Duke's Head Passage

Path Upgrade Feasibility Study

February 2017

sustrans
JOIN THE MOVEMENT

About Sustrans

Sustrans makes smarter travel choices possible, desirable and inevitable. We're a leading UK charity enabling people to travel by foot, bike or public transport for more of the journeys we make every day. We work with families, communities, policy-makers and partner organisations so that people are able to choose healthier, cleaner and cheaper journeys, with better places and spaces to move through and live in.

It's time we all began making smarter travel choices. Make your move and support Sustrans today. www.sustrans.org.uk

Head Office
Sustrans
2 Cathedral Square
College Green
Bristol
BS1 5DD

Table of contents

1 Introduction

1.1 Background to this Report

Duke's Head Passage is an historic path running from Hampton Village High Street into Bushy Park in the London Borough of Richmond upon Thames in west London. In summer 2016 restrictions were introduced which prevent people from riding a bicycle on the path in response to reported 'near misses' between cyclists and pedestrians.

Sustrans has been commissioned by the London Borough of Richmond upon Thames (LBRT) Council, to conduct a study of the Duke's Head Passage, in collaboration with The Royal Parks. The aim of this study is to establish the extent of any improvements to the Passage that might be required to allow the path to be re-established as shared-use path for both pedestrians and cyclists.

This report sets out the findings of the study and makes recommendations on a range of potential interventions which might be made to the path to improve the quality for all users. The scope and approach are described below and the following chapter gives a brief description of the path. Chapter 3 then sets out an assessment of the current conditions, constraints, and some suggestions for potential improvements, and the final chapter presents delivery options and recommendations.

1.2 Scope and Approach for the Study

This study covers the length of the Duke's Head Passage from the public highway at Hampton Village High Street to the gate where the path emerges into the open area of Bushy Park, which is approximately 550m in length.

An inspection of the passage was conducted on 5th December 2016 by a Sustrans Senior Engineer, Senior Ecologist and Infrastructure Deliver Manager with officers from The Royal Parks and Richmond Council. The purpose of the inspection was to assess current conditions and identify constraints and potential areas for improvement, with particular focus on suitability for the path to be used by both people on foot and people on bikes.

This initial feasibility study does not include a full Preliminary Ecological Assessment. However, we have flagged against each recommendation where an ecological impact might be expected and where further assessment would be required from The Royal Parks ecology team prior to any construction works. Given the historic nature of the path it is possible that an archaeological assessment may be required for any more substantial changes.

As the path is unlit and completely off-highway, utility searches have not been undertaken for this initial feasibility study.

2 Duke's Head Passage

2.1 Location and context

Bushy Park is located in the east of the London Borough of Richmond upon Thames between Hampton Village, to the west, Hampton Wick, to the east, and Hampton Court to the south. Duke's Head Passage provides access into the western side of Bushy Park from Hampton Village High Street. For people on foot and on bikes it also provides the most direct and quickest route from Hampton Village into the park and onwards to Kingston, Teddington, and Hampton Court.

The park is designated Grade I on the Historic England Register of Historic Parks and Gardens for its special historic interest.

As one of eight public parks in Greater London owned by the Crown, Bushy Park and the Duke's Head Passage are managed by The Royal Parks.

