

Lea Valley Line – Harpenden Section Greenspace Action Plan 2019 - 2024

Produced by:

On behalf of:





OVERVIEW

Greenspace Action Plans

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

Public Engagement

Engagement with stakeholders is at the centre of effective management planning on any site. An initial engagement period was held for four weeks in October 2018, to establish core aims and objectives for the site; these are reflected in Section 3. A second stage of engagement completed in March 2019 enabled stakeholders to comment on the proposed management actions for the site. An associated engagement response document, published online as an appendix to this plan, summarises comments received and any amendments made to the plan as a result.

Version Control

Version	Issue Date	Details	Author	Reviewed	Approved

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1.0 SUMMARY

1.1 Site Summary

Site Name: Lea Valley Line

Site Address: Westfield Road, St Albans, AL5 4LT

Grid Reference: TL 13731 16063 extending to TL 15495 14594

Access points:

Westfield Road - TL 13882 15866

Ox Lane - TL14120 15485

Waveney Road - TL 14252 15294 Hickling Way - TL 14466 14992 Station Road - TL 514510 14950 Crabtree Lane - TL 14797 4751

Entrance next to Harpenden Sewage Works - TL 14871 14693

Entrance from Marquis Lane - TL 15080 14614

Size: Harpenden section 2.2 km long, covering an area of 3.9 ha

Designations: Leasey Bridge Dismantled Railway Wildlife Site (56/046)

Owner: St Albans District Council

1.2 Vision Statement

The Lea Valley Line will be a functional, safe and attractive multi-use route for active travel and recreation and provide high quality habitat for wildlife.

This will be achieved by the following aims:

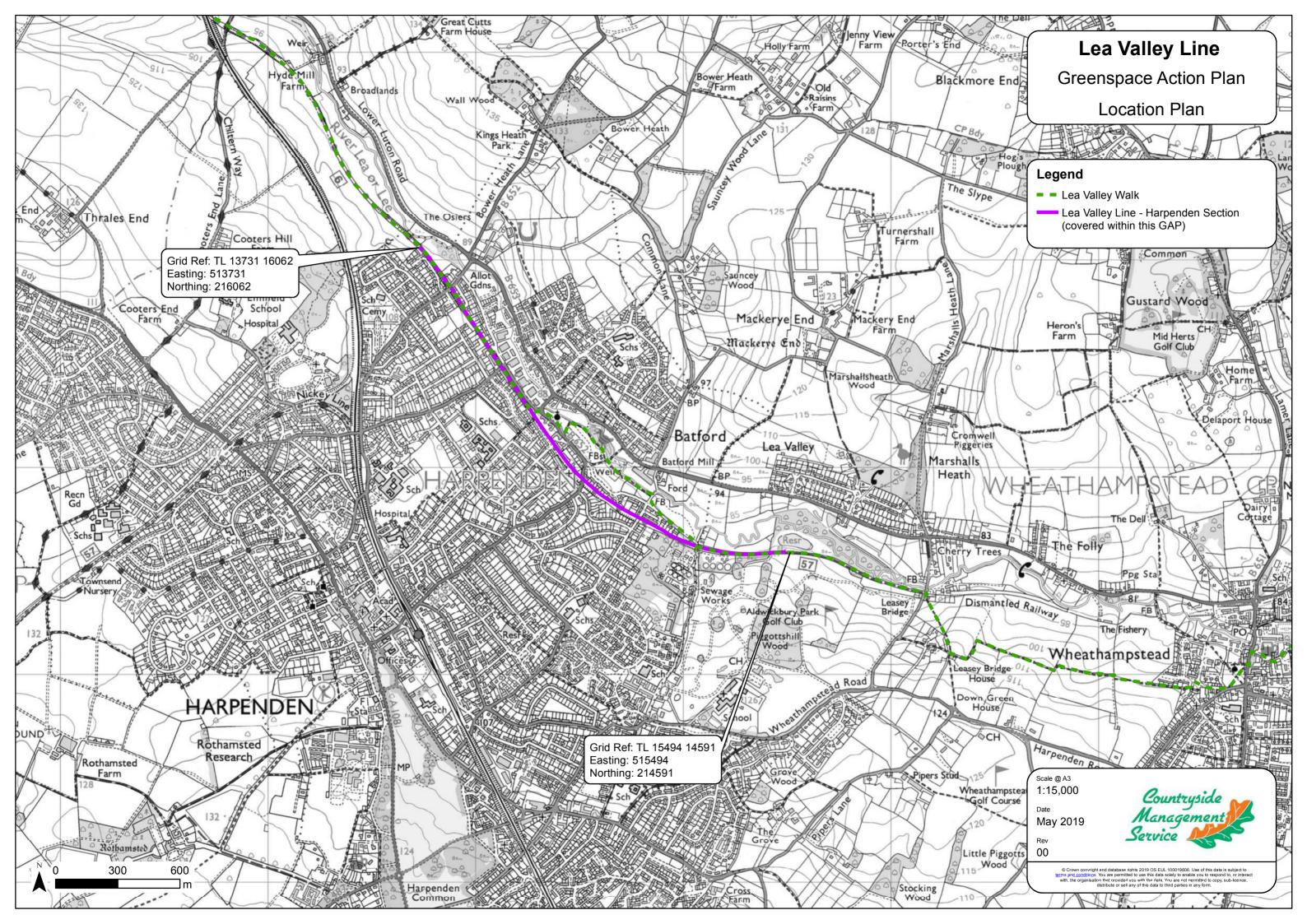
- To improve user experience, awareness and understanding of the site
- To provide and maintain clear and safe public access onto and along the multi-user route
- To protect and enhance the route as a green corridor
- To develop a stronger recognition of the heritage of the site, and promote respectful and appropriate use
- To ensure engagement and involvement of local communities along the route
- For all management activities to be environmentally and financially sustainable

