

Path Management

Planning and Development Note

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Path Management

PLANNING AND DEVELOPMENT NOTE

INTRODUCTION

Forest Operations Planning and Development Notes (PDN) aim to audit and collate the City of London (CoL)'s organisational and health and safety risk management issues for key activities, alongside other management considerations, to give an overview of current practice and outline longer term plans. The information gathered in each report will be used by CoL to prioritise work and spending, in order to ensure firstly that the CoL's legal obligations are met, and secondly that remaining resources are used in an efficient manner.

Each PDN will aim to follow the same structure, outlined below:

- Background – a brief description of the activity being covered;
- Existing Management Program – A summary of the nature and scale of the activity covered;
- Risk Management Issues – a list of identified operational and health and safety risk management issues for the site;
- Management Considerations – a list of identified management considerations for the activity;
- Management Strategy – a summary of the key operational objectives for the activity;
- Outline Management Program – a summary of the key management actions identified with anticipated timelines for completion;
- External Operational Stakeholders – a list of external stakeholders who have an operational input to and who have been consulted as part of the compilation of the PDN;
- Appendices.

BACKGROUND

Epping Forest and the Buffer Lands stretch for over 19km (12 miles) from East London into south-west Essex. Much of the Epping Forest area (2,469 ha) is a mixture of ancient woodland, heaths, bogs, ponds and grassy plain, while the Buffer Lands is mainly agricultural grassland. Overall, the land is informal and predominantly semi-natural countryside with around a third designated as a Site of Special Scientific (SSSI) and/or Special Area of Conservation (SAC).

The 1878 Epping Forest Act charges the Conservators of Epping Forest with the responsibility of preserving Epping Forest as an open space for the recreation and enjoyment of the public forever¹. As lifestyles have changed over the decades so has the nature of the public's recreational choices. For many years the Forest was the favourite day out destination for people from the east end of London. Charabancs and coaches would bring thousands to visit the 'retreats' and various entertainments held in the Forest. Today, many people value the Forest more as a place to enjoy a semi-wilderness through walking, running, cycling and horse-riding.

People are permitted to access the Forest and Buffer lands on foot, cycle or horseback only, with the following conditions applying:

Pedestrians: Visitors on foot have the right to access all areas of Epping Forest at any time of the day. Buffer Land access is permitted along Public Rights of Way (PRoW) and on Permissive Open Access sites (Table 1) and permissive routes.

Cycling: Cycling is permitted throughout the Forest with the exception of the Scheduled Ancient Monuments of Loughton Camp, Ambresbury Banks, Pole Hill, along Loughton Brook RIGS site, around Connaught Water and on the Easy Access trails. Wanstead Park has a defined cycle route with no cycling permitted elsewhere in the park and cycling is only allowed on the Buffer Lands along Public and permissive bridleways.

Horse riding: Horse riding is permitted throughout the Forest, with the exception of out-of-bounds areas marked on the horse-riding booklet/guide (including the SAC heathlands) on payment of an annual licence. In the winter months access is limited to the surfaced ride network only. On the Buffer Land riding is on designated public and permissive bridleways only.

Table 1: Permissive Open Access sites, Epping Forest Buffer Lands

SITE NAME	LOCATION	AREA (ha)
Warlies Park	Upshire	116
Copped Hall Park and Ravensers	Upshire	97.1
Swaines Green	Epping	5.4
Coopersale	Epping	13.5
Birch Hall Fields	Theydon Bois	6.1
North Farm	Loughton	23.1
Woodredon Estate	Upshire	30.6
Monkhams	Aimes Green	16.9

¹ Queen Victoria dedicated Epping Forest in 1878

The Conservators' access policy is currently to encourage and facilitate the use of the Forest and Buffer Lands in such ways that do not cause damage, compromise the natural aspect, harm wildlife or interfere with other users².

Section 7(3.) of the Epping Forest Act 1878 places a statutory duty on the City of London Corporation, acting as the Conservators of Epping Forest, to '*at all times as far as possible preserve the natural aspect of the Forest...*'. The 'natural aspect' is not defined within the Epping Forest Act, however, in the context of Epping Forest, Thomson (2017)³ concludes the natural aspect represents a particular appreciation of the wildness of nature, while at the same time embracing the rural traditional landscape management through 'peasant' pursuits such as grazing, pollarding, which in turn is framed by sparse rural features such as earthworks, ruins, bridges and mills.

The current path network has developed over time, with individual routes arising from a range of initial objectives, such as improving the connectivity of the PRoW on the Buffer Lands or providing all weather routes in the Forest. Management of the different path types has in practice over the years been combined under the following principles:

- *Natural paths*: Paths with minimal intervention to maintain their accessibility. In most cases, this path type best meets biodiversity and heritage obligations;
- *All-weather routes*: Surfaced paths responding to difficult ground conditions are appropriate on routes across the Forest and Buffer Lands where there is an approved strategic management or public access need. The maintenance obligations associated with the all-weather route network influences the Charitable trust's ability to develop further all-weather provision;
- *'All-ability' paths*: Installed at locations where there is a significant need for higher accessibility standard paths. The creation and maintenance costs of these significantly restricts the provision of these highly accessible all-weather routes;

The Access Policy for Epping Forest is being revised and due for completion in 2020/21. This Path Management PDN anticipates the Sustainable Visitor Strategy and sets out to first describe the nature and extent of the path network across Epping Forest and the Buffer Lands and second, identify management standards and impacting considerations for the different paths types. Finally a management strategy to ensure stated standards will be met is outlined.

² Epping Forest 2010: The Management Plan for Epping Forest 2004 to 2010. (Page 77)

³ Paul Thomson (2017) Unpublished note on 'Defining the 'Natural Aspect''

EXISTING MANAGEMENT CONTEXT

Path Network

There are 41 km of public rights of way (PRoW) in Epping Forest and the Buffer Lands. In addition, there are around 81 km of paths designated by the City of London as managed routes suitable for horse riding, cycling and walking, with some routes seasonally unavailable for riding and cycling. Across the Forest there is an unquantified network of unofficial paths. A review of the path network in 2019 (Table 2) identified 198 km of paths where the City of London has a management responsibility.

Table 2: Forest and Buffer Land path types and managed length

Path Type	Description	Managed Length (km)
Official All-weather	Paths identified on the Official Epping Forest map as all-weather paths for use by horse riders, cyclists and pedestrians.	36
Official Natural	Paths identified on the Official Epping Forest map as natural paths for use by horse riders, cyclists and pedestrians, usually seasonally closed to horse riders and cyclists.	45
Public Right of Way (PRoW)	Paths identified on the definitive map that the public have a legally protected right to pass and re-pass. Depending on the specific path's status people will be able to access on foot, cycle or horseback.	41
Easy Access Trail	Four trails promoted as 'Easy Access' with a level, firm, non-slip surface and regular benches and passing places for wheelchairs. Located High Beach, Connaught Water, Knighton Wood and Jubilee Pond. Cycling and horse riding are not allowed.	3.1
Informal Path	These paths have been identified using the Strava App which collects geolocational data from users who are often cyclists and runners. This shows where recreation is occurring. Further routes may be added to the Informal Path network if local information warrants the path's inclusion.	38
Waymarked Trail	Nine waymarked circular paths established across Epping Forest and the Buffer Lands. Each trail follows official, informal and desire paths as well as Public Rights of Way (PRoW) with some on PRoW on land not managed by the City of London.	38.5
Buffer Land Permissive bridlepath	Permissive bridlepaths agreed by the Conservators to complement and extend access across the Buffer Lands.	5.6
Buffer Land Permissive path	Permissive footpaths agreed by the Conservators to complement and extend footpath access across the Buffer Lands.	2
Third Party paths	Paths on COL owned land but where the management responsibility is with a third party through a management agreement or License.	TBC
Desire Path	Visitor defined routes where the use as indicated on the user defined Strava App indicates a lower level of use. No active management.	0

A comprehensive review of the path network in 2019 expanded the remit of previous path surveys to include the Public Rights of Way paths, Waymarked and Easy Access trails, as well as capturing some other *defacto* official natural and all-weather paths. Sketch maps of the path network by compartment are available separately to this report with an example given in Appendix One.