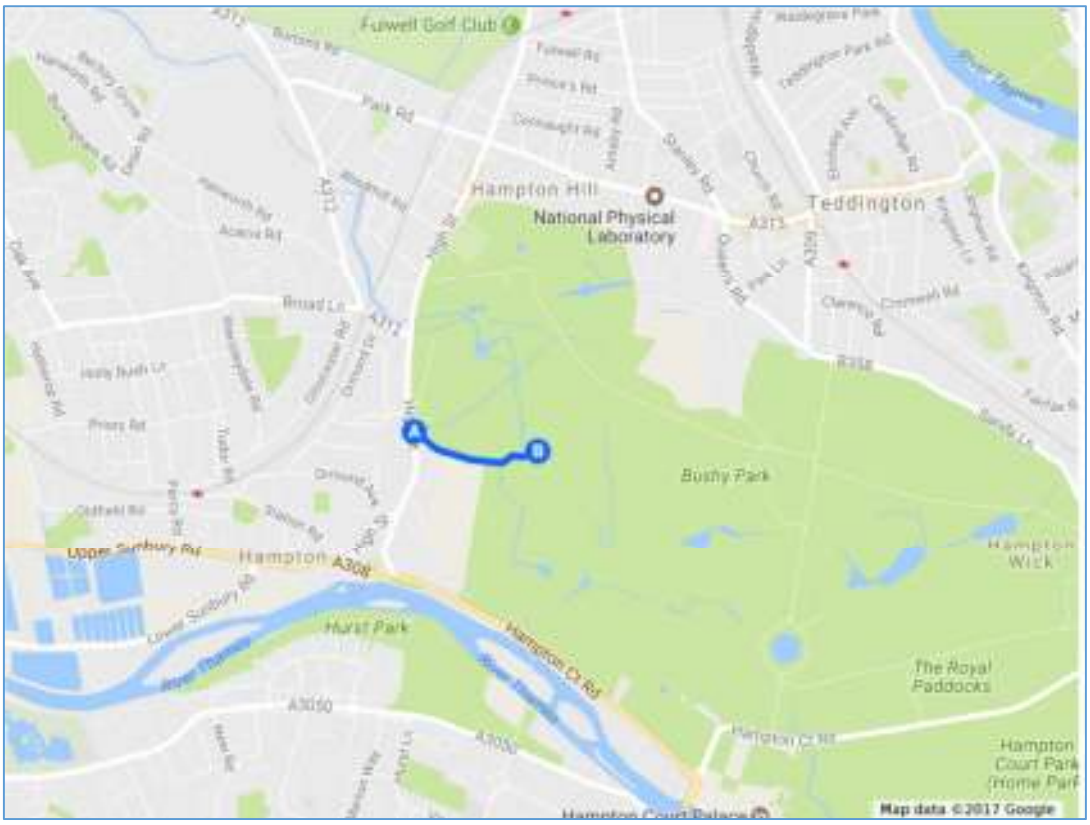


Figure 1 The alignment of Duke's Head Passage from west (A) at Hampton Village to east (B) in Bushy Park

Historical Context

The Duke's Head Passage forms part of a longer route, known as Cobbler's Walk, which runs across Bushy Park towards Hampton Wick. This path dates back to the 1700s and is named after a local shoe maker who led a successful campaign to establish the right for the public to use the route after the 2nd Earl of Halifax had effectively closed this, and other paths, when the park was enclosed within a wall. As a consequence the path is designated as a public right of way as a footpath.

Recent developments and concerns

Although the passage has not at any point been a designated cycle path it has been used as a cycle route on a regular basis by many local people for a number of years.

However there have recently been two reported incidents of 'near misses' between pedestrians and cyclists. This prompted a review of the suitability of the current condition and configuration of the path for shared use between pedestrians and cyclists, which has led to the introduction of signage prohibiting cycling on Duke's Head Passage.

The availability of this path is particularly valued by cyclists and there has been considerable local opposition to the introduction of the prohibition of cycling along the passage as alternative routes between Hampton Village and Hampton Wick are significantly longer and less pleasant. There are also concerns for the increased hazard for cyclists now diverting on busy main roads around the park particularly along the A308. Many people find this diversion unsuitable for cycling and may choose not to cycle.

Specific issues identified with the current condition and configuration of the path include:

- Narrowness of the surfaced path
- Overgrown vegetation further restricting the effective width of the path
- A number of 'blind' corners along its length
- Narrow bridge over the Longford River
- Wash of loose material, in the area adjacent to the Longford River, from the bank onto the path making the path slippery and dangerous to cyclists
- Condition of the path surface has deteriorated adjacent to the Longford River

Environmental and Ecological Considerations

Duke's Head Passage lies within Bushy Park and Home Park SSSI. The special interest of this park is its veteran trees and their associated fungus and invertebrates, mostly within wood pasture habitat, and also the lowland dry acid grassland. The large number of very mature hawthorns on site are also of interest. The passage specifically lies within or adjacent to Units 2, 3 and 4 of this SSSI. These units are all listed as being dominated by acid grassland and being in unfavourable but recovering condition. Issues in all three units are the levels of shading, the amount of deadwood, compaction of root zones and low quantities of fungi. A species of gnat, new to science, *Grzegorzekia bushyae*, has also been recently discovered in the Waterhouse Woodland Gardens adjacent to the passage. Little is currently known about this gnat but it is thought to be associated with woodlands and fungi.

