

Woolwich Common Path Improvements; Woolwich Common

Preliminary Ecological Appraisal

January 2018



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Executive Summary

Sustrans has been commissioned to investigate upgrading two sections of route at Woolwich Common. The northernmost section follows Repository Road and more southerly section crosses Woolwich Common.

This report considers the ecological impacts of the proposed works through Woolwich Common on designated nature conservation sites, notable plant species and notable or protected fauna. This route is approximately 470m in length following existing paths and desire lines across Woolwich Common between Stadium Road (TQ 4262 7754) and the South Circular Road (TQ 4307 7753).

In order to provide an initial assessment of the likely ecological constraints of this proposal, a Preliminary Ecological Appraisal has been conducted. This assesses the possible impacts of the proposed works on designated nature conservation sites, notable habitats and notable and protected species.

As the route is situated within Woolwich Common SINC there will be direct impacts on this designated site, which is of Grade I Borough importance. The proportion of the site that will be affected is very small, but the impacts are dependent on the exact habitats in the works footprint and potential impacts on the species for which it has been designated.

The only anticipated habitat loss will be the loss of a narrow strip of short trampled grassland along the path verge(s). This strip of habitat is significantly different in structure and composition to the surrounding grassland and could support notable plant species. Whilst this habitat is anticipated to occur elsewhere in Woolwich Common, the proportion to be lost may be significant and the loss could reduce the variety of habitats in the SINC. The proportion of the populations of notable species that could be lost is not known. Whilst these species and this site have no statutory protection the Local Authority has a duty to protect biodiversity and impacts on them are a consideration of the proposal. Further consultation is recommended with the Local Planning Authority, possible mitigation measures are proposed and further survey may be necessary.

Path construction in close proximity to trees has potential to damage to their root systems and result in direct damage to trees during construction. The mature trees along Stadium Road are ecologically important and this would be a significant, permanent, negative impact of the proposal. The semi-mature trees elsewhere do not have an equal ecological importance and impacts would be less significant although retaining these trees will potentially provide for future veteran trees. It is anticipated that damage could be avoided and these trees protected in the long-term if an appropriate tree protection plan is implemented.

The minor habitat loss anticipated (of short grassland along the path verge) is not anticipated to significantly reduce or fragment foraging habitat for fauna. Although slow worm have been identified as potentially present in the common, there is considered to be negligible risk to them from the proposed construction work. Features suitable for use by roosting bats are present in the mature trees along Stadium Road. No direct impacts are anticipated on roosts (if present), however, should works result in serious damage to these trees that would result in tree removal and any roosts within them would also be lost.

Ant hills, which could also support other notable invertebrates, and scrub which could provide shelter for fauna including hedgehog are considered unlikely to be directly affected by the proposal but could be at risk from accidental damage during construction. It is anticipated that impacts on these can readily be avoided and measures to protect them have been proposed.

No impacts are anticipated on other designated nature conservation sites or the functionality of the ecological network that they provide. This is due to the distance from the path and the small scale of the proposed works.

1 Background

1.1 Project Introduction

Sustrans has been commissioned to investigate upgrading two sections of route at Woolwich Common. The northernmost section follows Repository Road and a second section crosses Woolwich Common.

This report considers the ecological impacts of the proposed works through Woolwich Common on designated nature conservation sites, notable species and notable or protected fauna. This route is approximately 470m in length following existing paths and desire lines across Woolwich Common between Stadium Road (TQ 4262 7754) and the South Circular Road (TQ 4307 7753). The northern section alongside Repository Road is considered in a separate report.

1.2 Ecological Assessment

In order to provide an initial assessment of the likely ecological constraints of this proposal, a Preliminary Ecological Appraisal has been conducted. This assesses the possible impacts of the proposed works on nature conservation sites, habitats and protected or notable fauna.

1.2.1 Desk Study

A desk study was undertaken to determine the presence of any designated nature conservation sites and protected or notable species recorded near the route. Natural England (*MAGIC* website) and Greenspace Information for Greater London (GiGL) were contacted to obtain data relating to the route. The following information was determined;

- Designated sites of international importance within a 5km radius of the route;
- Other statutory designated sites within a 1km radius of the route;
- Non-statutory designated sites within a 1km radius of the route;
- Records of protected and notable species within 2km of a central point between the two routes in Woolwich Common; and,
- Priority habitats and landscape classifications present at the site and the surrounding environs.