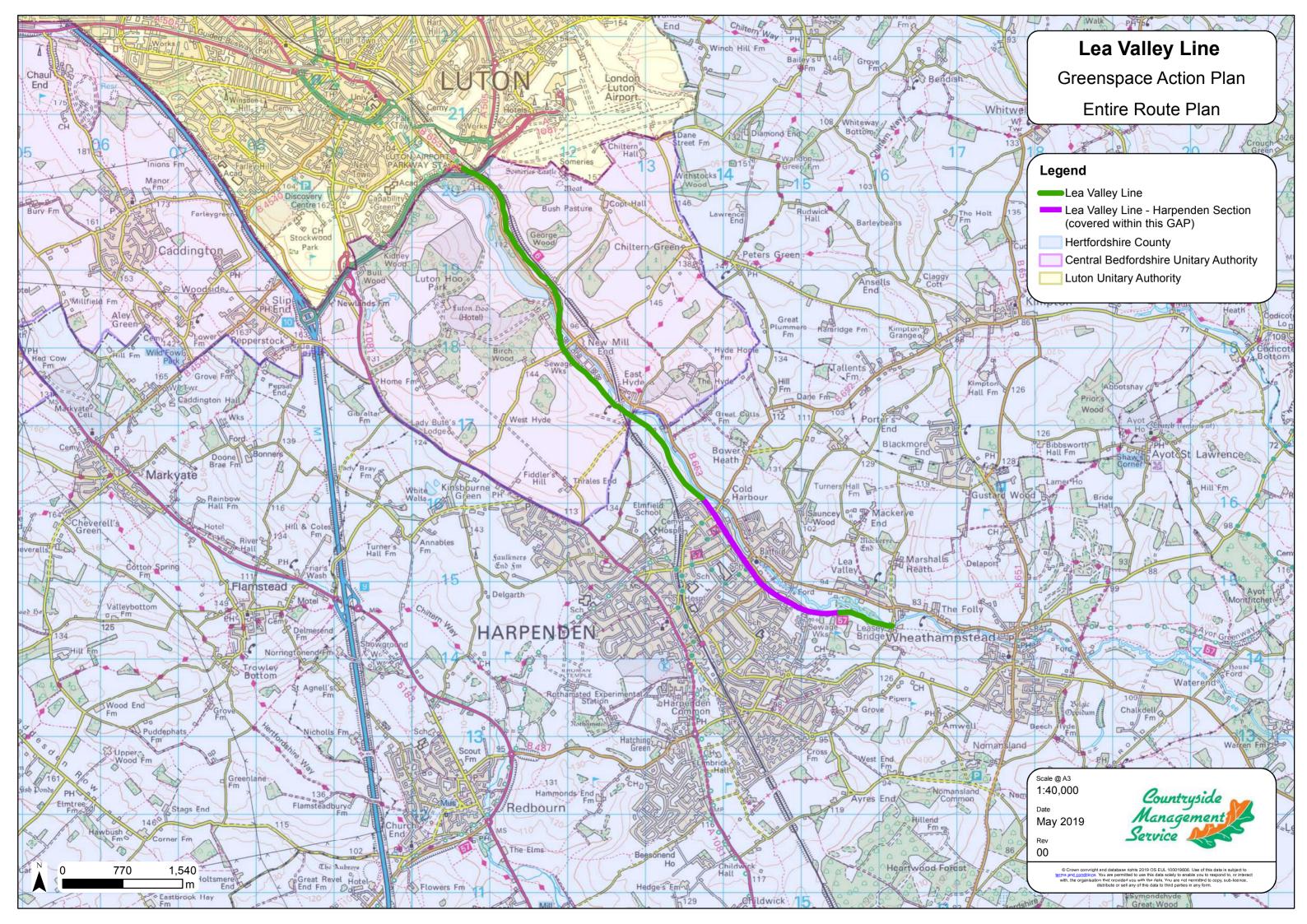
2.0 SITE DESCRIPTION

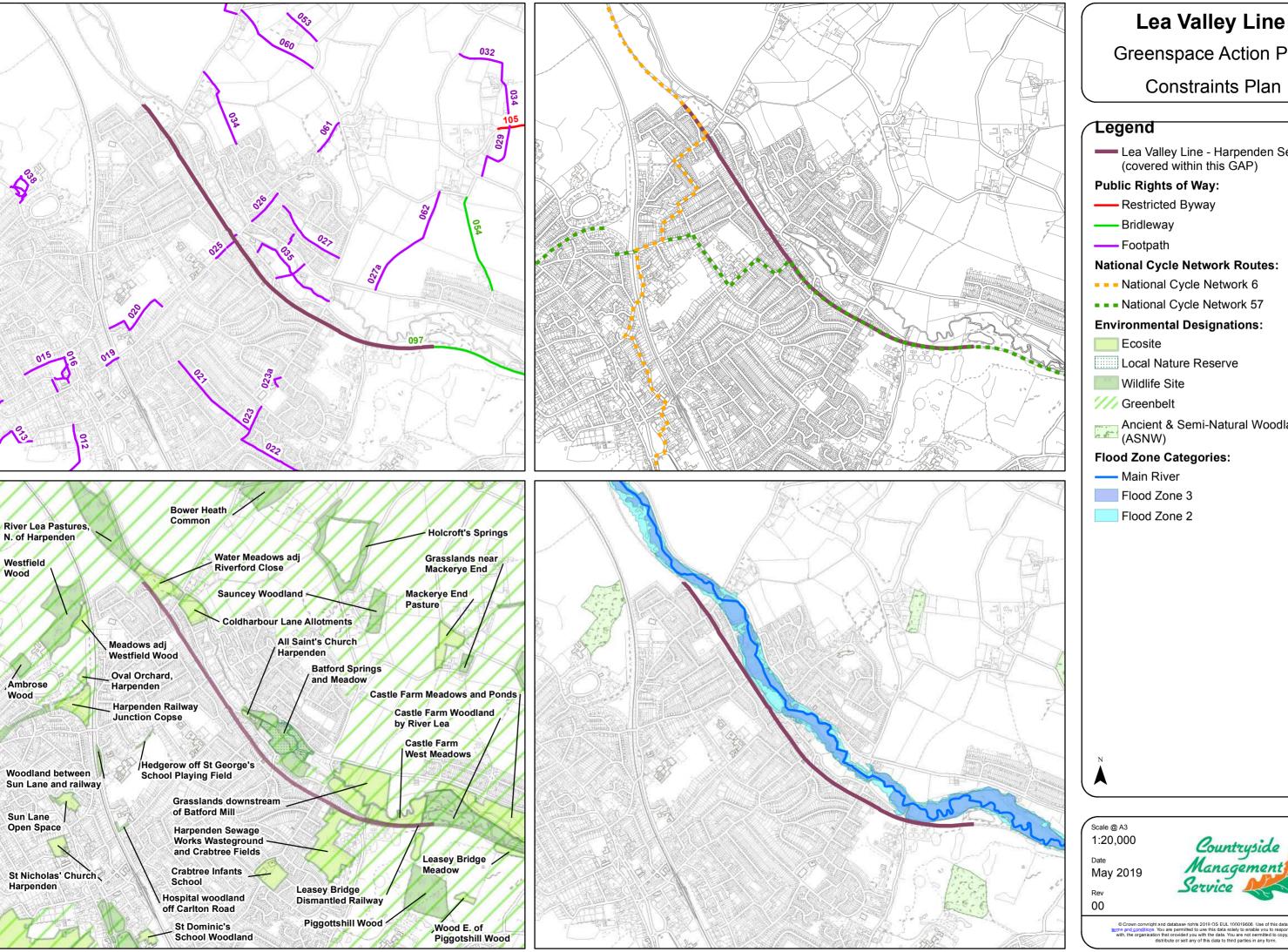
2.1 Introduction

This Greenspace Action Plan (GAP) covers a 2.2 km section of the Lea Valley Line, which extends along the outskirts of Harpenden and follows the course of the former Hatfield, Luton and Dunstable railway line. The site is owned by St Albans City and District Council (SADC), and managed by the Council in partnership with the Countryside Management Service. The majority of the route provides opportunity for off-road non-motorised travel, and is popular with walkers and cyclists. A small section of the route (approx. 380 linear metres) extends along the residential roads, Waveney Road and Hickling Way.

Sections of the route follow the Lea Valley Walk, a long-distance walking route running 80.5 km, following the River Lea from Luton to London.





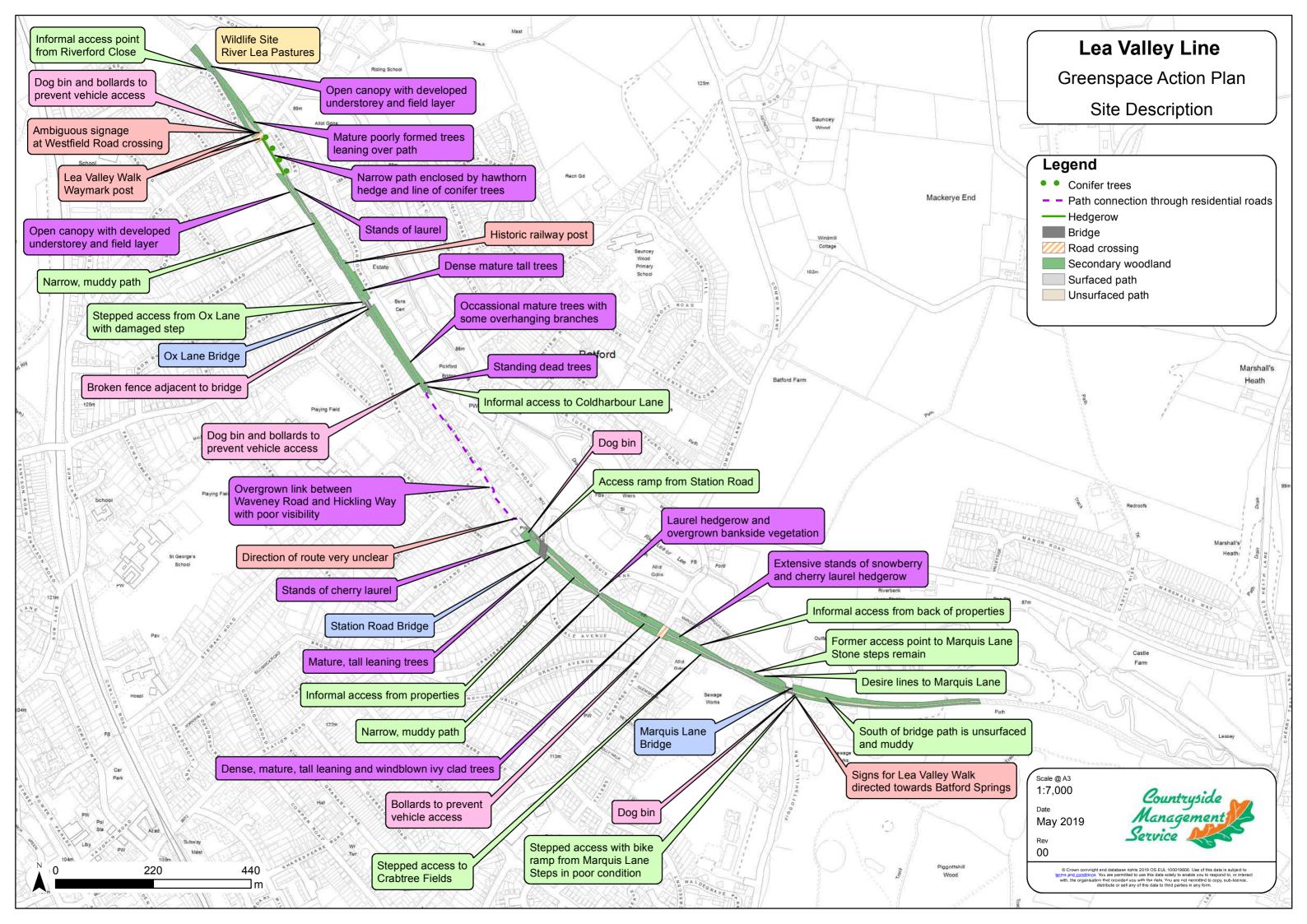


Greenspace Action Plan

Lea Valley Line - Harpenden Section

Ancient & Semi-Natural Woodland

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2.2 Geography and Landscape

The Lea Valley Line is a linear route which extends across the north of Harpenden, a town situated in St Albans City and District and located half way between St Albans and Luton. The Harpenden section of the route is bordered to the north by the village of Batford, and for the most part provides a direct non-motorised transport route for accessing the surrounding countryside and for commuting through Harpenden. Beyond the Harpenden boundary the Lea Valley Line provides an off-road non-motorised transport link to the edge of Luton to the north, and halfway to the village of Wheathampstead to the south. Here, the route becomes a footpath only to Wheathampstead.

The line passes on top of raised banks and through a number of deep cuttings surrounded by steep embankments. The predominant habitat type is linear secondary woodland of ash and oak, which has formed a densely shaded canopy. At points along the route where trees have been removed through previous management or where the route is raised on a bank, open areas are present.

Surrounding land use is varied and is dominated by residential dwellings, gardens and several green open spaces (see 2.4.1). There are also light industrial areas including a sewage treatment plant, with the Lea Valley Line acting as an important visual buffer zone and green linking corridor. A small section of the route (approx. 380 linear metres) encompasses the residential roads, Waveney Road and Hickling Way. The Lea Valley Walk pedestrian walking route deviates from the Lea Valley Line between the access points of Waveney Road and Marquis Lane, following a route through Batford Springs Local Nature Reserve (LNR).

2.3 History and Archaeology

The former railway line, which opened in 1860, also served as a valuable transport link for the local community. Operated by the Great Northern Railway Company, the railway connected Leighton Buzzard to Welwyn Garden City. Harpenden East train station provided the town with access to London, via Hatfield. The railway was primarily used to transport watercress from the River Lea to London, and for straw plait workers to commute to and from hat factories in Luton and St Albans. Passenger services were withdrawn in 1965, and following this, the station was demolished and housing was built along 400 m of the line. At this point the present Lea Valley Line joins and extends along Hickling Way and Waverley Road, before re-joining the route of the old railway line.

There are no obvious historical artefacts along the line; however there are wooden gate posts and a metal signal post present which hint towards the past use of the route as a railway.