Further Constraints

In addition to the ecological sensitively of the area around the passage any proposed changes to the passage must be sensitive to the heritage of the landscape, for example iron work features of the gate and bridge. In addition the age of the hedges is likely to be great and therefore of potential archaeological interest.

Bushy Park also provides one of the few night time dark spaces within London so it is intended that the passage would remain unlit.

Legal Considerations

In addition to the highway regulations which apply to the use of the path as public right of way, there are also specific statutory procedures which apply to Bushy Park, namely The Royal Parks and Other Open Spaces Regulations 1997. These apply to and regulate the conduct of persons using all the parks, gardens and other land under the control or management of the Secretary of State, which includes Bushy Park.

Royal Parks Walking and Cycling Technical Design Guidance

Interventions will need to be developed in accordance with The Royal Parks' *Walking and Cycling Technical Design Guidance*, which contains policies strategies and technical guidance applicable to any developments across the Royal Parks estate.

2.2 Overview of the passage

Described from west to east, the passage starts from the public highway at the High Street near Hampton Pool in Hampton Village. The first 18m section passes between the old pub 'The Duke's Head' and the building of a motor repair business. This is approximately 3 to 4m wide with a hard (concrete) surface.

Hampton Village Gate

The path enters Bushy Park through an old wrought-iron gateway (approximately 1m clear width) which is part of the historic feature of the park.

Western section of the path

The first section, approximately 70m, of the path beyond the gate has a sealed, tarmac, surface approximately 2.1m wide with about 0.3m soil/leaf litter on either side giving a width between fences of approximately 2.7m. The path is bounded on the left-hand (north) side by a wrought iron fence which ties into the gateway, and on the right (south) side by a chestnut picket fence. Both fences are approximately 1m in height. Behind these on both sides is a taller deer fence separating the path from the adjacent areas of the park - Hampton Pond outdoor swimming pool to the north and Waterhouse Woodland Gardens to the south.

Continuing east for about 300m the sealed surface path is 2.0m wide, bounded on either side by hedgerows (approx. 3.5m apart) and with the deer fences continuing behind. There is also a drainage ditch running along the southern side of the path, which directs water towards the Longford River during flood events.

At approximately 70m before the river there are gates on either side of the path, which are used occasionally by park ranger vehicles to cross over the path.

Longford River Bridge

The path then crosses over the Longford River via a Victorian era iron bridge. The bridge has a 1.65m width between iron parapets with wooden slatted deck. Short concrete ramps with handrails (added around 2004) provide access to the bridge. These are both more constrained than the bridge span with a clear width of 1.36m. The west ramp is straight onto the bridge, the east ramp turns through 90 degrees to enable the path to follow the river at this point.

Alongside Longford River

The path then runs alongside the river for approximately 100m. There is a surfaced path running close to the hedge, away from the river, with a second informal/unsurfaced path along the top of the river embankment. The river bank on this side has steel sheet piles throughout this section indicating possible previous erosion issues.

Eastern section of the path

Leaving the river bank the path bends eastward with a final, straight section of about 60m through a corridor enclosed by a line of trees/hedge and high wooden deer fences (~1.5m) on either side. The surfaced path between the tree lines is approximately 3m although the usable width is reduced by growth in spring/summer. Total corridor width between the enclosing fences is approximately 5m.

At the far end, where the path joins the rest of the park there is a gate for public access to The Woodland Garden (south side of the passage).