PATH MANAGEMENT PROGRAMME

Existing management programme

The annual management of the paths costs *circa*. £105,000 with staff costs representing 88% of this amount. Management is currently based around reactive maintenance, responding to encroaching vegetation and path surface and drainage concerns. Annually the local riding forum feeds in access issues and these, along with staff identified tasks, form the basis of the current annual path works program.

Planned cutting of path verges is undertaken each year with the work fitted in around other tasks and the extent completed varying with the time available. The 2019 audit of the Official path network identified 61.3km of paths where the edge vegetation was restricting permissible access upon the path either by constricting the path width or the accessible height of the path (just over 30% of the 198km of paths in Epping Forest). In addition 25.5 km of rides were identified that had drainage or path surfacing problems. It is evident that the current maintenance regime is not identifying activity needs before problems arise and the accessibility of some paths is declining.

Implications of the 2019 path audit

Notable outcomes of the 2019 path audit are that the maintainable path network is significantly greater than previously considered and that its condition is showing the effect of under maintenance. This highlights a need to reassess the largely reactive approach to path maintenance currently adopted. In addition to any aspirational objectives to be identified in the Access Policy, a path management programme at Epping Forest requires the following four objectives to be achieved as a minimum:

- Safe: The path network is maintained in a fit condition appropriate for the type of use it will get;
- Accessible: It is accessible for users and adopts the principle of Least Restrictive Access;
- Appropriate: It pays close regard to the importance of maintaining the 'Natural Aspect' of the Forest, including features of biodiversity, historic, traditional or archaeological interest; and,
- Recorded: Management and monitoring work is recorded in an accessible format for future reference.

A Safe Path Network

The legal obligations for managing visitor safety are clear with regards to users of the Public Right of Way network. The Local Authority is usually responsible for ensuring the path surface, including any bridges, is in a safe condition and fit for the type of traffic which is ordinarily expected to use it. Any stile, gate or other similar structure across a footpath belongs to the landowner and must be maintained by the landowner in a safe condition, and to the standard of repair required to prevent unreasonable interference with the rights of persons using the path.

Most routes in the Forest (and some on the Buffer Lands) are not Public Rights of Way. As a Public Open Space under the Open Spaces Act 1906, the City of London is tasked to ‘maintain (Epping Forest) and keep the open space in a good and decent state,⁴’.

As a guide to what “*a good and decent state*” means the Countryside and Rights of Way Act 2000 (CRoW Act 2000) gives an indication of potentially relevant considerations when managing Epping Forest’s permissive access land and paths. Based on the CRoW Act 2000, two guiding principles for managing public safety on the path network can be confirmed:

- Access infrastructures need to be installed and maintained in a fit condition appropriate for the type of use it will get, however;
- People accessing the Forest ought not to place an undue burden (whether financial or otherwise) on the COL.

Note: These principles provide a baseline from which to judge potential path management responsibilities; however, there may be a need for enhanced care with some paths, which individual path management plans should identify.

An Accessible Path Network

Overall, Epping Forest is a semi-wildland to wildland environment as outlined in the BT Countryside for All standard (Appendix Two and see ‘An Appropriate Path Network’ below). In approaching the accessibility of Epping Forest, the principle of the ‘Least Restrictive Access (LRA)’ will be adopted to undertake the accessibility review⁵. The LRA process is helpful where standards of path provision need to vary for a range of reasons and provides a basis for ensuring that individual path standards are as good as they can be for as wide a range of people as possible and catering for as great a range of different disability types as feasible.

Clay soils prone to waterlogging and poaching cover a large extent of the Forest, with some main access routes seasonally difficult or impossible to access by most users, including those on foot. A network of all-weather paths is maintained to facilitate year-round foot, cycle and horseback access to the Forest. There are also several promoted routes in the Forest designed to encourage and widen public access. These routes are intended to be managed to a higher accessibility standard than the LRA and all-weather paths options.

There are important gaps in the all-weather path network with, for example, key attractions such as The View Visitor Centre having no all-weather path access, leading to poor accessibility in the winter months for all users travelling across Forest land and poor access for some disabled users year round. The southern half of the Forest typically makes up the largest proportion of the public open space available to residents in these areas. Poor year-round Forest accessibility in some of these areas has the potential to adversely impact a large number of users with few alternative green space options.

⁴ Open Spaces Act 1906 (Para 10.b)

⁵ Fieldfare Trust (Undated) *Least Restrictive Access Guidelines* (http://www.eau.ee/~bell/Recreation_course%202008-9/Countryside%20for%20All/Least%20Restrictive%20Access%20Guidelines.pdf) – Fieldfare Trust defunct as of 2018 and these guidelines now taken up by Pathsforall.org.uk

An Appropriate Path Network

The Conservators' duty to maintain the 'natural aspect' (and the other parts of Section 7(3) which include the unconditional protection of the turf and herbage) and the designation of a large part of the Forest as a SSSI/SAC or Scheduled Ancient Monument (SAM) introduces several design tests for any constructed path. By its nature, constructing a new path introduces a non-natural feature and the process of construction and the materials used will lead to environmental changes. These changes can be beneficial where, for example, historically people have created a wide and badly poached area across muddy clay soils, and the construction of an all-weather surface channels visitors onto a narrowly defined path, allowing the ground either side of the path to regenerate undisturbed. Negative impacts may be outweighed by wider benefits achieved such as improved access to areas of public interest or improved accessibility for disabled users. In planning the construction of new or the physical upgrading of existing paths, a simple environmental appraisal (Appendix Three) of the proposal will be prepared, appropriate for the scale of the project and used to aid decision making.

The unplanned development of some informal paths can also have a harmful impact, requiring a management response, especially in areas with a statutory designation such as a SAC/SSSI/SAM. The SAC Site Improvement Plan (SIP v1.1 2016, Natural England) formalises a management response framework and this current Planning & Development Note (PDN) will form an important contribution to Action 3 of the SIP (2016) which states: "identify key areas that are subject to recreational impacts". Where such potential concerns are identified, the simple environmental appraisal process outlined in Appendix Three will be followed in assessing the informal path and identifying management needs and any environmental constraints.

Recording Management and Monitoring Actions

Path condition monitoring has been a reactive process based on the feedback from Keeper staff regularly accessing the Forest and reporting problems as they are observed. Such a reactive process tends to identify problems at a late stage when resolving them can be more costly and the impact on visitors can be more prolonged. To address these concerns and to meet the need to respond to an increasingly challenging public liability claims environment from users, there is a need for a formal planned monitoring regime. An important benefit of such a process will be improved management information on the scope, scale and cost of ongoing maintenance programmes. Records from this system will need to be maintained and easily accessible to COL Management for at least ten years.