2.4 Habitats and Wildlife

2.4.1 A Green Corridor

The route provides a continuous linear habitat corridor through the surrounding residential landscape, connecting urban greenspaces with open countryside. This habitat corridor has the potential not only to provide a refuge for wildlife, but also to facilitate movement between

valuable habitats. Although the site itself is bordered, for the most part, by residential properties, there are several important greenspaces within the surrounding landscape. Approximately 400 m of the southern section of the route falls within the Leasey Bridge Dismantled Railway Wildlife Site (56/046), designated due to the range of neutral grassland indicator species supported. Three other wildlife sites are located within close proximity to the route and include River Lea Pastures (41/014), Castle Farm Woodland (56/018) and Batford Springs and Meadow (41/010). There are a further 10 County Wildlife Sites located within 1 km of the route.

2.4.2 Secondary Woodland

While the railway was operational, the embankments and surrounding areas would have been composed of more open habitats. Closure of the railway and subsequent end of regular habitat management along the route has allowed the colonisation of secondary woodland and scrub. This linear strip of secondary woodland is dominated by mature ash and oak, which has formed a tall and densely shaded canopy. In particular, ash is common throughout the route and is likely to be affected by Chalara dieback within the next decade. The mature trees have all developed since the closure of the railways and as such are similar in age. It is important that an uneven age structure is developed so that there are young trees present to replace those that die. Other tree species along the embankments and cuttings include sycamore, hornbeam, willow spp., hawthorn and field maple. In many places, the dense semi-mature woodland on the embankments and cuttings prevents light from reaching the floor, and results in a poor, shade tolerant ground flora dominated by ivy and rank grass. In many areas along the route an understorey of holly and dense ivy clad trees contribute further towards the low light levels.

There are several pockets of scrub beneath the trees and in small open areas which provides an important habitat for small mammals and nesting birds, as well as a nectar source for invertebrates. The scrub is dominated by hazel, bramble, and holly, with dog rose and blackthorn also present. There are also a number of stands of young trees, predominately ash with occasional pedunculate oak.



Secondary woodland along route

2.4.3 Horticultural and Invasive Non-Native Species

A number of stands of snowberry, an invasive non-native species, have been recorded to the east of the route. There are a number of horticultural species present along the route, including leatherleaf viburnum which has likely spread from neighbouring gardens. There are also stands of Invasive Non-Native Species (INNS) including snowberry and cherry laurel.

2.4.4 Hedgerow

There are a small number of hedgerows delineating the boundary of the site. In particular, heading south from the entrance from Westfield Road the route is very narrow and is enclosed by a hawthorn hedge with some holly stands, and a line of conifer trees.

Amongst the secondary woodland along the route, there are a number of short sections of laurel hedgerows bordering the gardens of surrounding residential properties.



Hedgerow heading south from Westfield Road

2.4.5 Grassland

Common nettle is prevalent in the field layer, and encroaches over some parts of the surfaced path. There are also significant patches of dead-nettles, providing an important early source of nectar for invertebrates such as emerging bees. Within areas of dappled shade the ground flora comprises narrow strips of neutral grassland. In particular, a number of neutral grassland species have been recorded along the southern section of the route, and include common knapweed, bird's foot trefoil, oxeye daisy and field scabious.

2.4.6 The River Lea

The River Lea and associated floodplain is present to the north of the Lea Valley Line and the northern and southern sections of the route run immediately adjacent to the floodplain. At present the view of the River at both sections is obscured due to overgrown vegetation. The river corridor supports a range of species including wetland birds (water rail and sedge warbler), invertebrates and water vole.

Batford Springs Local Wildlife Site and Local Nature Reserve is situated to the north of the site and comprises a diverse mosaic of habitats including grassland, natural springs, seminatural woodland and the River Lea. The network of chalk streams, providing cool fresh water, historically supported the commercial production of water cress.

2.4.7 Wildlife Records

Records from the Hertfordshire Environmental Records Centre (HERC) indicate that a small number of protected species have been recorded close to the Harpenden Section of the Lea Valley Line. There are a number of records for Roman snails within the scrubby banks of the Lea Valley Line adjacent to the Westfield Allotments. This area (including 400 m of the

bordering banks of the Lea Valley Line) was historically identified as a wildlife site due to the presence of Roman snail colonies.

Two species of bat (pipistrelle spp. and noctule) have been recorded within the Westfield allotment area, and along the route itself. Common lizards have also been recorded along this section of the route. Records for common butterfly species include speckled wood, small white and orange tip, associated with the north-western section of the route. The eastern section of the walk was also notable for several sightings of the wall butterfly in the 1990s, while there are nearby records for white admiral, a UK BAP species, and small heath, a UK near threatened species. Toothwort, a rare plant in Hertfordshire, has historically been recorded along the banks of the south eastern section of the route. Observations of glow worms have also been informally reported within the Central Bedfordshire section of the wider route, and adjacent to the SADC boundary to the north-west.

Although there are a limited number of wildlife records for the Harpenden Section of the Lea Valley Line, the site is considered to have high suitability for providing habitat for, and supporting the movement of, a range of wildlife. This is due to the characteristic of the site as a linear habitat which connects a number of greenspaces and wildlife sites within the immediate area (see section 2.4.1). A variety of bat species are expected to use the Lea Valley Line as a corridor to feed and mature trees have the potential to support bat roosts. A variety of common birds can also be expected to nest in the trees and scrub along the route.

2.5 Access, Facilities and Infrastructure

2.5.1 The Green Infrastructure Network

The Lea Valley Line extends across the northern boundary of Harpenden, with several entrances providing access to local schools, small businesses, residential dwellings and greenspaces located within the vicinity of the route. For the most part, the Harpenden section of the Lea Valley Line provides a route for walkers and cyclists which is off-road.

Sections of the Lea Valley Line are part of the Lea Valley Walk, which in its entirety covers a stretch of 80.5 km and runs from Leagrave, the source of the River Lea near Luton, to the Thames at Limehouse Basin, east London. The route follows several green corridors including riverside paths, tow-paths and disused railways, and is waymarked with a swan logo. The route incorporates the Upper Lea Valley Walk (Luton to Wheathampstead), the Cole Green Way (Welwyn Garden City to Hertford) and The Lee Navigation towpath (Hertford to east London). Within London, 24.8 km of the route extends through the Lee Valley Regional Park, Britain's first regional park. Comprising 10,000 acres the park is rich in wildlife, nature reserves, and urban green spaces and provides opportunities for cycling, walking, white water rafting, ice skating, and horse riding. This section of the Lea Valley Walk (Lower Lea Valley Walk) which extends south into London has been described as a key Green Infrastructure Asset in the Hertfordshire Strategic Green Infrastructure plan.

In Harpenden, the path extending through Batford Springs Local Nature Reserve (LNR) was the first section of the Lea Valley Walk to be established and was pioneered by the Batford Springs Volunteers (formerly the upper Lea Valley Group). This route provides views of the river and the weir, and offers an alternative route for walkers from the disused railway.

2.5.2 Cycling

The Harpenden section of the Lea Valley Line is an important link in the local sustainable transport network, and forms part of Route 6 and Route 57 of the Sustrans National Cycle Network. Routes 6 and 57 provide an off-road cycle route from the edge of Luton to the edge of Welwyn Garden City, which is only broken by a one mile gap west of Wheathampstead. The route also forms part of the Chilterns Cycleway Network which is a 170 mile circular route around the Chilterns Area of Outstanding Natural Beauty.

2.5.3 Public Rights of Way

Footpath 25 adjoins the site at Waveney Road and forms part of the route of the Lea Valley Walk which extends through Batford Springs LNR and follows the route of Footpath 35. Approximately 200 m of the southern section of the route is designated as a Bridleway (97), permitting use by horse riders. Bridleway 97 continues to extend beyond the site boundary to the south following the route of the Lea Valley Line to Leasey Bridge. Although the rest of the route is not a Public Right of Way (PRoW), it provides a valuable connection to the wider PRoW network, with several formal and informal entrances from the neighbouring residential areas.

2.5.4 Access Points

There are many access points along the Lea Valley Line, both formal and informal. The main entrance points are:

Riverford Close – There is evidence of informal pedestrian access from Riverford Close down a steep bank.

Westfield Road – Open access to pedestrians and cyclists with bollards to prevent vehicular access. Old signs for the Lea Valley Walk are provided here, but these are in poor condition and hidden from view.

Ox Lane – The route passes over Ox Lane via a bridge, with steps providing access to, and from, the route. Several of these steps have begun to erode and are in need of repair. The fencing adjacent to the bridge is also in need of repair.



Informal access from Riverford Close

Waveney Road – The Lea Valley Line runs along Waveney Road, a residential street with footways for walkers. Footpath No 25 extends across Waveney Road providing access from the wider PRoW network and surrounding residential streets.

Hickling Way – The route extends from Waveney Road to Hickling Way, a residential street with footways for walkers. At the corner of Hickling Way the route once again takes the form of an off road path.

Station Road – There is ramped access from Station Road onto the Lea Valley Line which then passes underneath the road.

Crabtree Lane – Open access to pedestrians and cyclists with bollards to prevent vehicular access.

Crabtree Fields – There are steps which lead down from the area of waste ground and woodland adjacent to Harpenden Sewage Works. There are a number of informal paths through the woodland leading to Crabtree Fields and surrounding residential streets. The current steps do not comprise a sufficient flat landing.

Marquis Lane – The route passes over Marquis Lane via a bridge, with steps and adjacent cycle ramp providing access to and from the route. These steps are in poor condition and have eroded. There is also old stone steps present providing access to Marquis Lane through a small overgrown area of woodland.

2.5.5 Path Surface

The majority of the Harpenden section of the Lea Valley Line covered within this GAP has been surfaced with tarmac, providing a smooth surface suitable for use in all weathers. This path is for the most part in good condition. Some sections have become narrow due to overgrown bankside vegetation and an accumulation of leaf litter, mud and silt along the edges of the path. The narrower and muddier sections are generally associated with the cuttings, which have steep banks and are darker, shadier and have more overhanging vegetation. The section between Station Road and Crabtree Lane is a good example of this. A short section of the surfaced route (south of Crabtree Lane) has become concave, resulting in the pooling of water, creating wet and muddy conditions. The section heading east from the Marquis Lane Bridge is surfaced with crushed stone and can become muddy at times.