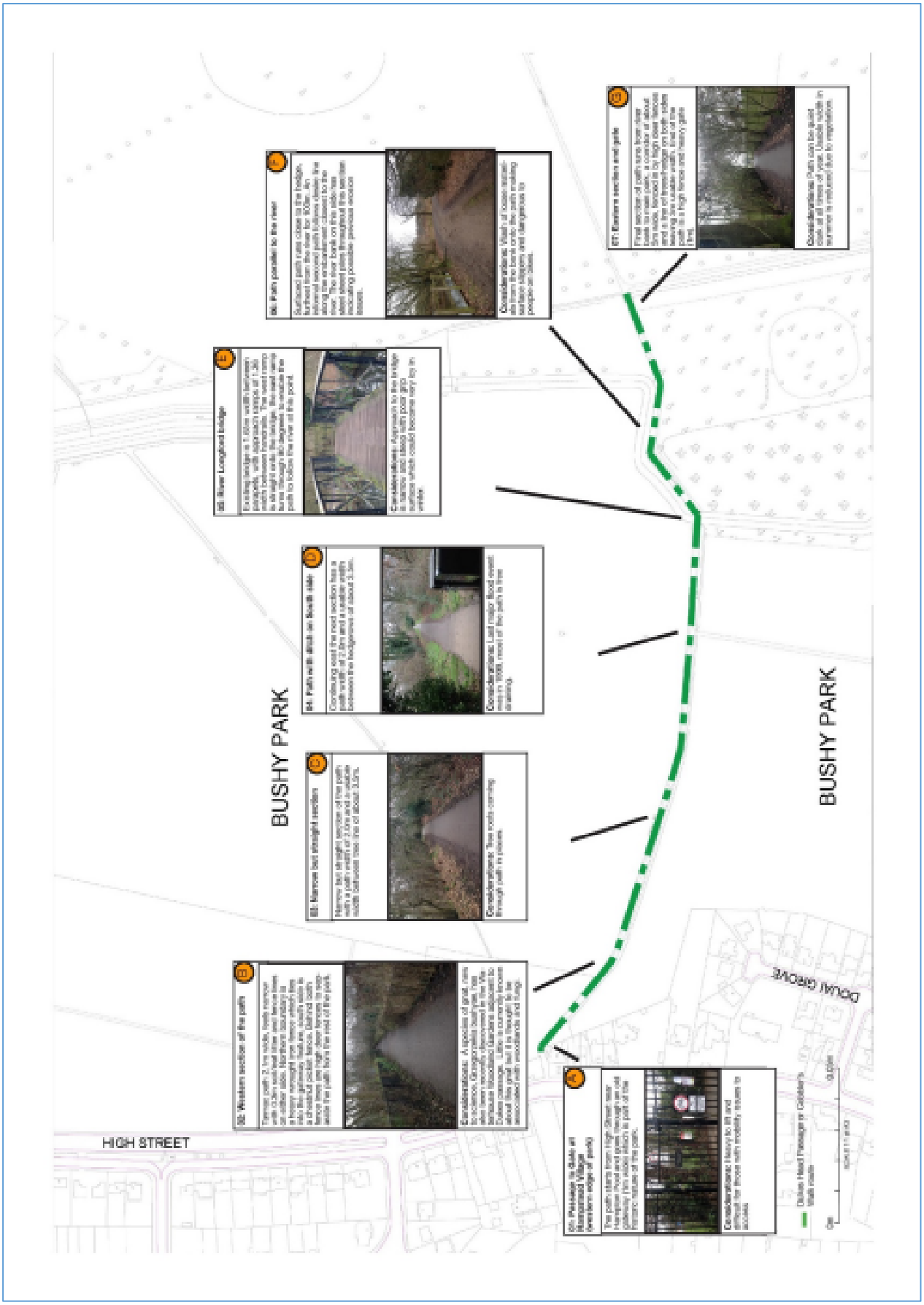
Gate to park

The end of the path is a high fence and heavy gate (approximately 1.2m clear width), which leads into the main body of the park. The fence and gate are in place to prevent deer from entering Duke's Head Passage from the park.

Path surface

The path has a sealed surface throughout, although most of it is covered in soil run-off from the edges and leaf litter breakdown and the underlying tarmac is in generally poor condition, particularly alongside the river. The path is currently maintained by hand, at infrequent intervals throughout the year.

Figure 2 Scheme Map of Duke's Head Passage showing current conditions



3 Current Conditions and Options for Improvements

3.1 Assessment of Current Conditions and Configuration

Hampton Village Gate

The gate to Duke's Head Passage is both narrow and heavy. This makes it difficult to negotiate for people with bikes, pushchairs, wheelchair users or for people with reduced mobility.

Western section of the path

The limited usable width of the surfaced path, low hanging branches and overgrown shrubs create an enclosed space which feels narrow and could be too constrained for small groups (three or more) if others on bikes are approaching or wishing to pass. In some locations there are tree roots breaking through the path, which further constrains the available path width, particularly for people with reduced mobility.