1.2.2 Habitat Survey

A habitat survey of the proposed route was undertaken on 4th November 2016 by Hannah Lewis MCIEEM. A slow walkover survey was conducted and habitats were recorded in and adjacent to the proposed works area using the standard Phase 1 Habitat Survey technique. This is a nationally recognised means for classifying habitats and was undertaken in accordance with the methodology issued by the Joint Nature Conservation Committee (JNCC, 2010). In addition to this basic survey, supplementary information was collected such as the presence of invasive species and descriptions of habitat condition, management and other observations that would affect value of habitats. During the survey the presence of fauna or their field signs were noted and habitats assessed for their potential to support protected or notable species. The extent of habitats has been mapped in Drawing 2.1 with features of interest shown as Target Notes.

1.2.3 Assessment

This report includes an assessment of the potential impacts on ecological features from the proposed works. Where impacts are anticipated, the value of the ecological feature and scale of the

impact have been assessed. This has been undertaken in accordance with CIEEM Guidelines for Ecological Impact Assessment (CIEEM 2016). This is considered in light of current ecological legislation and planning policy and so considers impacts on designated nature conservation sites, protected and notable species and landscape scale impacts such as habitat fragmentation.

This report makes recommendations regarding what implications ecology has on the feasibility of the proposed route creation, what further studies would be required and what measures to avoid, mitigate or compensate for ecological impacts are likely to be necessary.

1.2.4 Constraints

Any single visit to a site will miss a proportion of the species present. The time of year at which this survey was conducted is also suboptimal for botanical surveys. As this report constitutes a preliminary ecological appraisal, the habitats survey is intended to identify broad habitat types only and recommends further botanical surveys where this is deemed necessary. As such the time of year is not considered to be a constraint to this survey.

The cuttings left in situ on the mown grassland surrounding the route also obscured a large proportion of the sward and restricted observation of this habitat. Whilst areas of cuttings were lifted for inspection of this habitat, species more scarce in the sward may have been missed.

2 Baseline Information

2.1 Nature Conservation Sites

No internationally important nature conservation sites with statutory protection were identified within 5km of the route.

Two nature conservation sites with statutory protection were identified within 1km of the route. These were Maryon Wilson Park & Gilberts Pit Local Nature Reserve (LNR) and within the LNR Gilbert's Pit (Charleton) Site of Special Scientific Interest (SSSI). Six Sites of Importance for Nature Conservation (SINC), sites with protection through the planning process were situated within 1km of the site. All these sites are summarised in Table 2.1.

Site Name	Proximity and location	Conservation Importance	Description
Woolwich Common SINC	Route within site TQ 427 772	Borough Grade 1	A large expanse of semi-improved grassland, much of which is acidic. Knotted clover <i>Trifolium striatum</i> , a species scarce in London, is present in one location in the north of the site. More neutral areas support smooth tare <i>Vicia tetrasperma</i> , a species scarce in Greenwich. The grassland supports large populations of butterflies, grasshoppers and other invertebrates. Areas of scrub and woodland are present near the edges of the grassland.
Repository Wood and Charlton Cemetery SINC	150m north TQ 426 781	Borough Grade 2	Repository Wood is mainly secondary woodland with some mature oak <i>Quercus</i> sp. And sweet chestnut <i>Castanea sativa</i> present. Three ponds are present, one of which supports a moderately good flora. Charlton Cemetery, to the south of the wood, contains substantial areas of acid grassland which includes abundant prickly sedge <i>Carex muricata</i> ssp <i>lamprocarpa</i> a species scarce in London.
Academy Place Orchard SINC	550m south TQ 429 768	Local	Recently planted orchard, with a wide variety of fruit trees. The southern boundary is an old hedge and bank, with a sizeable population of bush vetch <i>Vicia sepium</i> , which is very rare in Greenwich
Maryon Wilson Park & Gilberts Pit LNR and SINC	600m north TQ 419 78	Borough Grade 1	A mostly wooded site with acid grassland, gorse and broom scrub, a small stream and wet grassland also present. The grassland supports a good assemblage of burrowing hymenoptera. The wetland areas support bristle club rush <i>Isolepis setacea</i> and bog stichwort <i>Stellaria uliginosa</i> , species rare in London

Table 2.1: Designated nature conservation sites within 1km of the proposed path (continues).