Cutting between Crabtree Lane and Station Road



Embankment between Marquis Lane and Crabtree Lane

2.5.6 Park Furniture

There are 5 dog bins situated at the following entrances; Westfield Road, Waveney Road, Hickling Way, Crabtree Lane and Marquis Lane.

2.5.7 Signage and Interpretation

Signage along the route is limited and there are no interpretation panels. Waymark signs for the Lea Valley Walk comprise a swan logo originally designed by the Batford Spring volunteers. This logo is used to signpost the Lea Valley Walk throughout its course in a variety of formats, including waymarks on posts and concentre outlines in the pavements in Luton. Waymarks for the Lea Valley Walk are provided at the Westfield Road entrance and are currently in poor condition and hidden from view. The waymarked route for the Lea Valley Walk directs walkers off the route of the dis-used railway and through the Batford Springs LNR adjacent to the River Lea. There are a number of signs for the Sustrans National Cycleway and the Chilterns Cycleway along the route.



The swan logo for the Lea Valley Walk



Current signage in poor condition and hidden from view

There are a series of leaflets which cover the entire route of the Lea Valley Walk from Luton to Bow in London. These leaflets describe the whole route, its history, and places of interest and provide contact details for the organisations involved with the management of the route. The Harpenden section of the route is described in the Stanborough Lakes to East Hyde leaflet. This leaflet includes a sketched map depicting the route, and shows the route extending through the Batford Springs LNR. Additional leaflets are available the Luton section, and the route through London is described on the Lee Valley Regional Park website and Transport for London website

2.5.8 Bridges

There are a total of seven road crossings along the Harpenden section of the Lea Valley Line. Of these, three of the crossings comprise an old railway bridge, detailed below:

- Ox Lane Bridge carries the Lea Valley Line, owned by HCC
- Station Road Bridge carries Station Road over the Lea Valley Line, owned by HCC
- Marquis Lane Bridge carries the Lea Valley Line, owned by HCC

The Station Road Bridge is currently screened from view by overgrown and overhanging vegetation.



Station Road Bridge screened from view

2.6 Community and Events

The Lea Valley Line is a popular route, used by various user groups – for walking, running, cycling and horse riding. This is the first five year Greenspace Action Plan to be produced for the route, and has been produced in consultation with relevant stakeholders, including:

- British Horse Society
- CycleHerts
- Harpenden and District Local History Society
- Harpenden Rural Parish Council
- Harpenden Scout Group
- Harpenden Town Council
- Hertfordshire County Council
- Herts Environmental Records Centre
- Herts & Middlesex Butterfly Conservation
- Herts & Middlesex Bat Group
- Historic Environment Record
- Local Residents and Landowners
- Local Schools
- Open Spaces Society
- Ramblers Association
- St Albans City and District Council
- St Albans Cycle Campaign
- Sustrans

To date local volunteers have had limited involvement along the SADC owned section of the Lea Valley Line (as per the route of the disused railway). The Sustrans volunteer group have been involved with maintaining signage and clearing vegetation from sections of the wider Lea Valley Walk between Luton Parkway and Harpenden.

The Batford Springs Volunteers (formerly the Upper Lea Valley Group) are an active conservation group founded in 1972, and help to maintain and manage the LNR, whilst also providing educational and recreational opportunities for the public. The BSV created the first section of what later became the Lea Valley Walk.

3.0 AIM & OBJECTIVES

The aim and objectives of the GAP are as follows:

Overall Aim

The Lea Valley Line will be a functional, safe and attractive multi-use route for active travel and recreation and provide high quality habitat for wildlife.

Aims and Objectives

- A. **Welcoming and informative** To improve user experience, awareness and understanding of the site
 - A1 Establish a scheme of interpretation that allows users to understand where they are both along the Lea Valley Line and within the surrounding area.
 - A2 Install appropriate and visible signage to, from and along the route whilst making the route more attractive.
 - A3 Promote responsible and respectful use of the site, and proactively respond to misuse of the site and anti-social behaviour.
- B. Safe and accessible To provide and maintain clear and safe public access onto, and along the multi-user route
 - B1 Improve access to, from and along the route; linking to local greenspaces, businesses and schools, residential areas, public transport, shops and local amenities.
 - B2 Ensure that access points and road crossing points are safe for all user groups.
 - B3 Ensure that the Lea Valley Line acts as a key corridor for sustainable transport, helping to increase wider uptake of sustainable transport in connection with other existing on-and off-road networks.
 - B4 Carry out reactive tree works to address safety issues.
 - B5 Manage and maintain the route's surface and signage.
 - B6 Remove fly-tip and litter and conduct small scale vegetation management.
- C. Conservation and habitat management To protect and enhance the route as a green corridor
 - C1 Undertake proactive, rotational woodland/vegetation management along the route to increase rates of regeneration, producing a dynamic habitat of varying age and structure. Work will also open up views across the countryside, and improve tree health (budget dependant).
 - C2 Recognise the value of mature trees and provide optimum conditions for their longevity.

- C3 Concentrate on removal of Invasive Non-Native Species (INNS) of plants, and selectively reduce introduced tree species.
- C4 Implement monitoring of tree diseases e.g. ash dieback; apply appropriate best practice if required in consultation with external experts.
- D. Heritage conservation To develop a stronger recognition of the heritage of the site, and promote respectful and appropriate use
 - D1 Identify and preserve on-site historical features along the route for visitor enjoyment.
 - D2 Inform site users and wider community about the site's heritage through effective and engaging information panels.
- E. Community involvement To ensure engagement and involvement of local communities along the route
 - E1 Encourage the local community to become involved in the management of the site through structure and support, and ensure all involved operate towards achievement of the objectives of the GAP.
 - E2 Hold events to encourage public use and understanding of the Lea Valley Line, and the historic railway line.
- F. Sustainable operations All management activities will be environmentally and financially sustainable
 - F1 Ensure the costs of ongoing maintenance proposed in the GAP are financially sustainable and achievable with the resources available.
 - F2 Seek external funding from grant bodies and development funds, to deliver proposed activities beyond annual maintenance.
 - F3 Ensure all management is carried out according to environmental best practice, including herbicide use, plant biosecurity to minimise tree disease, and sustainable woodland management practices.
 - F4 Identify multiple benefits, such as combining habitat and tree risk management.

4.0 MANAGEMENT PRESCRIPTIONS

4.1 A Safe and Sustainable Multi-user Route

The route is regularly used by multiple user groups, including pedestrians, cyclists and horse riders. Disagreement between user groups has not been identified as an issue following the first stage of public engagement for this GAP. The Lea Valley Line must remain a safe, high quality route for all user groups. Maintaining its status as an unsegregated, shared use route is likely to continue to encourage considerate behaviour by path users, and to reduce the speed of cyclists. It is therefore essential that management promotes safe use of the route by multiple users by maintaining the functional width of the path through vegetation clearance (see section 4.4.1) and surface improvements.

4.1.1 Surfacing

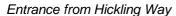
The whole of the Harpenden section of the Lea Valley Line has been surfaced with a width which varies from 2.5 m to 3 m, and provides an accessible route during the whole year. In a number of places along the route there is considerable accumulation of mud and organic material along the edges of the path which remain wet and muddy for much of the year. This organic material should be scraped off from the path and moved to low sections at the side in order to maintain the maximum width of the path and enable the surface to be shared safely by all users.

Good maintenance remains essential to maximise the lifespan and functionality of the surfaced route, which should be inspected annually and any problems addressed. The crushed stone surfaced section east of Marquis Lane Bridge should be monitored as part of annual inspections, and re-dressing of the surface undertaken as required. In addition, encroachment from tall vegetation, such as common nettle, reduces the functional width of the path during the summer, making collisions between users more likely. Cutting of the verges should take place regularly along problematic sections of the route throughout the spring, summer and autumn.

4.1.2 Access

Access points should promote the Lea Valley Line from surrounding areas, giving users information about the route and where they can get to. The access points should be attractive and accessible, whilst restricting unwanted vehicular access as much as possible. Vegetation should be cleared around entrances from public footpaths and road junctions to make these entrance points more open and welcoming. In particular, at the connection between Waveney Road and Hickling Way, overgrown vegetation makes the route unclear. The shrubs and the overhanging bankside vegetation at this connection should be cut back and the bank re-profiled to make the route more open and obvious. The two ash trees could also be felled to further open up the route, and bollards installed to prevent vehicle access. The entrance heading east from Hickling Way also needs to be made more obvious to users by removing low hanging branches or felling the group of conifer trees at this entrance, in combination with improved signage.







Connection between Hickling Way and Waveney Road

There is evidence of informal access from Riverford Close, which is causing bank erosion and is unsafe for users. This access point needs to be formalised with the installation of steps and appropriate signage. A number of the stepped access points require improvement. The steps adjacent to the bridges from Ox Laneand Marquis Lane require fixing. The steps leading from the Wasteland have an inadequate flat landing which needs to be replaced. Where space allows, channels for bicycle wheels should be installed alongside steps to make access easier for cyclists. This may not be possible at the Ox Lane entrance where space is limited. There are stone steps leading down to Marquis Lane through an area of overgrown scrubby woodland. These steps form a historic route and are in a state of disrepair. This route will not be opened up, and the growth of scrubby vegetation will be encouraged at the entrance to discourage usage.



- a) Eroded stepped access from Marquis Lane
- b) Eroded step from Ox Lane
- c) Steps leading towards Crabtree Fields with inadequate flat landing

4.1.3 Lighting

The majority of the Lea Valley Line through Harpenden is dark and shady, particularly in winter or early evening. The addition of artificial lighting would take away from the natural appeal that the Lea Valley Line provides whilst being expensive to install and maintain. Artificial lighting can also have detrimental effects on wildlife that use the route. The vegetation and woodland management carried out along the route by thinning trees and opening up glades (through coppicing trees and scrub) will allow much more light into the path creating a more welcoming environment.