The first section (approx. 70m) is relatively straight with clear sight lines. Beyond this is a slight bend in the path which restricts vision and prevents early sight of people approaching from the opposite direction. Sight lines are further impeded by the density of vegetation.

The next section (approx. 300m) is also relatively straight with a narrow 2m wide surfaced path. The path is enclosed by a hedge on the north side and a drainage ditch on the south side, again making it difficult for groups walking along the path or cyclists to pass one another. At points this edge of the path is quite abrupt, presenting a potential slip hazard. However due to the straight nature of this section the sight lines are relatively good and users can see one another approaching, with limited points to pass each other.

Longford River Bridge

The bridge over the Longford River creates the most significant pinch point along the passage, via a Victorian era iron bridge. The bridge has a 1.65m width between the iron parapets, which do not meet current design standards. The wooden slatted deck has no anti-slip surfacing, adding an extra risk in wet conditions.

The gradient of the access ramps on either side of the bridge is relatively steep for people with reduced mobility. As the ramps are short they may be manageable, though not comfortable for some wheelchair users but may cause an obstacle for others. The surface is not slip resistant so could present a slip hazard in winter/icy conditions.

The west ramp is straight onto the bridge, the east ramp turns through 90 degrees to enable the path to follow the river at this point.

Alongside Longford River

The path which runs alongside the River Longford is barely discernible with the surface in poor condition and a second, informal, muddy path has been formed by people choosing to follow the higher, drier ground directly adjacent to the river. This has led to a large area of ground covering vegetation being trampled on, leaving much of the space as bare earth which is easily eroded.

Eastern section of the path

The path along the final, most eastern section, passes through a corridor formed by two lines of trees. When in leaf, the trees form a canopy enclosing the path which leaves this section quite dark throughout the year. The path opens up and feels wider towards the gate where the passage re-joins the rest of the park.

Gate into park

The gate from Duke's Head Passage into the open park is quite heavy. Although slightly wider and easier to negotiate than the gate at the Hampton Village end of the path, it is still difficult for people with bikes, pushchairs, wheelchair users or for people with reduced mobility.

Concerns about speed of cyclists

There have been reported concerns about people on bikes cycling too quickly for the comfort of others. This reduces actual and perceived safety of users, particularly pedestrians and dog-walkers, as it creates anxiety about potential collisions and can mean people are not given enough time to make themselves comfortable about somebody passing on a cycle.

Summary

On some stretches the path feels narrow and restricted as there are fence lines on the edge of the tarmac path.

There are four specific locations where 'blind corners' are created and sight lines are greatly reduced by bends and the growth of the path-side vegetation. This restricts vision and prevents early sight of people approaching from the opposite direction, which reduces comfort levels, particularly for pedestrians when there is limited space to move out of the way. It also means that people approaching on bikes have less time to position themselves to avoid other path users, i.e. to act, and been seen to be acting, considerately. Together this can create unnecessary situations of actual and apparent conflict.

While the narrow gates and bridge over the Longford River are the most significant restrictions to capacity of the path, they are also significant, interesting features and attractions of the passage. Sight lines on the approach to and from the bridge are clear in both directions so it is easy to see when people are coming in the opposite direction. There is also space to wait to allow others to finish crossing if there is not enough room on the bridge to allow groups to pass comfortably.

3.2 Options for Improvements

Modification to gates

The gate at the western end of the path is a heritage feature and it also helps control access of animals into the passage. Any modifications must be sensitive to its appearance and context.

The gate at the eastern end of the path plays an important role in keeping deer in the open park and out of the ecologically sensitive areas around the passage.

By preference gates and path constrictions should have a minimum clear width of 1.5m to make them comfortable to negotiate for people in wheelchairs. This would meet best practice for disability access standards and is a good practice for cycle access. The gate into the park could be modified, however changing the width of the gate at Hampton Village would be more difficult to retain its appearance and may require planning consents if it is a grade listed architectural feature.

It may be possible to modify the gates, for example to add counter weights, to make them easier to open.

Ecological Considerations

This intervention would have no direct impact on ecological features.