Site Name	Proximity and location	Conservation Importance	Description
Eaglesfield Wood SINC	650m south TQ 433 768	Local	A small broadleaved woodland with a shrub layer which is dense in places. Bluebell <i>Hyacinthoides non-scripta</i> occurs in the ground flora. Several clearings are present with bramble <i>Rubus fruticosus</i> agg., tall herbs and rough grassland. A pond is present and supports breeding frogs <i>Rana temporaria</i> and smooth newts <i>Lissotritus vulgaris</i> .
Shooters Hill Woodlands Oxleas Wood LNR Part outside 1km area also SSSI	900m south TQ 437 761	Metropolitan	Oxleas, Jack and Shepherdleas Woods together form one of London's most extensive areas of ancient woodland. Plants of restricted distribution in London are present including wild service-tree <i>Sorbus torminalis</i> , guelder-rose <i>Viburnum opulus</i> , southern woodrush <i>Luzula forsteri</i> and buckthorn <i>Rhamnus cathartica</i> . The woods also contain a wide variety of fungi, a rich invertebrate fauna with several notable beetles and flies and a ponds that supports palmate newt <i>Lissotriton helvetica</i> , now the rarest native amphibian in London.
Greenwich Cemetery SINC	1000m south TQ 424 762	Borough Grade 1	Diverse neutral grassland that supports pignut <i>Conopodium majus</i> , a species which is scarce in the borough. Several springs create damp areas within this site.

Table 2.1 Continued: Designated nature conservation sites within 1km of the proposed path.

2.2 Plants and Habitats

2.2.1 Surrounding Landscape

The route is situated within the Inner London National Character Area (NCA). This is predominantly urban but does include an extensive network of green infrastructure including reservoirs, wetlands, parks and the Thames.

The path crosses Woolwich Common. Although mostly surrounded by built up habitats it is one of a series of linked greenspaces that are almost continuous out of London into the rural landscape surrounding Orpington in Kent, known as the South East London Green Chain. Barrack Field and Repository Wood are situated to the north and northwest and Eltham Common is located to the southeast.

National habitat inventories indicate that Woolwich Common comprises the priority habitat 'Wood Pasture and Parkland' with a fringe of deciduous woodland. These two habitat types occur elsewhere nearby in the landscape including in Eltham Heath to the southeast and Charleton Park to the west. The only other priority habitats occurring within 1km of the proposed path through Woolwich Common are a 58Ha area good quality semi-improved grassland in Charleton Cemetery (already described in Section 2.1) and a small area of traditional orchard to the southeast of Woolwich Common.

GiGL provided records of thirty plant species of conservation concern recorded within the search area and a further fifty recorded within 10km. These included nationally rare species such as corn cleavers *Galium tricornutum*, nationally scarce species such as clustered clover *Trifolium glomeratum* and yellow vetchling *Lathyrus aphaca*; and species of local conservation concern such as narrow leaved pepperwort *Lepidium ruderale* (located within in or close proximity to Woolwich Common), bird's-foot clover *Trifolium ornithopioides* and meadow cranesbill *Geranium pratense*.

Knotted clover, a species scarce in London; and smooth tare, a species scarce in Greenwich, are both listed in the Woolwich Common SINCC Citation. The knotted clover was recorded in the northern part of Woolwich Common in 2002 (pers. Comm. GiGL) although an exact location has not been provided.

Records of twenty-four non-native invasive plant species have also been provided within the search area. A further eight are situated within a 10km radius of the route (for which no detailed location are provided). These include giant hogweed *Heracleum mantegazzianum*, Himalayan balsam *Impatiens glandulifera* and Japanese knotweed *Fallopia japonica* amongst other introduced trees and shrubs, water plants and herbs.

2.2.2 Phase 1 Habitat Survey

The following habitat types were recorded along the Thames Path.

- Bare ground;
- Hard standing and fences;
- Dense continuous scrub;
- Scattered scrub;
- Scattered trees; and,
- Semi-improved grassland.

These are summarised below and mapped on Drawing 2.1. Target Notes are used on the map and in the text to illustrate features of particular interest or that are too small to map.