4.1.4 Tree Surveys

The safety of users is of primary importance to SADC. Formal tree safety surveys are undertaken every three years; any works identified by the surveys will be addressed as a matter of urgency.

4.1.5 Structures

Bridges

The path passes underneath a bridge which carries Station Road. Overgrown and overhanging vegetation currently obscures the bridge from view. The vegetation surrounding the bridge should be cleared to open it up as a feature.

The fencing adjacent to the bridge which carries the Lea Valley Line over Ox Lane is in a state of disrepair and requires replacement.



Broken fencing adjacent to the Ox LaneBridge

Benches

There are currently no benches along the route of the Lea Valley Line. Timber sleeper benches, reflecting the railway heritage, should be installed at various locations along the route at natural stopping points. When choosing locations for new benches, consideration should be given to potential anti-socal behaviour and secluded locations avoided.

Bollards

At the road crossings along the Lea Valley Line there are a number of bollards of varying styles. A uniform style will be adopted for all new and replacement bollards which reflect a railways materials palette, such as timber or iron. These will be installed as and when old bollards require replacement.



Bollards of varying styles at entrance points

4.2 Habitat Management

4.2.1 Secondary Woodland

The Lea Valley Line was once an open railway and over time secondary woodland has developed along its length resulting in dark and shady conditions along the route, with limited ground flora. Management of the woodland along the Lea Valley Line has in recent years been limited to reactive tree safety work. However, more substantial woodland management is required to improve light levels and the vegetation quality.

The woodland habitat of the Lea Valley Line provides a valuable habitat corridor for wildlife as well as forming an effective boundary, screening residential properties. The multi-function nature of the route should be maintained and enhanced through a proactive programme of rotational woodland and vegetation management along the route. Habitat management should include light thinning along the wooded sections, favouring specimen trees and prioritising the felling of either dangerous trees or those of poor form. Particular attention should be paid to ash trees, and those showing signs of ash dieback targeted for felling. Woodland thinning is a high priority at the following locations where the route is very dark and enclosed; north-west of Ox Lane Bridge, south-east of Station Road Bridge, north-west of Crabtree Lane entrance.

Habitat management should also include rotational coppicing of dense scrub and trees which have previously been coppiced. Rotational coppicing will create temporary open pockets which will not only improve the user experience and feeling of safety, but also contribute to the development and maintenance of the secondary woodland and scrub habitats which predominate. In particular, rotational coppicing will encourage a diverse age structure of the vegetation and encourage bushy re-growth from the base, thus maintaining screening of the properties which are adjacent to the route.

There are a number of trees covered in an extensive amount of ivy. Ivy does not pose a risk to healthy trees and is important for wildlife through the key provision of shelter and nectar. However, the substantial growth of ivy, particularly associated with low, overhanging branches, has enclosed the route in some areas and contributes towards the low light levels. The growth of ivy will be controlled through the thinning and coppicing of trees, and the targeted removal of large overhanging branches. Ivy cover will be reviewed following management operations in order to determine whether further management is required.

Woodland management is also required to prevent encroachment of trees and scrub onto the route in order to maintain the functional width of the path. This is a particular priority at the following locations; entrance from Westfield Way; adjacent to, and south-east of the Station Road Bridge; and south-east of Crabtree Lane entrance. Woodland management will also be combined with a regular programme of path clearance (see section 4.4.1).



Encroaching vegetation along the route

4.2.2 Horticultural and Invasive Non-Native Species

There are a number of stands of invasive non-native species (INNS) particularly towards the centre and the south-eastern end of the route, comprising cherry laurel and snowberry. INNS have the characteristics to spread rapidly and become dominant within an area. This can lead to a bare understorey and reduction in biodiversity. Horticultural species are also present, and are a particular issues towards the south-east and northern sections of the route.

In order to improve the biodiversity value and appearance of the route, a gradual clearance of INNS and horticultural species will be implemented. INNS removal will contribute to the creation of more open habitats; however, where screening is required to the back of properties, planting of native shrubs will take place.

4.2.3 Hedgerow

At the entrance from Westfield Road, the line of conifer trees which run parallel with Hyde Close are considerably large and cast a substantial amount of shade on the narrow path. These trees should be removed. The route at the back of the properties along Wroxham Way is relatively open with sparse mature trees and a field layer dominated by young trees, mostly ash regeneration. Many of these ash saplings are showing signs of ash dieback and are likely to be lost over the next few years. An assessment should be made, and native hedgerow species planted adjacent to the boundary to maintain the screening effect of this woodland where required. Other areas should be left to regenerate naturally, contributing to grassland and scrub development.

4.2.4 Grassland

Increased light levels created through the woodland management operations of thinning, coppicing, and INNS removal will also help to promote the growth of ground flora and improve the quality of the grassland habitat for wildlife. As woodland management continues along the route more open pockets will be created and others will disappear as the vegetation grows back, allowing flowers to disperse along the route. In particular, the creation of temporary open pockets, through a combination of tree felling and scrub coppicing towards the southern and northern ends of the route will open up views across the floodplain of the River Lea.

4.2.5 Protected Species

All works carried out along the route should take into account the requirements of protected and priority species, including bats, reptiles, badgers, invertebrates, nesting birds and Roman snails. For example, encouraging the growth of areas of scrubby habitats will benefit Roman Snails. This will be combined with the creation of log piles using timber from the woodland management to create suitable habitat for Roman snails along the route.

4.3 Signage and Interpretation

4.3.1 Signs and Waymarks

There is a lack of signage for the Lea Valley Line along the route, with no information provided on the length of the route and the connections available to other walking routes.

Signage is required at all access points, road crossings and junctions with public rights of way to make it clear which routes are part of the Lea Valley Line and where the connections lead to. In particular, where the Lea Valley Line emerges onto Waveney Road walkers must proceed on pavements to Hickling Way and around a corner to find the next section of the route. Improved signage is required here to improve navigability and to distinguish the Lea Valley Line from the Sustrans Cycle Route 57 which continues to extend through residential streets before re-joining the route of the Lea Valley Line at the Westfield Road entrance. Shared use signage would be beneficial to make access rights clear for all users, emphasise that no user groups have priority and encourage good behaviour by all user groups.

A new logo will be designed for the Lea Valley Line, reflecting the route's railway heritage, similar to those used on other nearby paths such as the Alban Way and Nickey Line. New signage should also be designed to reflect the railway history of the route providing visitors with useful information such as destinations and distances, and should be consistent along the route. Providing information on distances to entry and exit points will also create a greater feeling of security, by giving users the confidence that they would be able to leave the route in an emergency. Spray on surface signage could be used on the bound surface as an alternative to sign posts, and has been successfully used along the Alban Way.

It is equally important that the Lea Valley Line is appropriately signed from off-site in order to promote and direct people towards the route. This may include the installation of waymarks or the addition of signs to existing finger posts.

Future signage projects should engage with neighbouring land owners and Central Bedfordshire Council to provide consistent waymarking along the whole length of the Lea Valley Line, running from the edge of Luton to Leasey Bridge.

Signage for the Lea Valley Walk long-distance walking route should also be improved along the route, incorporating the established and well recognised swan logo. This will make it clear to users where the route of the Lea Valley Walk diverges from the Lea Valley Line through Batford Springs.

4.3.2 Entrance Signs

Entrance signage at formal access points along the Lea Valley Line would distinguish and promote the route to potential users. In particular, the entrances from Hickling Way and Station Road are very unclear and require improved signage. Signage should also be used to promote destinations which can be reached from the Lea Valley Line. In particular, the route of the Lea Valley Walk through the Batford Springs LNR needs to be appropriately signed at the relevant access points along the route (Marquis Lane and Waveney Road).

4.3.3 Interpretation

There are currently no interpretation panels along the route. An interpretation panel should be provided to engage visitors with the history of the old railway line and could feature historic photos of the former Harpenden East Train Station and platform. The lattice post located between Westfield Road and Ox Lane could provide a suitable focal point and location. The interpretation should also show the wider walks which are available in the area.

A leaflet should also be created and printed with images and text to show the route through Harpenden and further connections which are available. Leaflets are currently available for the Nickey Line and the Alban Way, both former railway sites. To retain consistency the leaflet for the Lea Valley Line will take on a similar design and format. The leaflet should encompass the whole of the disused section of railway, from the edge of Luton as far as Leasey Bridge, and provide information on links into Luton and from Leasey Bridge towards Wheathampstead and Welwyn Garden City.

Maps used in interpretation and leaflet should include information about which entrances are suitable for horse/cycle access. Interpretation boards and leaflet will also include contact details for reporting issues.

4.4 Grounds Maintenance

Regular maintenance of the route is important to ensure that it feels cared for and to encourage regular use. This should include promptly removing any graffiti or fly tipping when it is reported, carrying out regular litter picking particularly around entrances and small scale vegetation management.

4.4.1 Path Clearance

A regular programme of vegetation cutting along the margins of the route should be established to keep the full width of the path, access points, signage and furniture free from encroaching vegetation throughout the year. A path corridor which is at least 4 m high and extends 1 m to either side of the track should be kept free of vegetation.

4.4.2 Dog and Litter bins

Dog bins are provided at several entrances along the route, and are emptied once a week as a minimum or when required by the Grounds Maintenance contractor. Users will be encouraged to continue to take litter and bagged dog waste home where bins are not present.

4.4.3 Fly Tipping

Fly tipping occurs along the Lea Valley Line in the form of dumped garden rubbish from local properties, particularly towards the south-eastern end of the route, and there is occasionally fly tipping at the main entrance points as well. This is currently dealt with as part of the Grounds Maintenance contract. Letters should be sent out to properties that are responsible for the rubbish to deter future fly tipping. SADC will liaise with local businesses along the route if and when any issues arise.

4.5 Community Involvement

Greater involvement of the local community in the management of the Lea Valley Line has started through the process of developing this plan. Two stages of community engagement will enable stakeholders and local people to shape and influence the outcomes of the plan, and should help build understanding and support for its objectives.