Revised Management Process

Reactive management processes are appropriate for *ad hoc* small scale maintenance operations; however, to achieve the above four objectives on a path network with a much-increased length of maintainable paths requires a planned management process. It is proposed through this PDN that a revised planned path management process be adopted at Epping Forest. The process would comprise the following elements:

- Path condition monitoring: The condition of paths will be subject to periodic monitoring. The frequency of monitoring will vary with the path type and reflect the level of path use (Table 3), with the features recorded as part of the survey given in Appendix Four. Safety and drainage works required will be identified through this process;
- Vegetation management: The management of the adjacent vegetation will be undertaken as part of an annual planned maintenance programme. In the first instance this will be based on the 2019 Path Audit, however, it will require a further period of development to better

align the maintenance works to the speed of vegetation regrowth and the need for ‘tidiness’, based on path usage. Reference will also need to be made of any environmental constraints and reference sources such as the Forest’s Scarce Species Register.

- Capital works programme: An annual work programme based on the outcome of the path condition monitoring. Works will principally be drainage and safety related works.

Standard specifications in Appendix Five give the design standard for the main path types and the maintenance work normally required to achieve these standards. With the shift from reactive to planned management processes, not all paths can be assumed to meet the standard specification and the proposed management programme over a ten year period should be seen as a transition process, with a greater need for capital works in the first 10 years to bring paths up to the required standards. At the end of this 10 year process the path network should be fully audited in the expectation that it will be broadly compliant; it should be possible at that point to quantify the annual ongoing maintenance programme for normal ‘wear and tear’ works.

Table 3: Proposed path condition monitoring frequencies

Path Type	Managed Length (km)	Monitoring Frequency (years)	Approximate annual survey (km)
Official All-weather	36	5	7.2
Official Natural	45	10	4.5
Public Right of Way (PRoW)	41	10	4.1
Easy Access Trail	3.1	1	3.1
Informal Path	38	Reactive management only	
Waymarked Trail	38.5	10	3.9
Buffer Land Permissive path	7.6	10	0.76
Third Party paths	TBC	10	???
Desire Path	0	No management	

PROPERTY MANAGEMENT CONTEXT

Tree Safety

- All Official paths, unsurfaced or surfaced, and waymarked trails have been categorised at least as Green Zones under the Tree Safety Policy. Green zones have a five-yearly tree safety assessment undertaken by trained Keeper staff. This is a separate survey to the path condition monitoring surveys outlined in Table 2 above.
 - *It is proposed that all Public Rights of Way across the Forest and Buffer Lands and Informal Paths in Wanstead Park are managed as Green zones. This will add 48.2 km to the total survey programme.*
- Easy Access paths are categorised as Red zones under the Tree Safety policy and independent arborists survey these for tree safety issues every year.

- Informal and Desire paths are currently not assessed for tree safety and under the current policy, tree safety issues raised would tend not to be responded to and the trees allowed to grow and develop naturally.
 - *It is proposed that for Informal Paths (excluding Wanstead Park), the tree safety response would be that a site visit will be undertaken in response to any reported problems by users to assess the situation.'*

Statutory Designations

A number of statutory designations apply to parts of Epping Forest and the Buffer Lands that also impact on the nature of the path provision in the Forest:

- Site of Special Scientific Interest (SSSI) and/or Special Area of Conservation (SAC). Under the legislation and regulations for these designations, and their associated assessment and consent procedures, the City of London (as competent authority and land manager) and Natural England (as statutory adviser and consenting body) need to assess the appropriateness (see above on *Appropriate Path Network*) of any path creation and management practice in relation to the conservation objectives and protected features for the sites
- Registered Parks and Garden (RPG)/ Scheduled Ancient Monuments (SAM): Wanstead Park and Copped Hall are Grade II* RPGs and Ambresbury Bank and Loughton Camp are SAMs. In both cases, Historic England and the Local Planning Authorities may need to authorize any path management proposals.

Infrastructure

- Access infrastructure: Policy and practice concerning individual access infrastructure types, eg bridges, boardwalks and culverts, is covered under the Forest Furniture Policy Development Note, which will be completed in 2021.
- Path surfacing: The type of path surfacing currently used is outlined in the Standard Specifications (Appendix 5). In summary, all-weather paths are based on using a MOT Type 1/Coxwell Self binding gravel base, or similar, with no wearing course. A wearing course of 5mm to dust granite (or similar) will be used on paths requiring a higher accessibility standard and smoother finish, eg Easy Access trails. On occasions, and by exception, where a coarse sub-base comes to the surface, all weather paths may have a wearing course added in selected locations.
 - *It is proposed that the path surface of each path section be defined as part of the next phase of the audit process.*
- Drainage: With predominantly clay soils, the presence of drainage and the condition of the drains are defining criteria for the condition of path surfaces. Drainage concerns have been identified in the 2019 audit for 25.5km of the official path network. The location of drains and associated infrastructure is only known at an indicative level, with an absence of any detailed engineering maps and descriptions, most of these having been installed many years ago.
 - *It is proposed that the path drainage network be mapped and recorded, including its condition, in the next phase of the audit process. The drainage maps will also give attention to the requirements of the water levels/soil moisture of adjacent habitats and the need to protect habitats from any contaminants flowing off the path surface as well as explore opportunities to divert water on to habitats that would benefit from rewetting.*
- Public liability: The relative responsibilities regarding public liability for public rights of way, formal and informal paths needs to be more clearly articulated in the future Paths Management Strategy

- *It is proposed that a review of the landowner duty of care responsibilities be undertaken.*

Signage

- Epping Forest waymarking: The COL has installed nine waymarked trails, which have been marked using a square sawn timber bollard⁶ with a route directional arrow. The bollards cost around £75 each for materials and installation, limiting the number that can be installed for cost reasons. Where routes overlap, two posts are required.
 - *It is proposed that we transition away from the use of individual timber bollards towards waymarker discs. This will allow for more frequent waymarking, improving the clarity of routes and will also allow much cheaper replacement.*
- Third party waymarking: Across the Forest there are a wide number of waymarked routes installed by third parties. These include:
 - Regional waymarked trails such as the London Loop;
 - Local waymarked trails installed by communities and local authorities and,
 - Public Rights of Way network waymarkers installed by the local authority.
- Finger post signage: In 2017 as part of helping visitors orientate themselves and navigate the Forest, a programme of finger post installation was initiated.
 - Funded under the Branching out Project in 2017 signs were installed in and around the visitor access hubs in the Forest at Chingford, High Beach and Wanstead Flats;
 - Funded through a City Bridge Trust (CBT) grant, the Highams Park Snedders (a local community group) installed 13 signs in and around the Highams Park area in 2019.
 - It is proposed that a phased programme of finger post sign installation be continued, based on developing local funding mechanisms such as the project by the Highams Park Snedders.

Sightlines

- Forest paths and car parks: Sight lines on main Forest paths (typically the Official all-weather and natural paths) and car parks that exit onto the public highway are maintained by the COL. 75 'areas' of the Forest with multiple sightlines are cut once a year in June/July with repeat cuts undertaken on a reactive basis.

Livestock

- From May to November, cattle are grazed on the Forest and Buffer Lands and may often be found on or alongside paths. Working practices concerning cattle and public access are in accordance with guidance set out in the Health Safety Executive's Agriculture Information Sheet No 17EW(rev1), with additional measures that take account of the Forest as an open space.