Bare Ground

The route follows existing footpaths across the common. The westernmost 150m of path is surfaced but the remaining 320m is unbound. The width of the unbound paths vary. The main path that the route follows varies in width between 1m and 2m with the vegetation either side showing signs of trampling with bare patches present in the sward (Plate 2.1). The easternmost 30m of the route leaves the main path and follows a subsidiary desire line to the South Circular Road. This has a width of bare ground approximately 0.5m wide with adjacent trampling (Plate 2.2).



Plate 2.1: Main path across common

Plate 2.2: Eastern section of path

Hard Standing and Fences

Stadium Road was present at the western end of the proposed route and South Circular Road at the east. Both roads have associated pavements. The proposed route is situated on a 1m wide path with a bound surface (Plate 2.3) for approximately 150m from Stadium Road. This surfaced path then turns south whereas the proposed route then follows an unbound path east.



Plate 2.3: Western section of path

Dense Continuous Scrub

Areas of dense continuous bramble *Rubus fruticosus* agg. scrub were present around the fenceline at the west of the route and on the bank at Target Note 6. The area at Target Note 4 was noted to have mammal paths entering it. The area at Target Note 5 graded into a linear strip of semi-natural broadleaved woodland to the south of the survey area.

Scattered Scrub

Two scattered *Prunus* sp. shrubs were present to the south of the route on the verge of the South Circular Road.

Scattered Trees

Scattered trees are present along Stadium Road, South Circular Road and along the fenceline in the western 150m of the proposed path. Trees along Stadium road are very large mature poplar *Populus* sp. trees. The other trees recorded along the route are semi-mature and in good condition. These included Norway maple *Acer platanoides* and poplar.



Plate 2.4: Trees and scrub alongside the fence

Semi-improved Grassland

Semi-improved grassland was the dominant habitat type recorded along the proposed route. This varied in character with four main communities noted along the route.

The path edges had a very thin sward with bare patches, it appeared to be both more regularly mown and trampled than the adjacent grassland. Grass species recorded here included scattered perennial rye grass *Lolium perenne* and meadow grasses *Poa* sp. The proportion of forb species was high and included four plantain species; ribwort plantain *Plantago lanceolata*, buck's-horn plantain *P. coronopus*, hoary plantain *P. media* and greater plantain *P. major* as well as other species such as cranesbill *Geranium* sp, yarrow *Achillea millefolium* and dandelion *Taraxacum officinale*.

The grassland beyond the mown and trampled path verges had a thicker sward and had recently been mown, with the grass cuttings left in situ. Grass species noted included Timothy *Phleum pratense*, meadow grasses and fine grasses including bent *Agrostis* sp. Forb species noted frequently included yarrow, white clover *Trifolium repens* and dandelion.

Unmown grassland was present on a bank running southeast from the proposed route, part of which was situated in the survey area (Target Note 6). This included tall grasses such as false oat grass *Arrhenaterum elatius* and cock's-foot *Dactylis glomerata* and a high proportion of tall ruderal species such as nettle *Urtica dioica*, creeping thistle *Cirsium arvense* and mugwort *Artemisia vulgaris*.

South of the fence at the west of the route (Target Note 3) the grassland was on a slope and had not been recently cut. It was tussocky with ant hills present. It was not closely inspected but appeared more diverse with species not recorded elsewhere along the route such as knapweed *Centaurea* sp. Ant hills were also present at Target Note 1 immediately north of the fence line and adjacent to this area.