In addition, a number of respondents from the first stage of engagement expressed an interest in volunteering to help maintain the route. The potential for establishing a formal Friends Group for this site will be investigated.

Local volunteers can play an active role in the future management of the site in various roles including conducting practical conservation management tasks on the route and local rights of way, installing interpretation panels and benches, leading events and running guided walks, and carrying out monitoring and surveying work. In particular, guided walks will be held to allow people to understand the history and nature along the route. These walks can be promoted via the Walks and More programme operated by CMS.

4.6 Funding

The proposals outlined within this GAP require varying levels of financing. The delivery of all proposals and the suggested timetable for works is dependent upon the required funding being sourced.

CMS will continue to work closely with SADC to source external funding for the implementation of capital works. This will include grant applications, particularly in relation to the importance of the Lea Valley Line to communities and sustainable transport.

5.0 ACTION PLANS AND MAPS

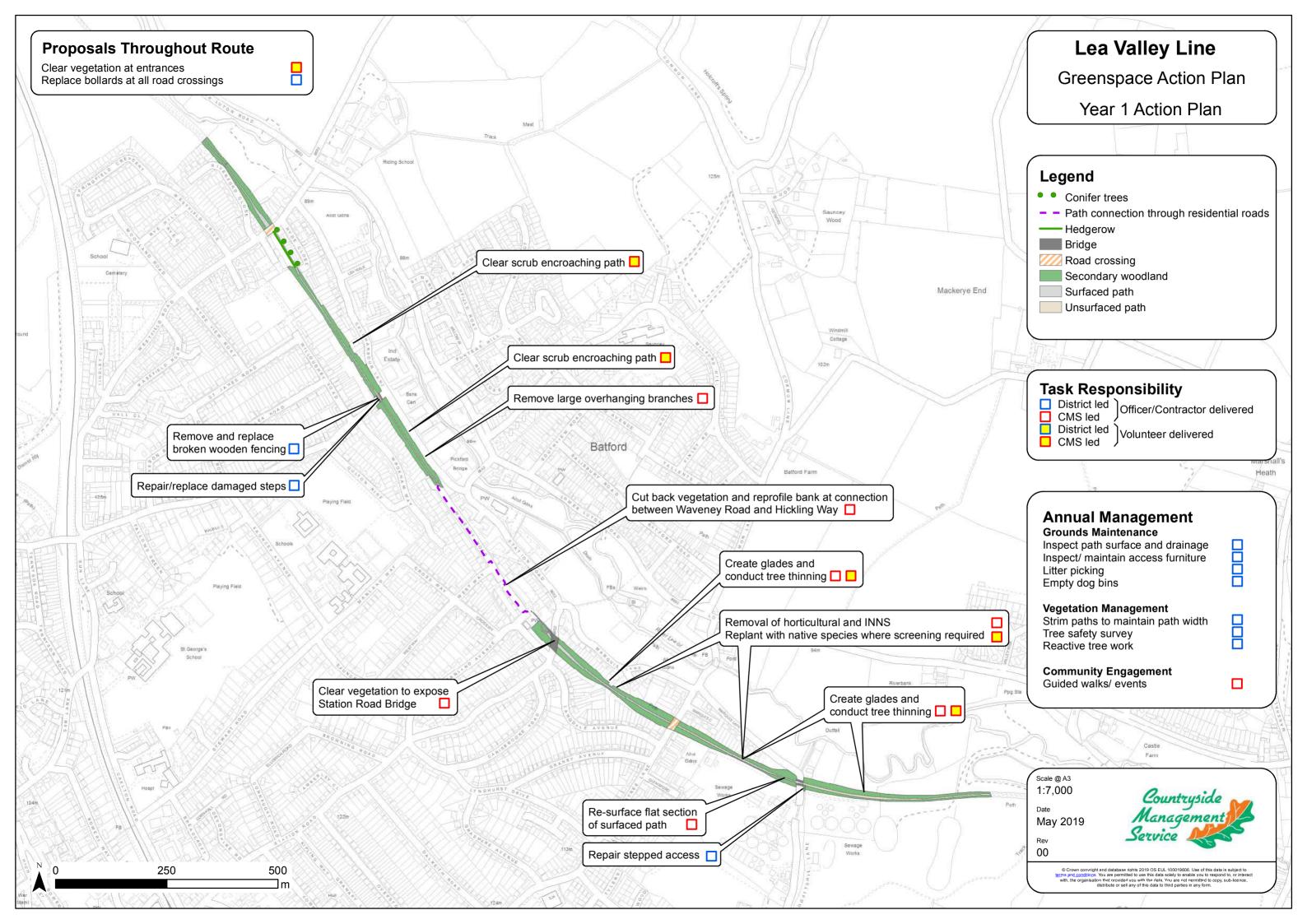
5.1 ANNUAL AND REGULAR ACTIONS

Ref no.	Action	Obj. Ref	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
0.1	Carry out an annual inspection of surface, drainage and signage and identify any maintenance requirements	B5, B6	Annual	SADC	JOC	GM Budget	Internal Resource		
0.2	Remove any graffiti or fly tipping when reported	B6	Ongoing	SADC	JOC	GM Budget	Internal Resource		
0.3	Carry out small scale vegetation management as required	В6	Ongoing	SADC	JOC	GM Budget	Internal Resource		
0.4	Carry out regular vegetation cutting to maintain useable path width	B6, B1	Ongoing	SADC	JOC	GM Budget	Internal Resource		
0.5	Promote the Lea Valley Line using social media and promotional events/ press releases	B3, E2	Ongoing	CMS	CMS	N/A	Internal Resource		
0.6	Maintain newly installed benches along the route	B1	Ongoing	SADC	JOC	GM Budget	Internal Resource		
0.7	Seek external funding to implement GAP	F1, F2	Ongoing	CMS	CMS	N/A	Internal Resource		
0.8	Maintain newly installed signage at all entrances	A2	Ongoing	SADC	JOC	GM Budget	Internal Resource		
0.9	Conduct tree risk/ health survey	C4	Every 3 years	SADC	Contractor	Internal Resource	N/A	S2	
0.10	Conduct reactive tree works to address any safety issues	B4	Ongoing	SADC	Contractor	Internal Resource	N/A		
0.11	Engage volunteers where appropriate in practical conservation and heritage projects	E1	Ongoing	CMS	CMS, SADC	Internal Resource	N/A		

5.2 YEAR 1 2019 - 2020

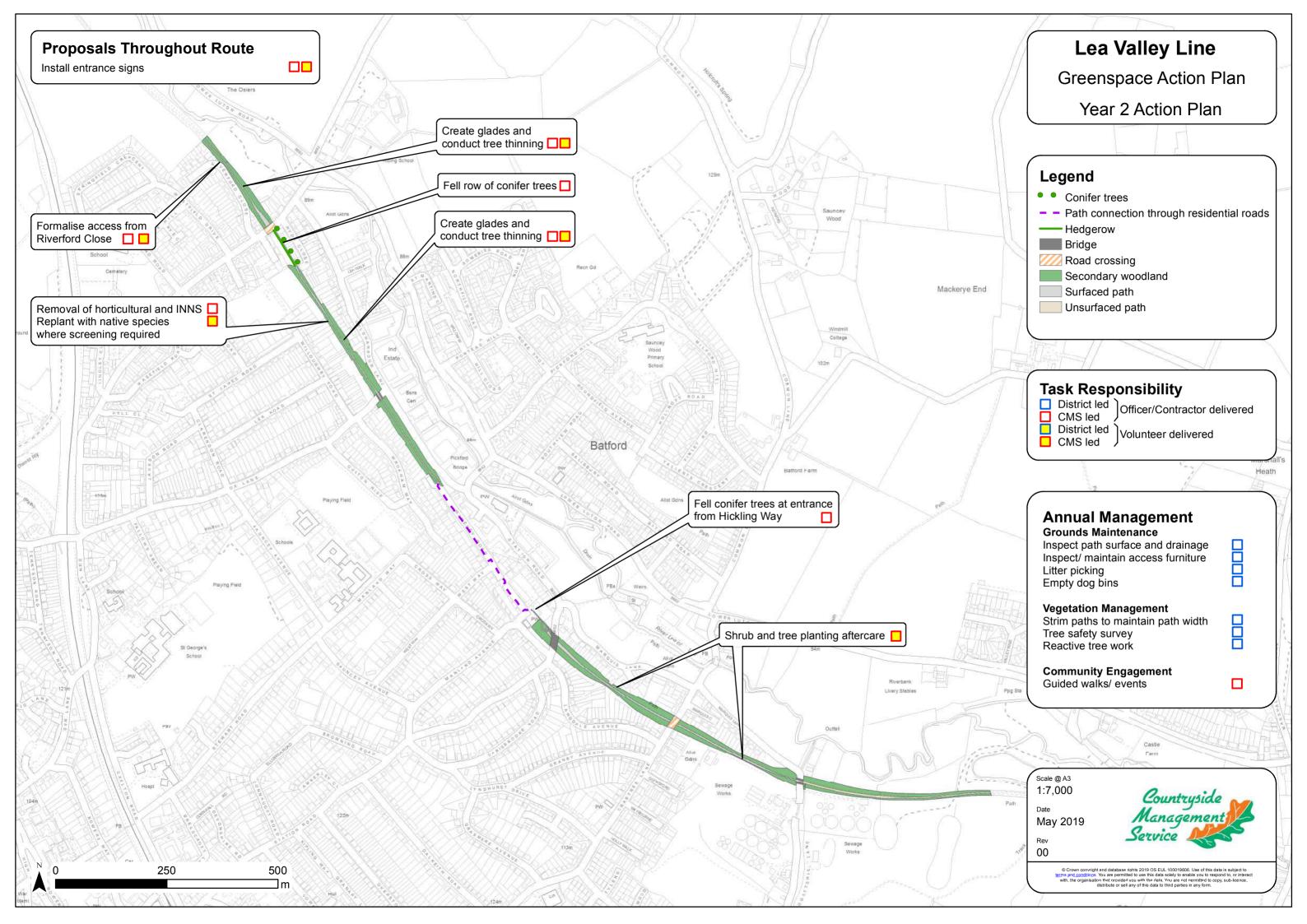
Ref no.	Action	Obj. Ref	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
1.1	Remove and replace broken wooden fencing adjacent to Ox Lane Bridge	B2	May	SADC	Contractor	SADC	£300		
1.2	Replace damaged step at Ox Lane Bridge	B2	May	SADC	Contractor	SADC	£500		
1.3	Replace bollards at all road crossings	B2	June	SADC	Contractor	SADC	£5000	S7	
1.4	Improve steps at Marquis Lane Bridge	B2	June	SADC	Contractor	SADC	£1500		
1.5	Resurface flat section of surfaced path adjacent to Marquis Lane Bridge	B1, B5	July – August	CMS	Contractor	External	£1000		
1.6	Clear scrub encroaching on path between Waveney Road and Westfield Road	B5, B6	October	CMS	Volunteers	Officer Time	N/A	S1	
1.7	Cut back vegetation, re-profile bank and install bollards to improve the connection between Waveney Road and Hickling Way	A2, B3	October	CMS	Contractor	SADC	£2000	S1	
1.8	Phased removal of INNS and horticultural species along the route	C3	October	CMS	Contractor	SADC	£2500	S3	
1.9	Where screening to properties is required, replant removed INNS and horticultural species with native hedge and shrub species	C1	November	CMS	Volunteers	SADC	£500		
1.10	Clear vegetation around entrances and formal access points	B2. B6	November	CMS	Volunteers	Officer Time	N/A	S1	
1.11	Conduct tree thinning within secondary woodland between southern end of route and Station Road Bridge	C1, C2, F4	November	CMS	Contractor	External	£10000	S2	
1.12	Clear vegetation to expose Station Road Bridge	D1	November	CMS	Contractor	External	£3000	S2	