Western section of the path

Management of vegetation

Pruning shrubs and low overhanging branches may fall within the current management agreement that The Royal Parks already have with Natural England (NE) and would therefore require no additional consent, but should be conducted in an ecological appropriate manner e.g. outside of the bird nesting season. More significant changes to the habitat management that fall outside the current agreement will need consent from NE.

In addition, hedge laying would address overhanging and over-shading issues.

Set back fence lines

Remove/set back the chestnut fence on the south side of the path and/or the iron fence on the north side to make the path feel more open even if public access remains restricted to the path by vegetation – laid hedge or similar. Look at ways of opening up the path to enable tractor and flail maintenance.

Ecological Considerations

Setting back the fence lines would require NE approval. The ecological impacts will need to be assessed. Whilst the habitat disturbance from moving the fence is likely to be minimal, in the long-term it may have the impact of introducing disturbance and fouling from dogs in the previously inaccessible verges. Existing information may be sufficient to make such an assessment but specialist advice may be required, for example in relation to potential impacts on invertebrates and fungi. Consideration should be given to whether the existing fencing along the passage can be modified to allow the movement of wildlife across the landscape as an ecological enhancement.

Figure 3 Western section of the path [Section B in Scheme Map]

Widen path alongside ditch

It would be possible to widen the path on this 300m section by at least a metre by raising the ditch area level with the existing path, using a 'no-dig' construction method. A permeable sub-base using a cell-web open geotextile type of material or large angular stone fill would allow continued conveyance of water in the drainage ditch. Additional piping may also be added although the gradient of the ditch would not prevent silt build up within the pipe.

The Royal Parks have indicated that they feel the ditch should remain because of its valuable landscape and ecological function.

Figure 4 Straight section of the path alongside ditch [Section C and D in Scheme Map]

Ecological Considerations

NE consent would be required to infill a ditch and widen the path. An assessment will be required to determine the ecological significance of this feature and the loss of verge habitat. Consultation with NE is recommended and specialist advice may be required to determine whether notable plants, fungi or invertebrates could be affected. The adjacent trees and hedgerow will also need to be protected.

Bridge over Longford River

The principle issues presented by the bridge over the Longford River are caused by the restricted width of the bridge and the steepness, configuration and width of the access ramps. These create the most significant pinch point and the largest obstacle on the path for people with reduced mobility. To address these would require replacing the bridge with a construction with a wider deck which meets modern accessibility standards.

Consideration should also be made to changing the orientation of any new bridge, on the skew to the river channel, to better meet the direction of the path on the east bank. This will allow more space to achieve an acceptable gradient and configuration for the access ramps. Ramps should also be constructed with a nonslip surface.

Any new bridge could have parapets designed to have similar appearance to the existing bridge, suitability modified to meet current design standards (for instance with respect to the size of the gaps in the parapet). The new structure should also retain the deer grate on the upstream side under the bridge as presently, which can be designed to make debris clearance easier.

It is important to establish whether the bridge or the landscape have grade listed status as this will constrain what changes may be made to the structure. Search of Royal Parks and LBRT records have not identified that this is a listed structure, however this need to be verified.

Figure 5 Bridge over the River Longford [Section E in Scheme Map]

Ecological Considerations

Although the footprint of the works are likely to be small, aquatic habitats and associated wildlife can be sensitive to impacts from construction. Ecological assessment would need to take into account any protected or notable species that might be present in this section of the river such as white clawed crayfish or water vole. It is understood that water vole surveys have been undertaken along this stretch of river by volunteers and that a predominantly desk based assessment may be appropriate for protected species. An inspection for notable plant species within the footprint affected by the new structure may be necessary. During works the aquatic habitats and species would need to be protected and Environment Agency (EA) approval may be necessary in addition to NE consent.

As an ecological enhancement of this option, consideration should be given to whether the new structure can allow the access of wildlife along the river whilst also being deer-proof as the current structure appears to form a significant barrier to the movement of all wildlife. There is also the opportunity to design in bat roosting features into the new bridge.

Path alongside Longford River

The path which runs alongside the Longford River is barely discernible and a second, muddy path has been created following the higher, drier ground directly adjacent to the river.

The path by the river is the least distinct and well-formed section and is narrowed by mud and leaf litter. This section could be widened through the management of the vegetation towards the deer fence, (south side - away from the river). The path here could be raised and slightly widened. This would be located over the existing surfaced path, but the levels would be raised to reduce pooling of water in that location and increase its width.