⁶ Waymarker type J2: *Square Sawn posts as described in the Forest Furniture PDN*

MANAGEMENT CONSIDERATIONS

Access

- The predominant clay soils across the Forest and Buffer lands are reflected in the condition of the official unsurfaced paths in many locations. During the 5-6 months in the winter important routes are very poor to impassable for most users and there are expanding zones of damaged ground as users seek to avoid wet areas through creating new routes. Seasonal inaccessibility is a particular concern in central and southern areas where the Forest can represent the only nearby open space for many people.
- The all-weather path network has developed in a piecemeal way with a large early emphasis on the provision of routes for horseriders and less recognition of the needs of other users.
- The forthcoming Sustainable Visitor Strategy will provide an assessment on the future shape of the access needs in the Forest reflecting the needs of users and the environmental constraints to be considered.

Property

- Third party routes: Third party agencies under specific agreements have upgraded paths across the Forest. Maintenance of these paths by the third party has however been mixed over the years, with complaints on their condition regularly directed to the City of London. Officers of the responsible organisations are frequently unaware of their liabilities when approached. The City of London's obligation under the Occupiers Liability Act 1957 indicates that management of these routes needs more active engagement with the third parties concerned, to ensure that these paths are appropriately maintained.
 - *It is proposed that a review of third-party routes is undertaken and working arrangements reconfirmed with the responsible organisations*

Ecological

- Paths and their verges can serve as wildlife corridors, facilitating the movement of species. Historically, they were a refuge for heathland and open ground species such as heather, cow-wheat and members of the Hawkweed (*Hieracium*) family and also woodland edge flora like violets and wood sorrel, which suffered from woodland encroachment following the decline of grazing. In developing path management plans, the opportunities to promote wildlife conservation benefits will be identified and developed.
- Constructed paths are an artificial intervention with both the act of construction and the materials used changing the local conditions. Equally, well used informal paths can bring about considerable negative impacts on a local scale, with the path 'spreading' in wet conditions as people look to avoid deep mud. Changes to natural drainage and soil pH are two of the more subtle but longer lasting impacts. The large extent of the path network is such that an understanding of the ecological impacts of the path system is presently largely anecdotal.
 - *To better plan the path development process in the longer term, an important need is to undertake an assessment of the ecological pressures to be faced with changing visitor needs and ecological opportunities that may arise.*

Landscape

- Green lanes/heritage routes: The Forest's path network is set within a historic landscape long inhabited, with man-made structures such as the Hillfort, Ambresbury Banks, dated to around 500BC. A number of paths, eg Organ and Mays Lanes, form part of what once were a network of long used routes such as drove roads.
 - *A separate Policy Development Note will be prepared concerning the management of these historic routes in 2021/22.*

Community

- The 12-mile elongated and largely linear nature of the Forest means that it passes through many communities; in many instances, it is the main public open space for the communities concerned. Access development to the Forest from these local communities has been largely organic and unplanned. Climate Change concerns and encouraging people to use their car less are raising the profile of the need to consider enhanced local access provision, to provide attractive access points for communities, closer to where they live and without the need to drive. This may also help to reduce pressure on increasingly busy car parks within the Forest.
 - *It is proposed that a new Local Forest Access Point be defined by way of a trial of concept and the outcome on car-based access assessed. This may include installation of small-scale Forest furniture (finger posts and location maps) and path management, with the aim of making these local access points more welcoming to local residents approaching on foot.*

Financial cost

- The revised management process represents a change in how path management activity is delivered at Epping Forest. A legacy of the former reactive process is that additional works will be required to ensure paths meet the relevant specification. It can also be anticipated that additional ongoing maintenance will be required to continue to ensure paths meet the design specification. An increasingly difficult financial environment will pose a constraining influence on achieving these changes.
- To identify where resources are best allocated in the first instance an access setting assessment was undertaken for each Forest compartment based on the BT Countryside for All standard (Appendix Two). Using the standard each Forest compartment was given one of four access categories: Red+, Red, Amber and Green where Red+ is a high access area and Green is a low access area remote from visitor facilities and less accessible for visitors. Table 4 identifies the core activities in these access zones
 - *It is proposed that initially path management is concentrated on the high access categories of Red+ and Red to develop a better understanding of the full impact of the changes in a phased way while ensuring the high-risk access areas are managed.*
 - *A review of the access zones should be undertaken for the end of the ten-year period eg it may be more appropriate to have a breakdown at sub-compartment level.*

Table 4: Path management activity in each access zone (km/yr)

Path Management Activity	Access Zone (km/year)			
	Red+	Red	Amber	Green
Path Management: Cut a 1.5m wide verge both sides of the path along mapped routes.	36	35	12	10
Path Management: Cut a 3m wide path along mapped routes.	22	15	6	10
Woody Vegetation Management: Woody vegetation and bramble cut to ensure the path meets the Forest standard	12	12	6	4

MANAGEMENT STRATEGY

Overall objectives for managing paths in Epping Forest:

1. To have an annual management programme that ensures we meet COL's requirements under the Highways Act (1980) and Epping Forest path management standard specifications.
2. To ensure the path network accessibility is appropriate for a semi-wildland to wildland environment and Special Area for Conservation
3. To integrate path management into wider operational habitat and landscape management; and,
4. To provide a path network in a safe condition and fit for the type of traffic which is ordinarily expected to use it.

OUTLINE MANAGEMENT PROGRAMME

Objective	Action	Timing (Years)
1/4	<i>Risk Monitoring:</i> Continue ongoing regular monitoring of tree safety along the path network as per Tree Safety Policy.	Ongoing
1/4	<i>Risk Monitoring:</i> Devise a risk monitoring system for path condition and undertake regular condition monitoring of the path network.	Ongoing
1	<i>Review: Undertake a review a review of the landowner duty of care responsibilities</i>	2026
2/3	<i>Review: Undertake an ecological assessment of the path network and the opportunities and constraints they present. Integrate with Site Improvement Plan actions</i>	2025
1/2/4	<i>Review: Undertake a review of the path management responsibilities of third parties and their effectiveness, to confirm management responsibilities going forward.</i>	2022
1/2/3/4	<i>Review: Green Lanes Policy Development Note prepared.</i>	2021
1/4	<i>Review: Undertake a review of the access zones to assess their effectiveness and opportunities for refinement eg to sub-compartment level</i>	2030
2/4	<i>Improvement Programme: Prepare detailed project plans arising from the Sustainable Visitor Strategy for improvement projects to seek funding and Statutory permissions.</i>	2022
2/3	<i>Improvement Programme: Identify and establish a pilot modal shift Local Forest Access Project and monitor the impact on</i>	2022

	users and habitats. Proposed initial location is Goldings Hill. The benefits of widening this approach will be considered in the Sustainable Visitor Strategy	
1/2/3/4	<i>Planning:</i> Individual path management plans prepared for all monitored paths, including vegetation maintenance regime, path surface type, drainage details and habitat management opportunities.	2022
1/3/4	<i>Path Maintenance:</i> Arising from path condition monitoring (see above), undertake annual path maintenance works to ensure the condition of the path network meets the access standard for each path category.	Ongoing
1/3/4	<i>Path Maintenance:</i> Manage path vegetation according to Individual Path Management Plans, to ensure vegetation meets the access standard for the path type.	Ongoing
2/4	<i>Path Maintenance:</i> Initial drainage works improvement program prepared based on the 2019 Audit and work program undertaken.	2021
2/4	<i>Signage:</i> Phased replacement of the waymarker bollards with discs.	Ongoing
2/4	<i>Signage:</i> Cut back annually all ground and arboreal vegetation that would impede orientation signs. Potential volunteer task.	Ongoing
1/4	<i>Finance:</i> Focus path management on the high access category compartments of Red+ and Red to develop a better understanding of the full impact of changed costs. Review after five years	Ongoing/Review 2025