1	Remove large overhanging branches	B/I	December	CMS	Contractor	SADC	£1500	52	
'-	between Waveney Road and Ox Lane Bridge	В4	December	CIVIO	Contractor	SADO	21300	32	



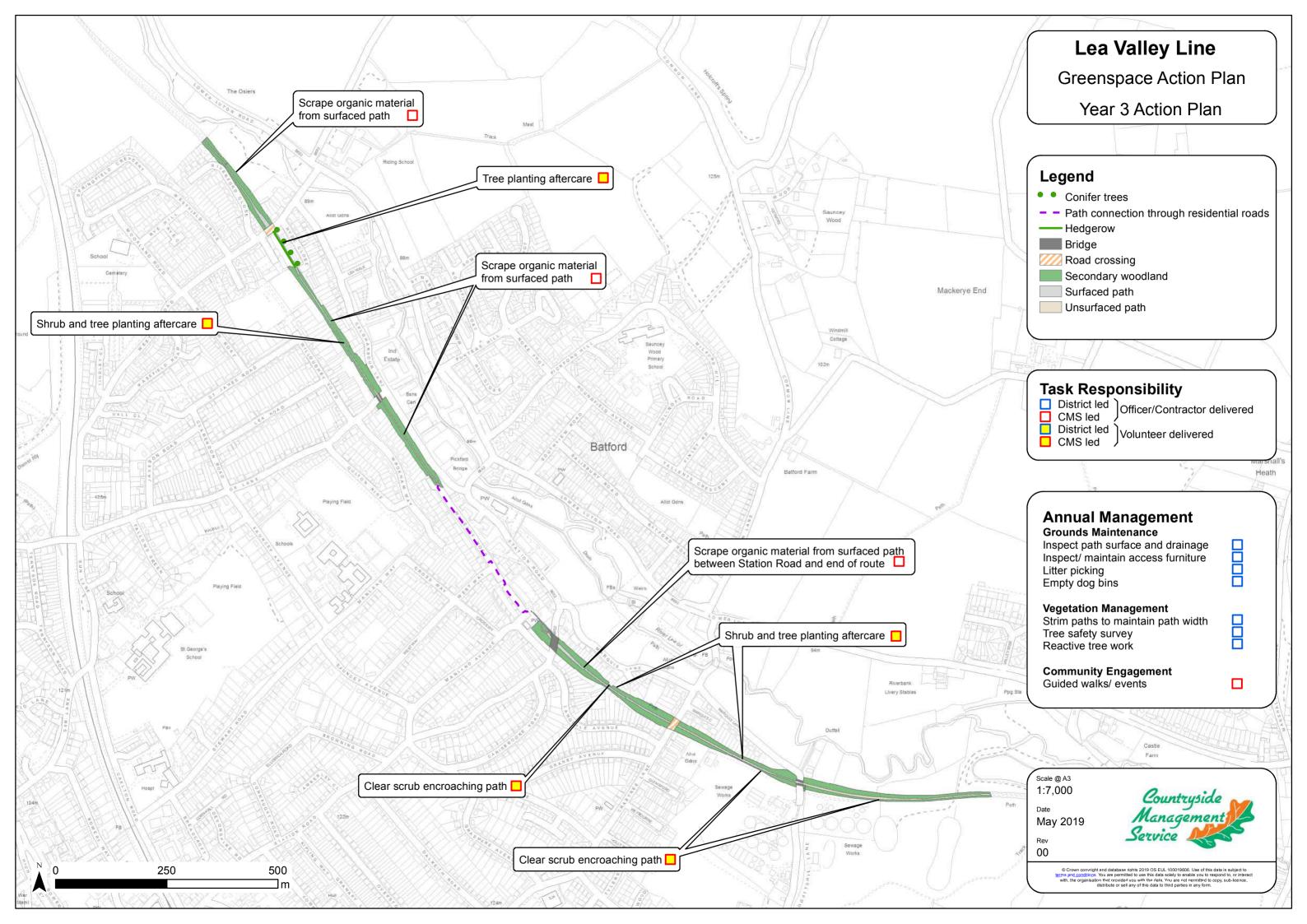
5.3 YEAR 2 2020 - 2021

Ref no.	Action	Obj. Ref	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
2.1	Shrub and tree planting aftercare	C1	Spring/ Summer	CMS	Volunteers	Officer Time	N/A		
2.2	Formalise access from Riverford Close – install steps and clear surrounding vegetation	B1, B2	October	CMS	Volunteers	Officer Time	N/A		
2.3	Phased removal of INNS and horticultural species (snowberry and laurel) along the route		October	CMS	Contractor	SADC	£2500	S3	
2.4	Where screening to properties is required, replant removed INNS and horticultural species with native hedge and shrub species	C3	November	CMS	Volunteers	External	£500		
2.5	Fell conifers at the entrance from Hickling Way	A2	November	CMS	Contractor	External	£1500		
2.6	Fell row of conifers along hedge line from Westfield Road entrance	A2	November	CMS	Contractor	External	£5000		
2.7	Conduct tree thinning within secondary woodland between Ox Lane Bridge and Riverford Close	C1, C2, F4	December	CMS	Contractor	External	£10000	S2	
2.8	Design a logo for the Lea Valley Walk	A2	2020	CMS	Contractor	External	£500		
2.9	Design and produce entrance signs, shared use signs and waymarking	A2	2020	CMS	Contractor	External	£5000	S5	
2.10	Install entrance signs and waymarks	A2	January 2021	CMS	Volunteers	Officer Time	N/A	S5	