Plate 2.5: Trampled grass alongside the path and wider grassland



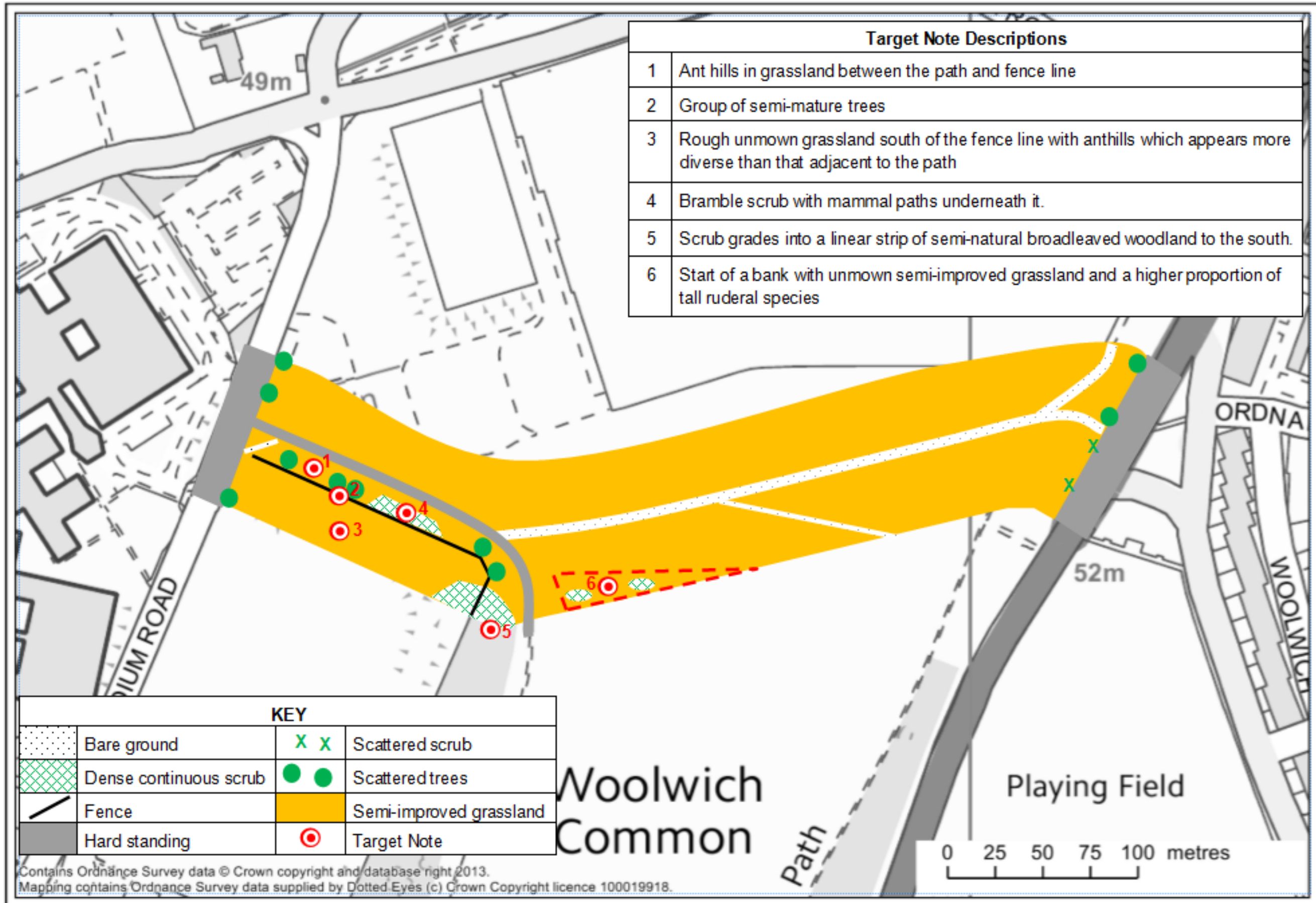
Plate 2.6 The unmanaged bank at Target Note 6

2.2.3 Importance of habitats present

The local ecological importance of the habitat mosaic present in Woolwich Common is reflected in its designation as a SINC. Some habitats recorded, such as the small patches of species-poor scrub and the semi-mature trees are important as part of this mosaic but could be readily recreated and hold low importance if considered individually. The large areas of grassland are a significant constituent part of this mosaic and are noted to be particularly important in the mosaic for the invertebrate populations they support.

The scattered trees along Stadium Road are large and very mature and are ecologically important on a local, and possibly regional level. This is because they are likely to support a large range of species and cannot readily be replaced.

The trampled verge was noted to be significantly different in composition to the surrounding grassland. This habitat type, dominated by perennial rye grass and bare ground, is frequent nationally and locally and can be readily recreated. A small area such as this verge would normally be considered to be of low ecological importance, however, this verge has potential to support notable species. Hoary plantain is more commonly associated with calcareous or heavy clay soils than the local acidic soils and this species may be locally significant although it has also been recorded in trampled habitats in the verges of Repository Road (Sustrans 2016). The path verge could also support knotted clover, a scarce species in London that has been recorded in the northern half of the common. The verge may also be suitable for clustered clover, a nationally scarce species present locally. The presence/absence of these clovers could not be determined during this survey due to the time of year at which it was conducted. As such the importance of these grass verges cannot be determined without further consultation or survey but could be important locally or in London if it supports notable species.