APPENDICES

Appendix One: Example of a compartment sketch map of paths

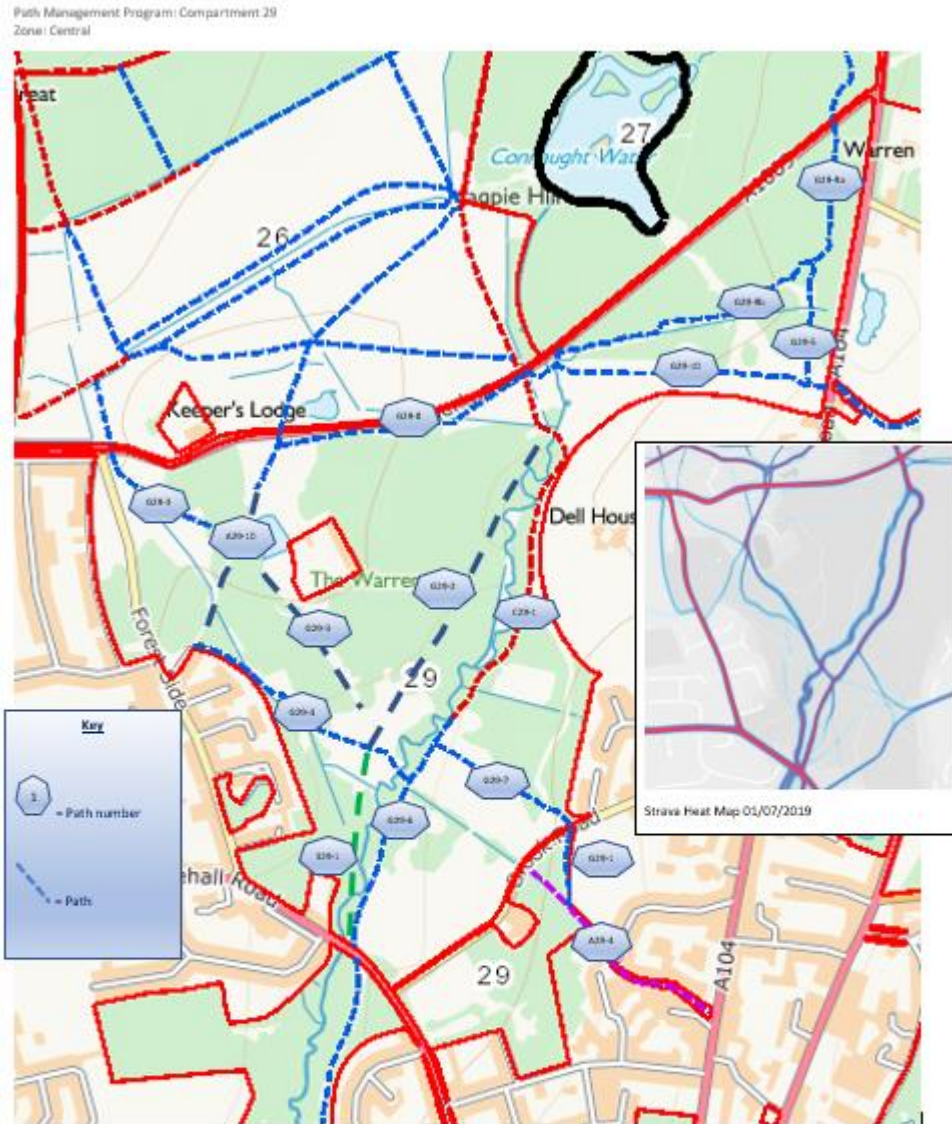
Appendix Two: BT Countryside for All Accessibility Standards

Appendix Three: Environmental Checklist

Appendix Four: Path Audit Form

Appendix Five: Standard Specifications for Path Management

Appendix One: Example of a compartment sketch map of paths



Appendix Two: BT Countryside for All Accessibility Standards

	Path Surfaces (see note 1)	Path Widths (see note 2)	Width restrictions (see note 3)	Barriers (see note 4)	Maximum distances between passing places (see note 5)	Maximum distances between rest areas (see note 6)	Maximum steepness of ramps (see note 7)	Maximum height rise between landings on ramps steeper than 1:20 (see note 8)	Maximum slope across a path (see note 9)	Maximum step levels (see note 10)	Surface breaks (grills, board-walks) (see note 11)	Clear walking tunnels (see note 12)
Urban and formal Landscapes For example countryside areas with a lot of man-made features	Hard, firm and smooth surface with very few loose stones and none bigger than 5mm	1200 millimetres (millennium Miles)	At least 815mm for no more than 300mm along the path 1,000mm for no more than 1,600mm along the path	There should be no steps, stiles, and no fences, hedges or walls to restrict access	50 metres (m)	100m	1 in 12 (for example for every 12 metres you travel you can rise one metre)	750mm (for example landings should be every 9m along ramps of 1 in 12)	1 in 50	5mm	The largest break in the surface of the path should be no more than 12mm measured along the line of the path	1,200mm wide x 2,100mm high
Urban fringe and managed landscapes For example, countryside areas near towns or managed recreation sites	Hard and firm surface with very few loose stones and none bigger than 10mm	1,200mm	At least 815mm for no more than 300mm along the path 1,000mm for no more than 1600mm along the path		100m	200m	1 in 12	830mm	1 in 45	10mm		1,200mm wide x 2,100mm high
Rural and working landscapes For example, farmland and woodland with public rights of way	Hard and firm with some loose stones and chippings not covering the whole surface. The stones should be no bigger than 10mm	1,000mm	At least 815mm for no more than 300mm along the path 1,000mm for no more than 1,600mm along the path		150m	300m	1 in 10	950mm	1 in 35	15mm		1,000mm wide x 2,100mm high
Open Country, semi-wild and wild For example, mountains, moorlands and remote countryside	<p>People expect to make their own way, not to have this environment changed to provide access.</p> <p>If paths and trails are provided in this setting, they should meet the standard for the rural and working landscapes setting (as shown in the row above).</p>											

Appendix Three: Environmental Checklist

ENVIRONMENTAL CHECKLIST

Compartment No		Site Name	
Date		Contact	

Description of the operation

CHECKLIST

Does the COL own the land concerned?

- *If no or unsure check with land Agent*

Y/N

Is the COL responsible for undertaking the work?

- *Operational agreements cover some parts of the Forest where works are the responsibility of others.*
- *Check with land agent if in any doubt,*

Is the operation on Buffer Land?

- *Any tree felling may need a Felling Licence from the Forestry Commission.*

Is the operation on Forest Land?

- *Operations not covered by the Management Plan and/or approved annual works programme may need consent from Natural England*

Do any statutory designations apply to the area of the operation?

- *TPO: no tree with a TPO should be worked without consent for the Local Authority*
- *Conservation area: No tree should be worked without consent for the Local Authority*
- *SSSI/SAC: Consent may be required from Natural England or a Habitat Regulations Assessment may be required dependent on scale of any proposal*
- *SAM/RPG: Consent may be required from Historic England and/or Local Authority.*

Does the operation involve ditches, watercourses or ponds?

