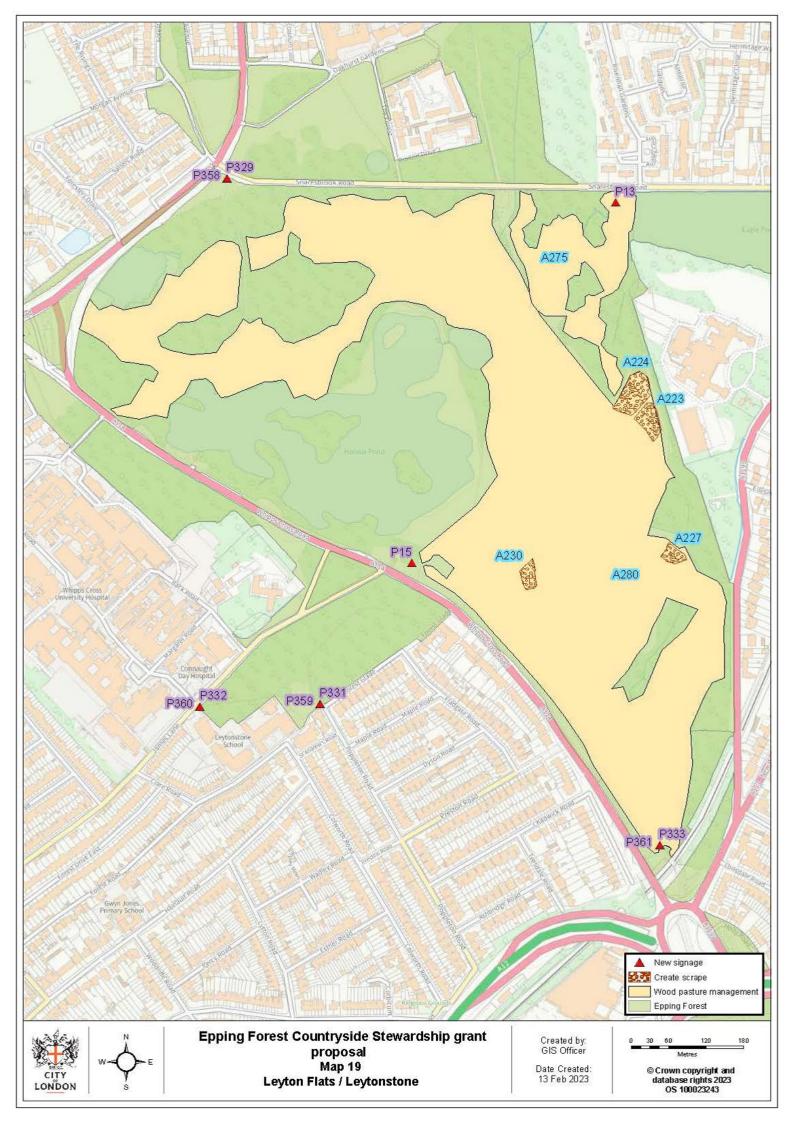
Firstly, at the northern end of the site (north of 280), between the north of the Hollow Pond and Eagle Pond, the woodland will be opened up to restore its former open character. There are a small number of oak pollards and some large non-pollarded oaks. They will benefit from the increase in light which will hopefully improve their health. It is hoped that the Forest floor plants will re-establish in these areas and some flowering scrub will increase. Some of the young trees will be made into new pollards that will become future veteran trees.

Around the edges of the acid grassland across the site there will be selected tree removal to restore the acid grassland and give space for particular plant species to expand (central and south A280). Despite being one of the most visited sites, the grassland still contains a good variety of acid grassland and heathy plants which are worth preserving. In order to promote these special plants, small areas of competitive grasses will be removed to expose the seedbank of these species and encourage their germination. It is hoped that species such as Heather and some less common grass and rushes species will return (A223, A224, A227, A230). The remainder of the grassland (within A280) will continue to be managed on a regime to promote conservation.

The more open aspect of the habitats will make it easier to manage this site in the future. These proposals would be a major step in working to improve the condition of the habitats on this site and hopefully increase its biodiversity.

Welcome signs will be installed to welcome visitors to the site and help them find their way.

- Improve the condition of the habitats particularly the acid grassland
- Start wood pasture restoration at the northern end of this site
- Improve the health of veteran pollards
- Create new pollards to become the veterans of the future
- Expand the area of acid grassland
- Take specific measures to promote the recolonisation of acid grassland plant species
- Increase the biodiversity of the site
- Welcome visitors and help them find their way around the site



Wanstead Flats, Leytonstone & Aldersbrook

Similar to Leyton Flats, Wanstead Flats has even larger areas of acid grassland with some valuable scrub. As a result, the area is important for birds and insects and it manages to retain some good patches of acid grassland species such as Heather, Creeping Willow and less common grasses. This site has been grassland probably for over a thousand years, and therefore it is important to look after these ancient habitats.

Work at this site will mainly focus on the grassland (A27, A28, A283, A284) with a bespoke cutting programme for conservation management, this will include a combination of annual cutting or cutting patches every few years. This will help preserve the grassland structure of long and short grass that promotes a greater diversity of wildlife.

The site has had a number of wildfires in recent years therefore, sensitive management of the scrub habitat is required to strike a good balance between keeping some scrub habitat that is valuable for wildlife and having a large amount of scrub that would be extra fuel in a wildfire.

One of the notable species of the site are the Skylarks which are only found in this part of the Forest, close to London. They need large open grasslands and also are very sensitive to being disturbed. In recent years a fence has been put around their core breeding area, and this may be replaced with a permanent fence, possibly covering a different area.

Welcome signs and information board will be installed to welcome visitors to the site and help them find their way.

- Continue to manage the large open acid grassland primarily for the site's wildlife
- Balance conservation management and management to reduce the occurrence of wildfires
- Protect the Skylark population from disturbance and manage the grassland to increase their population
- Welcome visitors and help them find their way around the site