Drawing 2.1: Phase 1 Habitat Map

2.3 Fauna

2.3.1 Invertebrates

GiGL provided records of three notable invertebrate species; stag beetle *Lucanus cervus*, Jersey tiger *Euplagia quadripunctaria* and cinnabar moth *Tyria jacobaeae*. Stag beetle and the cinnabar moth are Species of Principal Concern protected by the NERC Act (2006) and so are protected through the planning process.

The Woolwich Common SINC citation notes that the grassland supports large populations of butterflies, grasshoppers and other invertebrates, but does not list any species of note. Shooters Hill Woodlands Oxleas Wood LNR, located 500m from the route is also noted to support a rich invertebrate fauna with several notable beetles and flies, although species are not listed.

Ant hills were recorded in the grassland around Target Note 3, an area where the grassland was also noted to be more diverse. Ant hills were also present closer to the path at Target Note 1, although were more than 2m from the existing path edge. Ant hills can also be important to support populations of other notable invertebrates. It is anticipated that this area of grassland and the mature trees are likely to be the most important habitats in the survey area for invertebrates, although butterflies and grasshoppers are likely to forage throughout the grassland surrounding the route.

Although bare ground can be an important invertebrate habitat, the heavily trampled and compacted verges are not considered to be important in this location.

2.3.2 Amphibians

GiGL provided records of two amphibian species; common frog and common toad *Bufo bufo* within the search area. Additionally smooth newt was noted as breeding in Eaglesfield Wood SINC and palmate newt, Londons rarest amphibian, in Shooters Hill Woodlands. These sites are situated 650m and 900m from the route at their closest point, although the ponds which support these species may be further away.

The rough grassland around the route is considered to be suitable foraging habitat for amphibian species. Reference to Ordinance Survey Mapping and Satellite imagery indicate that the nearest ponds are situated 550m (in Repository Woods) and are surrounded by extensive and likely high quality habitat for amphibians. It is therefore considered unlikely that newts or frogs would be present in large numbers in the common, although toads are known to range more widely from their breeding ponds.

2.3.3 Birds

The data search provided records of fourteen species protected in the planning process through their inclusion on the list of Species of Principal Importance in the NERC (2006) Act.

Records of twenty-three bird species with additional protection through their inclusion on Schedule 1 of the Wildlife and Countryside Act (1981) were also provided. These were predominantly species associated with wetland habitats, winter migrants or rarities and occasional visitors. Peregrine *Falco peregrinus* and black redstart *Phoenicurus ochruros* are the only Schedule 1 bird species identified by the desk study likely to breed in the surrounding urban environment.

The London Invasive Species Initiative lists ring-necked parakeet *Psittacula krameri*, a non-native invasive species, as being present within the search area. Several common bird species were noted during the survey including ring-necked parakeet.

A large variety of different habitats are present near the route, most of which could be used by foraging, nesting and roosting birds. Habitats of particular note for nesting birds along this route are; scrub, trees and the unmanaged grassland and ruderal vegetation that fringe areas of scrub.

2.3.4 Fish

No records of notable fish species were provided by the data search, but the Thames and tidal tributaries do support important fish populations. No watercourses or waterbodies are present along or in close proximity to the route that could support fish.

2.3.5 Mammals

GiGL provided records of five mammal species within the search area. These were badger *Meles meles* and four bat species; common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P.pygmaeus*, Nathusius pipistrelle *Pipistrellus nathusii* and noctule *Nyctalus noctula*. It should be noted that the most recent noctule record was from 1985 and Nathusius pipistrelle is known from one record only in 2014. Common and soprano pipistrelle have been recorded more frequently and recently.

Habitats were suitable for urban mammals such as hedgehog *Erinaceus europaeus*, fox *Vulpes vulpes*, bats and badger *Meles meles* to forage. Mammal paths were noted entering a patch of bramble scrub at Target Note 4 and a fox scat was noted on a nearby sheet of cardboard. This scrub could provide suitable cover for a fox den and hedgehog nests. No signs of badger activity were noted nearby.

The large mature trees along the Stadium Road Verge had features that could be used by roosting bats such as rot holes and peeling bark. The semi-mature trees elsewhere along the proposed path did not have features suitable for roosting bats.