- *Land Drainage consent may be required for some work, eg EFDC have separate bylaw re drainage*
- *EA consent may be required for work on watercourses*

Does the operation involve work on a dam?

- *Liaise with the Department of Built Environment regarding work on dams.*

Do the operations impact directly on protected species eg Bats, nesting birds and Great Crested Newts or veteran trees?

- *Liaise with the Conservation Team over the proposals*

Does the operation require planning permission?

- *Creating new entrances, upgrading paths and installing signage may require planning permission*

Have the heritage and scarce species maps been checked for sensitive features

- *Liaise with the Conservation Team over the proposals if any records*

Is the work in an area covered by grant funding or other external obligations?

- *Liaise with other Epping Forest Officers on external obligations*

ISSUES IDENTIFIED

MITIGATION MEASURES

Appendix Four: Path Audit Form

General Details

Location		Date	
Path No		Surveyor	
Path Name		Length (m)	

Path Type (Can tick more than one)

PRoW: Footpath		Unsurfaced shared use path	
PRoW: Byway		Easy access trail	
PRoW: Bridleway		Promoted route	
Cycle path		Informal path	
Surfaced shared use path			

Drainage Condition (All paths)

Facing edge	North	South	East	West
Ditch Location				
Ditch Condition				
Running freely				
Restricted flow but running within ditch				
Restricted flow with overflowing onto path				
Not functioning, blocked.				

Surfaced Path Condition (Can tick more than one)

(Relatively) Even surface		Sub-base exposed: Occasional	
Rill/gulley erosion		Sub-base exposed: Frequent	
Frequent potholes < 40mm deep		Restricted verge drainage	
Frequent potholes >40mm deep			

Edge Vegetation (check Scarce Species Register on *CityMaps*)

Zone	Grass/ Bramble	Scrub	Woodland	Encroaching	
				Aerial veg	Ground veg
One					
Two					
Three					

Structures

Structure	No	Condition	
Culvert		Running freely	
		Restricted flow: running	
		Not functioning: collapsed	
		Not functioning: blocked	
Vehicle Bridge		Functioning: No work	
		Functioning: minor non-structural repairs	
		Functioning: Significant, including structural repairs	
		Not functioning	
		Immediate closure	
Pedestrian Bridge		Functioning: No work	
		Functioning: minor non-structural repairs	
		Functioning: Significant, including structural repairs	
		Not functioning	
		Immediate closure	
Seat/Bench		Functioning: No work	
		Functioning: minor non-structural repairs	
		Functioning: Significant, including structural repairs	
		Not functioning	

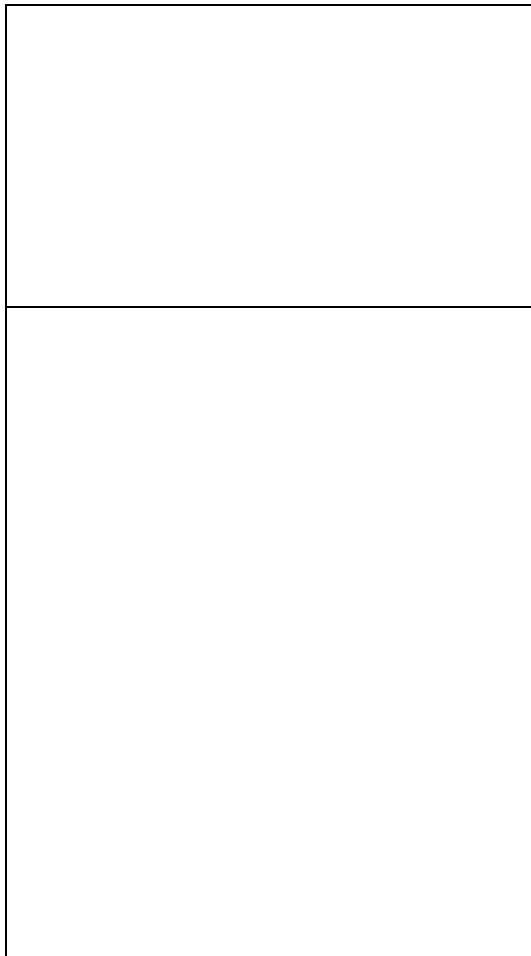
<p>Comments</p>

Map Key

Ditch (Blocked)	----- +++++	Culvert (Blocked)	○
Vehicle Bridge	▲	Pedestrian Bridge	■
Seat	S	Encroaching Vegetation	◀▶

Appendix Five: Standard Specifications for Path Management

- **Easy Access Trail**
- **Waymarked Trail**
- **Official Natural Surface Paths**
- **Official All-weather surface paths**



Forest Standard: Easy Access Trails

Background

Four paths totaling 2.9 km are promoted as 'Easy Access trails'. Each trail has a level, firm, non-slip surface with benches and passing places for wheelchairs at regular intervals. Interpretation is available at the beginning of the trail and is large print and accessible and readable from a seated position.

The trail locations and lengths are as follows:

- High Beach (0.8km)
- Connaught Water and the Red Path (1km)
- Knighton wood (0.65km)
- Jubilee Pond (0.5km)

Cycling and horse-riding are not permitted on easy access trails with information signage erected at key points to advise on this.

Path surfacing has historically been undertaken using a range of surface material however repairs and any new surfacing is being undertaken using Coxwell Self binding gravel and 5mm path dressing. Timber edging has been used on some paths and will no longer be used due to it becoming an increasing trip hazard.

There may be some overlap of the Official surfaced paths with Waymarked trails.

Access standard

Path surface: Minimum surfaced path width 1.2m. Variable construction historically with repairs and new surfaced paths to be installed as follows:

Base layer: Coxwell Self binding gravel

Wearing coarse: Coxwell 5mm path dressing

Drainage: Ditching essential on slopes and on wet sections and as required elsewhere

Bridges/Culverts: Bridges and culverts are regularly used on these routes to manage water movement.

Access Box: Minimum 3m wide by 3m high.

Waymarking: Routes are not waymarked

Standards of Maintenance

Verge management:

- 1m verge cut twice a year or to ensure grass and herbaceous growth is a maximum of 22.5cm in height
- Woody edge vegetation cut every three years or to ensure a minimum of a 3 x 3m access box
- Where cut material is to be chipped the chips are to be dispersed on the forest floor ensuring the following practice is adhered to:
 - **Do not** spray chip over moss/lichen mats, deadwood piles or logs, rides or ride sides or to the bases of semi-mature and mature trees. Avoid grassy areas and areas with flowers.
 -

- **Do not** create large woodchip piles but focus on a shallow even spread of chips.
- **Do** focus on bramble and bracken areas for woodchip receptor sites.
- No timber or cordwood to be left where it could be hit by machinery undertaking routine maintenance of the bridleway.

Ditches: Existing ditches kept clear of vegetation and debris.

Path surface: The wearing coarse of paths to be maintained in a smooth compact condition with rare sections of exposed sub-base which are repaired within one month following identification.

Edging boards: Timber edging boards have been used at the High Beach and Knighton Wood's paths. These will be phased out as they come up for replacement.