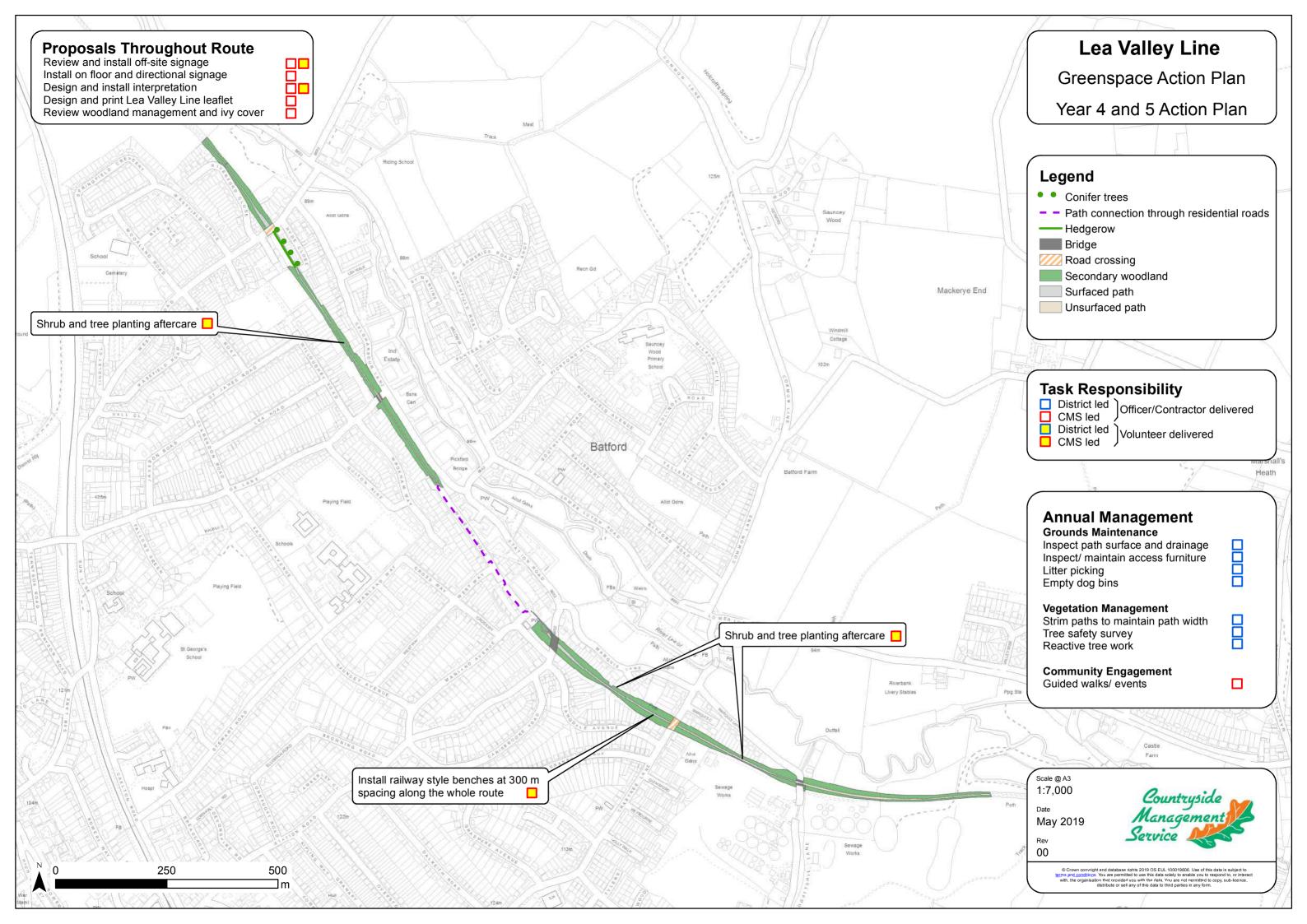
5.4 YEAR 3 2021 - 2022

Ref no.	Action	Obj. Ref	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
3.1	Shrub and tree planting aftercare	C1	Spring/ Summer	CMS	Volunteers	Officer Time	N/A		
3.2	Scrape back organic material from surfaced path between the following locations: Ox Lane Bridge and northern end of route and Station Road and southern end of route	B1, B6	July – August	CMS	Contractor	External	£3000		
3.3	Clear scrub encroaching on path between South eastern boundary and Station Road		October	CMS	Volunteers	External	£1000	S1	



5.5 YEAR 4 - 5 2022 - 2024

Ref no.	Action	Obj. Ref	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
4.1	Tree planting aftercare	C1	Spring/ Summer	CMS	Volunteers	Officer Time		N/A	
4.2	Install railway style benches at 300 m spacing along whole route	B1, B3	May 2022	CMS	Volunteers	SADC	£3000	S7	
4.3	Review and install off-site signage	B1, B3	June 2022	CMS	Volunteers	SADC	£1000		
4.4	Install on floor signage and directional signage	A2,B1, B3,B5	June 2022	CMS	Contractor	SADC	£3000	S5	
4.5	Review woodland management operations and ivy cover	C1, C2, F4	July 2022	CMS	CMS	Officer Time		N/A	
4.6	Design and install interpretation	A1, D2	July 2022	CMS	Contractor	External	£5000	S6	
4.7	Design and print the Lea Valley Line Leaflet	B1, B3	July 2022	CMS	Contractor	External	£2000	S6	



S1. Path Side Vegetation

A universal, minimum standard of maintenance along the whole length of the Harpenden section of the Lea Valley Line will be established. This will keep the useable width of the path and entrance/ egress points free from encroaching vegetation, as well as around benches and signage.

Clearance of encroaching trees and scrub

a. Maintain a minimum of 4 m height and 1 m margins on either side of the surfaced path free from encroaching vegetation. This includes all access points to the route (see Diagram 1).

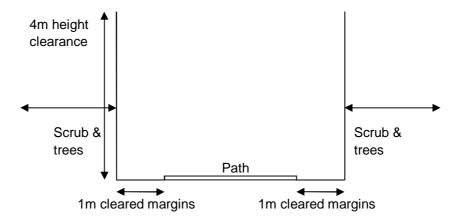


Diagram: Minimum standard of maintenance along the route.

S2. Woodland Management

Tree Safety Surveys

The safety of users is of primary importance to SADC. Formal tree safety surveys are undertaken every three years; any works identified by the surveys will be addressed as a matter of urgency. The tree inspection captures locations of all trees, inspects their condition and provides professionally supported recommendations for required tree work. The recommendations relate only to risk and not to issues of nuisance or aesthetics. Each inspection will take into account the risk factors relating to condition and targets (proximity to public footpaths etc) and project the date for the next inspection accordingly. That way we are able to prioritise inspections to those trees which potentially present the highest risk.

Glade creation, thinning and removal of overhanging branches

The woodlands require thinning as the trees have become tall and spindly due to competition for light. Thinning will protect the older trees from becoming over shaded, and will encourage the development of a diverse woodland canopy. This will also allow light to reach the woodland floor, encouraging ground flora and an understorey of small plants, shrubs and trees to thrive, creating a more diverse structure. Thinning will give the remaining trees more space to develop and will break up any uniformed pattern that may be emerging.

a. Selectively thin the woodlands (maximum 20 %) in areas of heavy shade along the route.

- b. Trees to be marked individually for removal, targeting less healthy or less desirable species such as sycamore and ash and halo-thinning around oaks to aid their development.
- c. Substantial overhanging branches are to be removed; these will also be marked individually.
- d. All of the cut material to be removed from the site.
- e. Tree works to be undertaken between November and February to avoid bird nesting season, unless tree risk management inspections stipulate otherwise.

Coppicing

Coppicing is a traditional method of woodland management where understorey trees are cut low to the ground and allowed to re-grow in a multi-stemmed form. Periodic cutting boosts the trees growth and coppiced trees in their various stages of growth provide a great variety of habitats for animals, birds and butterflies.

- a. Coppice scrub alternating between the north and south sides of the route.
- b. Cut stems sloping towards the outside of the stool to shed rainwater.
- c. Aim for a period of rotation of 25 years to maintain this habitat.
- d. All cut material to be removed from the site.
- e. All scrub work to be undertaken between November and February to avoid bird nesting season.

S5. Clear vegetation to expose Station Road Bridge

- a. Clear all trees and scrub within 5 m of Station Road bridge, on both south-east and north-west sides.
- b. Clear all vegetation from the sides and top of the bridge, including all ivy, taking care not to damage the brickwork.
- c. All cut material to be removed from the site.
- d. Tree works to be undertaken between November and February to avoid bird nesting season

S3. Invasive Non-Native Species

Invasive non-native species (INNS) have the characteristics to spread rapidly and become dominant within an area. This can negatively impact native woodland flora. INNS and horticultural species are to undergo a phased removal throughout the woodland area, to prevent further spreading. Laurel, snowberry and leatherleaf viburnum are present on site.

S4. Disposal of Rubbish

All non-organic material collected on site to be disposed of by Council contractor unless otherwise stated.

S5. Signage

New Rights of Way and Sustrans signage will follow the already established specification for these styles of sign. Where the route is shared with the Lea Valley Walk, signage will include the established Swan Logo. A design for entrance signage and waymarking will be established and deployed across the site, reflecting the railway history of the route. Consideration into the type and design of signage will relate to the entrance size and type.

S6. Interpretation

Traditional orientation type interpretive signage will be employed where appropriate along the route. Additional interpretative material may be installed along the route where appropriate in the form of panels and/ or art work.

Logo

Design a logo for the Lea Valley Line, reflecting the history of the route as a railway line. Logos produced for the Alban Way and Nickey Line can be used as examples.

Orientation panels

Design and produce two A2 orientation panels which provide information for visitors on the route of the Lea Valley Line along with its key features, and provide PDF version of the same

- a. Panels to be identical with the exception of the 'you are here' marker.
- b. To include a full colour hand drawn 3D watercolour map of the Lea Valley Line showing the route and key features.
- c. Text and photographs to be supplied.
- d. Provide two proof stages of full colour design in hard copy and PDF format.
- e. Supply two lectern frames in green powder-coated stainless steel, twin leg, incorporating a GRP panel.
- f. Deliver to CMS for installation by volunteer

Interpretation panel

Design and produce one A2 interpretation panel featuring historic photos of the former Harpenden East Train Station and platform.

- a. Text and photographs to be supplied by the customer.
- b. Provide two proof stages of full colour design in hard copy and PDF format.
- c. Supply one lectern frame in green powder-coated stainless steel, twin leg, incorporating a GRP panel.
- d. Deliver to CMS for installation by volunteers.

Lea Valley Line leaflet

- a. Design a map-based site leaflet for the Lea Valley Line
- b. Images and text to be provided.
- c. To be double sided, full colour and gate folded with seven sides to DL.
- d. Provide two proof stages of full colour design in hard copy and PDF format.
- e. Print 5000 copies on 130gsm recycled paper or similar and deliver.

S7. Furniture

A single style of bench and bollards will be established, with links to the history of the site and this will then be rolled out where appropriate along the route.

Install bollards

- a. Remove any existing access control furniture at entrances from roads.
- b. Install wooden bollards across the full width of each entrance with a spacing between posts of 1500 mm.
- c. Posts to be pressure treated softwood, 1600 mm long and 100 mm square, with four way weathered tops and incorporating yellow reflective band.
- d. Posts to have 1000 mm above the ground after installation, and to be fixed in concrete. Lockable bollards to be installed where vehicle access is required.

Design and install traditional railway-style benches

- a. Establish a single style of bench, linked to the railway history of the site and the Lea Valley Line branding.
- b. Install new bench at 300m spacing

S8. Surfacing

Improvements will be made to the surfaced route in order to prevent the pooling of water, and to maintain the width of the path.

Resurfacing

To improve drainage of the surfaced route adjacent to Marquis Lane Bridge, the camber of the path is to be increased, by building up the path surface.

The crushed stone-surfaced section of the route, south of the bridge over Marquis Lane, will be surveyed annually and re-dressed as required.

Scraping organic material

Mud and leaf litter will be removed from the Lea Valley Line in order to improve the surface and maintain the usable width of the path. The accumulation of soil is not consistent along the route, some sections will require only very limited work.

- a. Scrape off accumulated soil, leaf litter and other organic debris to take path back to the original surfaced width or to the grass verge, whichever is narrower. Take care to minimise damage to that surface.
- i. In cuttings, collect spoil and remove it from the site, disposing of it in a safe, appropriate and legal manner.
- ii. Along flat sections and on embankments, spoil may be spread evenly on either side of the path. Take care not to deposit spoil on the grass verges, in locations where it is likely to wash back onto the track, or on banks where it is likely to wash out onto other land holdings.
- iii. Regrade and roll existing surface material as necessary to leave an even and firm finish.