This would then allow the informal path that has developed adjacent to the river bank to be planted up again.

Figure 6 Path alongside River Longford [Section F in Scheme Map]

Ecological Considerations

If situated over the footprint of the existing path, it is not anticipated that construction would cause significant habitat loss. Impacts on the adjacent defunct hedgerow, mature trees, river and any associated protected or notable species will need to be considered.

This intervention will require NE approval and may also require EA approval. If these sensitive features can be protected during construction formalising a surfaced path this intervention would be anticipated to have a positive ecological impact. This is because it will reduce the width of the trampled surface, enable vegetation to grow in the verges, create a buffer of vegetation along the river and reduce trampling of the tree root zones.

Signing for the path

Dependant on the decision to lift the restriction on cycling on Duke's Head Passage:

Replace current signing which prohibits cycling and replace with signing which encourages considerate use of the passage and raises awareness of the need to cycle with care and with consideration for all users. Signing would also communicate that it is permissible to along the path to avoid unnecessary conflict and alert pedestrians and dog walkers that they might expect to meet somebody on a bicycle.

Some examples of suggestion for positive messages and styles of signs that have been used successfully elsewhere are presented in Section 3.3 below.

Alternative Routes - Wayfinding

At the entrances to the passage signing could also inform users of the directions to join the Quietway, which will run nearby through the park, and the destinations that can be reached on this route. By presenting this information about the wider network this provides the option for cyclists heading for destinations beyond Hampton Village to take an alternative route, if that meets their requirements.

Cutback shrubs and low overhanging branches and maintain at B, C, D, E, F, G.

Ecological Considerations

Pruning shrubs and low overhanging branches may fall within the current management agreement that Royal Parks already have with NE and would therefore require no additional consent, but should be conducted in an ecological appropriate manner e.g. outside of the bird nesting season. More significant changes to the habitat management that fall outside the current agreement will need consent from NE. The brash created could be used for minor habitat creation along the passage or in adjacent habitats.

Figure 7 Vegetation and low hanging branches

Open up path to enable tractor and flail maintenance

Ecological Considerations

More significant changes to the habitat management that fall outside the current agreement will need consent from NE. It is likely that sufficient ecological information is already known for this to be agreed without further ecological surveys but consideration should be given to whether notable fungi or invertebrates could be present in this section and affected by the proposal. Ecological notable specimens, such as elm tree, are known to be present along some sections of the passage and should be protected. Consultation with NE will help determine the level of ecological assessment required for consent for changes to the vegetation management prescriptions. Such management would need to be undertaken in line with best practice to protect nesting birds, hedgehogs, notable tree specimens and any other wildlife likely to be present.

The brash created could be used for minor habitat creation along the passage or in adjacent habitats.

3.3 Overview of potential interventions and indicative costs

	Intervention	Plan Ref.	Indicative Cost (£)	Delivery
1	Cutback shrubbery and low hanging branches	B, C, D, E, F, G	2,000 [(a)]	Short Term
2	Signs	A, G	1,200	Short Term
3	Relocate fence lines - Open up path to enable tractor and flail maintenance	B	2,500	Short Term
4	Widen and create formal path away from river edge and resurface.	F	29,300	Medium Term
5	Modifications to gates	A, G	3,000	Medium Term
6	Replace bridge and approach ramps	E	30,000	Longer Term
7	Widen the path by extending over the ditch, including resurfacing the full 3m width	D	91,400	Longer Term

Ecological assessments

Interventions 3, 4, 6 and 7 would require an assessment of ecological impact prior to implementation. Elements of Intervention 1 may require an assessment, depending on scope and scale.

Note on indicative cost estimates

The indicative costs for construction are raw cost estimates with no uplifts applied for project management, fees or contingency. At this stage of project development a contingency of 30% would be advised. Design and management fees would be expected at 10-15% of construction costs.

Note (a): Cost estimate of £2,000 for single implementation. An estimate of on-going cost of works to be undertaken as a minimum three times a year would be £6,000 p.a.

Costs for vegetation management may vary depending on how these works are resourced.

Costs for signs on posts from £150 per sign including post and installation.