Condition Monitoring

- All routes inspected once a year;
- Hazard inspection undertaken for imminent threat issues including trees and unauthorised structures;
- Vegetation encroachment assessed to ensure height and width requirements are met;
- Ditch condition: Identify and report on works to remedy any blockages or interruptions to the water flow;
- Path surface: Report problems including, exposed sub-base, loose material.
- Signage: Presence and condition of signage
- Edge boards: Condition
- Structures, including gates, culverts and bollards, inspection undertaken as required under their respective Forest Standards.

Recording

Path Condition and Maintenance reports to be completed for each maintenance and inspection visit and passed to the Head of Operations who will update the path management database.

Further Guidance

Path closure: Only light tasks or quick moving tasks should be undertaken, eg pole sawing overhanging vegetation or small-scale scrub cutting without closing the path. Where more substantial tasks are identified so that a path closure may be likely then provide a description of the work and its location to the Head of Operations.

Banksman: In all cases consider the desirability of having a banksman or someone on less intense work and who can keep an eye out for riders.

Bird nesting: During the nesting season do not work thick scrub areas and instead mark these on the map for work outside of the bird breeding season.

Uncommon species – flora and fauna: The following species should not be cut: Crab Apple, Wild Service, Butchers Broom Spindle, Buckthorn. Willow will need to be cut on a long-cycle coppice/pollarding rotation to ensure protection of egg-laying trees for Purple Emperor. Avoid cutting or adopt tree surgery rather than felling approaches with mature willows.

Large decaying wood timbers should be left intact on ride edges and carefully re-located (with approval) causing obstruction/hazard to users or maintenance

Forest Standard: Waymarked Trails

Background

Nine waymarked circular paths totaling 38.5km have been established across Epping Forest and the Buffer Lands. Each trail follows official and informal paths in Epping Forest as well as Public rights of way (PRoW). Some PRoW are on land not managed by the City of London.

Interpretation is available at the beginning of the trail and maps can be downloaded from the internet or obtained from EF visitor centres. Timber waymarker posts with arrows are located at regular intervals and main junctions along each path.

Path surfacing varies from surfaced to natural Forest soils with varied and occasionally steep topography.

The trail locations and lengths are as follows:

- The Chestnut Trail, Wanstead Park (5.2km)
- The Holly Trail, Chingford Plain (4km)
- The Willow Trail, Connaught Water (4km)
- The Hornbeam Trail, Leyton Flats (5.75km)
- The Lime Trail, Bush Wood (2.5km)
- The Beech Trail, High Beach (4km)
- The Rowan Trail, Knighton wood (2.5km)
- The Gifford Trail, Upshire, (2km)
- The Oak Trail, Theydon Bois (10.5km)

Access standard

Path surface: Variable depending on associated path type

Drainage: Variable depending on associated path type

Bridges/Culverts: Bridges and culverts are regularly used on these routes to manage water movement.

Access Box: Minimum 3m wide by 3m high.

Waymarking: Timber post with coloured arrow at major junctions and at regular interval in longer straight sections. (Possible transition to waymarker discs in future)

Standards of Maintenance

Waymarked trails follow a range of path types and the nature of these define the management status of the path section concerned. In addition to these maintenance standards:

Waymarkers: Annual maintenance of waymarkers to ensure they are clearly visible to users of the route. Repainting of arrows as required following inspection visits.

Condition Monitoring

Emphasis is on health and safety inspections and ensuring directional information is visible. Path condition assessment will be undertaken as required for each path type.

Frequency: All routes inspected once a year. This may be in addition to or at the same time as any associated path inspection;

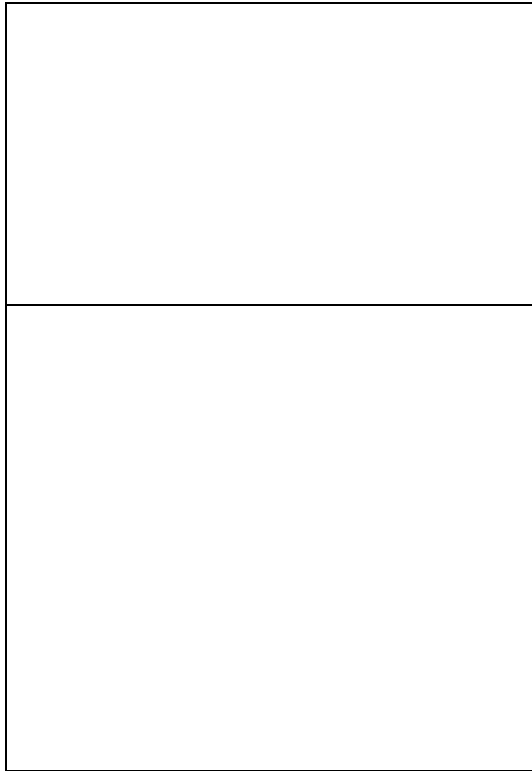
- Hazard inspection undertaken for imminent threat issues including trees and unauthorised structures;
- Vegetation encroachment assessed to ensure height and width requirements are met;
- Signage: Presence and condition of waymarking signage and directional markers
-
- Structures, including gates, culverts and bollards, inspection undertaken as required under their respective Forest Standards.

Recording

Path Condition and Maintenance reports to be completed for each maintenance and inspection visit and passed to the Head of Operations who will update the path management database.

Further Guidance

TBC



Forest Standard: Official Natural Paths

Background

44km of routes are identified on the Official Epping Forest map as unsurfaced paths promoted for use by horse riders, cyclists and pedestrians. Routes are present across all Access Zones

Routes are identified on the ground by regularly located posts with a painted white top. There may be some overlap of these paths with Waymarked trails.

The underlying wet clay ground conditions mean that many of these routes are closed to horse riders and cyclists in the winter months to prevent damage to the paths. Some routes will have localised wet sections that on average years dry out in the summer months only.

Initial vegetation management is required on many of these paths which are frequently encroached upon to get to the access standard.

Access standard (All Access Zones)

Path surface: Unimproved natural path surface. Excessive path damage and poaching repaired or path diverted

Drainage: Localised drainage to reduce or remove summer wet sections of path

Bridges/Culverts: Presumption is that bridges and culverts are not used on these routes unless they provide a significant improvement to the access route, such as the removal of a year-round wet section.

Access Box: 4m wide by 4 m high with occasional pinch points where the path can narrow down to 2m in width but with the vertical clearance remaining at 4m for sections no more than 20m

Waymarking: Treated round softwood bollard with white painted top to Forest Standard J2/J6 Waymarkers.

Standards of Maintenance

- Frequency, five yearly or as required depending on local conditions and stated on the path maintenance program.
- The track to be kept free of encroaching vegetation and overhanging branches in line with the access box requirements
- Where cut material is to be chipped the chips are to be dispersed on the forest floor ensuring the following practice is adhered to:
 - **Do not** spray chip over moss/lichen mats, deadwood piles or logs, rides or ride sides or to the bases of semi-mature and mature trees. Avoid grassy areas and areas with flowers.
 - **Do not** create large woodchip piles but focus on a shallow even spread of chips.
 - **Do** focus on bramble and bracken areas for woodchip receptor sites.
- No timber or cordwood to be left where it could be hit by machinery undertaking routine maintenance of the bridleway.

- Existing ditches to be maintained by keeping them clear of vegetation and debris. Minor clearing of silt to be undertaken with spades. More substantial silt clearance to be reported to the Head of Operations with a description of the work required and its location
- Path Condition and Maintenance report completed for each maintenance visit

Recording

Completed Path Condition and Maintenance reports to be passed to the Head of Operations or their nominated person who will update the path management database.

Condition Monitoring

- Frequency:
 - All routes inspected every ten years;
 - Hazard inspection undertaken for imminent threat issues including trees and unauthorised structures;
 - Vegetation encroachment assessed to ensure weight and width requirements are met;
 - Ditch condition: Identify and report on works to remedy any blockages or interruptions to the water flow;
 - Path surface: Report problems with drainage that leads to persistent erosion or wet areas;
 - Path Condition and Maintenance report completed for each inspection visit.
- Structures, including culverts and bollards, inspection undertaken as required under their respective Forest Standards

Further Guidance

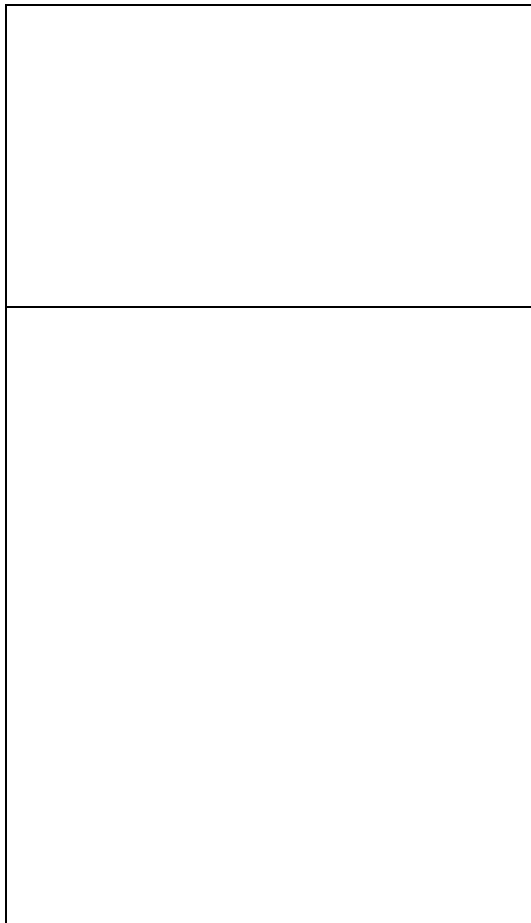
Closed paths: While there should be no riders/cyclists on paths closed, signs should be erected at the entrances to the path. Consider also using tiger tape to reinforce the closure, especially where more substantial works are required.

Open paths: Where riders/cyclists are permitted to ride and work is proposed then tree cutting operation signs should be erected at the entrance to paths. Only light tasks or quick moving tasks should be undertaken, eg pole sawing overhanging vegetation or small-scale scrub cutting. Where more substantial tasks are identified so that a path closure may be likely then provide a description of the work and its location to the Head of Operations.

Banksman: In all cases consider the desirability of having a banksman or someone on less intense work and who can keep an eye out for riders.

Bird nesting: During the nesting season do not work thick scrub areas and instead mark these on the map for work outside of the bird breeding season.

Uncommon species – flora and fauna: The following species should not be cut: Crab Apple, Wild Service, Butchers Broom Spindle, Buckthorn. Willow will need to be cut on a long-cycle coppice/pollarding rotation to ensure protection of egg-laying trees for Purple Emperor. Avoid cutting or adopt tree surgery rather than felling approaches with mature willows



Forest Standard: All-weather Paths

Background

28.3km of routes are identified on the Official Epping Forest map as surfaced paths promoted for use by horse riders, cyclists and pedestrians. Routes are present across all Access Zones.

The following paths while not identified as ‘Official’ paths on the Official map are also included in this specification:

- The Red Path
- Bush Wood Avenue

Surfaced official paths are required to facilitate a range of operational vehicles, including tractors and standard 2-wheel drive road cars.

Path surfacing has historically been undertaken using a range of surface material from rubble from WWII bomb sites, residues from steel working to quarried materials such as MOT Type 1 Granite and hogging.

There are several surfaced paths within the Forest that are the responsibility of third parties and are not maintained by the City of London

There may be some overlap of the Official surfaced paths with Waymarked trails.

Access standard (All Access Zones)

Path surface: Minimum width 3m including cut verges. Variable construction historically with repairs and new surfaced paths to be installed as follows:

Base layer: MOT Type 1 Granite

Wearing coarse: 5mm to dust granite

Drainage: Ditching essential on slopes and on wet sections and as required elsewhere

Bridges/Culverts: Bridges and culverts are regularly used on these routes to manage water movement.

Access Box: Minimum 4m wide by 4m high.

Waymarking: As required but not standard as with the unsurfaced official paths

Standards of Maintenance

Verge management, Frequency as cited in Table 1

Table 1: Frequency of edge vegetation management cycle by Access zone

ACTION	ACCESS ZONE (Years)*			
	A	B	C	D
1m verge cut	1	X	X	X
3m verge cut	3	3	5	5
Woody edge vegetation cut	5	7	10	10
Ditch vegetation management	3	3	5	5

Note: X- Not normally undertaken *May vary with local conditions

- The path to be kept free of encroaching vegetation and overhanging branches in line with the access box requirements
- Where cut material is to be chipped the chips are to be dispersed on the forest floor ensuring the following practice is adhered to:
 - **Do not** spray chip over moss/lichen mats, deadwood piles or logs, rides or ride sides or to the bases of semi-mature and mature trees. Avoid grassy areas and areas with flowers.
 - **Do not** create large woodchip piles but focus on a shallow even spread of chips.
 - **Do** focus on bramble and bracken areas for woodchip receptor sites.
- No timber or cordwood to be left where it could be hit by machinery undertaking routine maintenance of the bridleway.

Ditches: Existing ditches kept clear of vegetation and debris.

Path surface: The wearing course of paths will not normally be replaced following initial construction on these general use paths due to the long mileage and costs involved. Exceptions to this will follow a specific review of the location concerned by Forest operations and Keeper staff. Eg extensive exposure of war time rubble constructed path sub-base may need a replacement wearing course.

Condition Monitoring

- Frequency:
 - All routes inspected every five years;
 - Hazard inspection undertaken for imminent threat issues including trees and unauthorised structures;
 - Vegetation encroachment assessed to ensure height and width requirements are met;
 - Ditch condition: Identify and report on works to remedy any blockages or interruptions to the water flow;
 - Path surface: Report problems with drainage that leads to persistent erosion or wet areas;
- Structures, including gates, culverts and bollards, inspection undertaken as required under their respective Forest Standards.

Recording

Path Condition and Maintenance reports to be completed for each maintenance and inspection visit and passed to the Head of Operations who will update the path management database.

Further Guidance

Path closure: Where riders/cyclists are permitted to ride and work is proposed then tree cutting operation signs should be erected at the entrance to paths. Only light tasks or quick moving tasks should be undertaken, eg pole sawing overhanging vegetation or small-scale scrub cutting. Where more substantial tasks are identified so that a path closure may be likely then provide a description of the work and its location to the Head of Operations.

Banksman: In all cases consider the desirability of having a banksman or someone on less intense work and who can keep an eye out for riders.

Bird nesting: During the nesting season do not work thick scrub areas and instead mark these on the map for work outside of the bird breeding season.

Uncommon species – flora and fauna: The following species should not be cut: Crab Apple, Wild Service, Butchers Broom Spindle, Buckthorn. Willow will need to be cut on a long-cycle coppice/pollarding rotation to ensure protection of egg-laying trees for Purple Emperor. Avoid cutting or adopt tree surgery rather than felling approaches with mature willows