Thermoplastic markings price per sign is £195 (minimum size 600x900mm) due to the intricacy of the graphics in terms of the production of stencils and the application of paint.

3.4 Considerate Shared Use Sign Options

Example	Description
	Best practise examples of well worded signs for use on (off-highway) a shared-use pedestrian and cycle paths. Employs a modification of the TSRGD standard diagram 956 to emphasise pedestrians
	Thermoplastic markings for the path itself. Incorporates TSRGD standard diagram 956
	Example from a path in Hadley Wood used effectively to communicate considerate cycling and no access for motorbikes.

4 Options and Recommendations

4.1 Assessment of the Passage

Duke's Head Passage provides a very direct, and for many a pleasant, route from Hampton Village into and across Bushy Park. It also provides a valuable link in the local cycle network, particularly for trips into the park and onwards to Kingston, Teddington, and Hampton Court.

Although constrained at the gates at each end and at the bridge the most significant issues for the comfort of path users occur where the path is constrained and visibility or people approaching is most restricted.

By taking steps to improve the environment at these points the passage could provide a safe and attractive shared–use route for people on foot and on bicycles. This will also help meet strategic objectives of LBRT and by providing the kind of traffic-free environment that is essential to allow more people to choose to cycle for everyday journeys.

Recommended short term options to improve the level of provision of Duke's Head Passage which could be implemented in the short term are summarised in Section 4.2 below.

Recommendations for more substantial interventions that would provide the most benefit and improvement are presented in Section 4.3.

Further longer term options are presented in Section 4.4. These would improve the passage for all users including pedestrians, people on bikes, with pushchairs, wheelchair users and people with reduced mobility.

4.2 Short Term Interventions to Address Immediate Issues

Lower cost improvements to Duke's Head Passage which could be implemented in the short term to address the immediate issues of conflict and improve basic levels of comfort and usability for pedestrians and people on bikes, would include:

- Localised maintenance of overgrown shrubs and low hanging branches to visually widen the path and improve sightlines along the path
- Installation of 'Pedestrian Priority – share with care' signage (or similar) at both gateways to the path
- Widen the path through by relocating the path-side fence at the western end (Hampton Village) of the path

These interventions would take 2-3 weeks and preferably be undertaken before the middle March or after end of August to minimise impact on wildlife habitat and nesting birds.

The estimated costs of this package of short term interventions is: £5,700 with an estimated ongoing maintenance cost of £2,000 three times a year.

4.3 Medium Term Interventions to Improve Comfort of Path Users

More substantial interventions which might be delivered over a 6 to 12 month period would include:

- Raise and resurface the path alongside the river to allow re-growth of grasses and wildflowers adjacent to the river
- Modify the gate structures to make them more accessible for all users

Estimated costs of these medium term interventions would be approximately £32,300 plus uplifts for fees and contingency.

4.4 Other Longer Term Interventions That Could Be Considered

More substantial interventions, which could be delivered over a design and construction period estimated to be 18 months to 2 years, which would go much further to improve the path for all users, including those with reduced mobility. These would include:

- Widen the path at either side of the bridge and manage the shrubs/low overhanging branches throughout
- Raise the level of the path (to widen it) on the western side of the bridge through a no dig construction
- Replace the bridge to ensure a wider deck and lower gradient ramps

Estimated costs of this package of longer term interventions is in the region of £121,000 plus uplifts for fees and contingency.

At his point funding to develop or implement these proposed interventions has not been identified.

4.5 Overview of Ecological Considerations and Consents Required

All interventions are limited in extent and unlikely to have unavoidable negative ecological impacts. The only exception might be if removing the existing chestnut fence would cause a significant increase in disturbance to important ecological features. Specialist advice should be sought to determine if this is the case.

Where possible ecological enhancements should be designed in to interventions, in proportion to their scale. The two options likely to have the greatest need for additional surveys (replacing the bridge and path improvements by the river) are also the two interventions with most opportunity to provide ecological enhancements. These items of work may also require EA approval.

NE consent will be required for any changes in the vegetation management, modification of river banks, infilling ditches, re-routing or re-grading the path, earthworks and the modification of man-made structures e.g. moving/altering fences. In order for consent to be granted it must be demonstrated that the proposed work would not negatively affect the ecological importance of the site.