No aquatic habitats that might support otter *Lutra lutra* or water vole *Arvicola terrestris* were situated along or in close proximity to the route.

2.3.6 Reptiles

GiGL provided records of two reptile species; slow worm *Anguis fragilis* and adder *Vipera berus*. Only a single record of each were provided, from 2011 and 1997 respectively. The location of the adder record is confidential, the slow worm record was situated over 1.5km from the route and it is likely to have been within gardens or small areas of greenspace in a predominantly built up area west of Charlton Church Lane/Hornfair Road although the exact location is not known.

The habitat mosaic in Woolwich Common is suitable for slow worm although it is considered unlikely that other reptile species are present.

3 Likely Impacts and Recommendations

3.1 Proposed Works

The proposal is to widen and resurface the existing path to 3.5m with an all-weather surface such as tarmac. No lighting or other measures are proposed. The alignment follows existing paths but the exact alignment, i.e. which path verges will be lost, is not known. No information has been provided in relation to the need for a site compound or storage of materials.

3.2 Nature Conservation Sites

As the route is situated within Woolwich Common SINC there will be direct impacts on this designated site, which is of Grade I Borough importance. The proposed path will be approximately 470m long and 3.5m wide. This equates to approximately 0.17Ha of a 45Ha site. The proportion of the site that will be affected is therefore very small, but the impacts are dependent on the exact habitats in the works footprint and potential impacts on the species for which it has been designated. Impacts on individual habitats and species of note are discussed in Sections 3.3 and 3.4.

Other designated nature conservation sites identified have been primarily designated for the habitats they support. No impacts are anticipated on these habitats due to the distance from the path and the small scale of the proposed works.

The small size and thin linear nature of the proposal make it unlikely that it would hinder species dispersal through the landscape and so no impacts are anticipated on the functionality of the ecological network that the designated sites provide.

3.3 Plants and Habitats

The only anticipated habitat loss will be the loss of a narrow strip of short trampled grassland along the path verge(s). This strip of habitat is significantly different in structure and composition to the surrounding grassland. Section 2.2.3 of this report described how this habitat supports hoary plantain (a species that could be locally significant), could support knotted clover (a species scarce in London) and has potential to support clustered clover (a nationally scarce species). Whilst these species have no statutory protection the Local Authority has a duty to protect biodiversity and impacts on them are a consideration of the proposal.

Similar habitat was also noted to be present adjacent to other paths and desire lines near the route. The overall extent of this habitat in the common was not surveyed but aerial imagery suggests that this this proposal will involve the upgrade of approximately a third of the well-established desire lines across the northern half of the common. If this habitat is present along all paths but not elsewhere this proposal could be anticipated to result in the loss of potentially a third of this habitat. It should be noted that clustered clover was noted to be present only in one location in the northern half of Woolwich Common SINC in the citation, although the exact location is not known at the time of writing. Whilst the immediate loss of this habitat can be reduced by widening the path in one direction only, the anticipated reduction in trampling due to the improved footpath could lead to the loss of this habitat in the other verge in the long-term.

Whilst this habitat is anticipated to occur elsewhere in Woolwich Common, the proportion to be lost may be significant, the loss could reduce the habitat heterogeneity in the SINC and the proportion of the populations of notable species that could be lost is not known. As it is within a designated site and might involve the loss of notable species, further consultation is recommended with the Local Planning Authority, possible mitigation measures are proposed in Section 4 and further survey may be necessary.

Path construction in close proximity to trees has potential to damage to their root systems and result in direct damage to trees during construction. The mature trees along Stadium Road are

ecologically important and this would be a significant, permanent, negative impact of the proposal. The semi-mature trees elsewhere do not have an equal ecological importance and impacts would be less significant although retaining these trees will potentially provide for future veteran trees. It is anticipated that accidental damage to trees during construction could be readily avoided through adherence to best construction practice. Construction of the shared use path could use sympathetic methods such as 'no dig' and cellular confinement surface that would avoid damage to root systems and reduce the risk of damage to the path from root heave.

It is unlikely that the installation of a path under the trees would necessitate a long-term increase in tree works for safety reasons as the trees are already managed for safety due to the proximity of a road.

No information has been provided in relation to the need for a site compound or storage of materials. These would cause some temporary habitat disturbance. Grassland habitat would be anticipated to readily recover from such disturbance and a recommendation has been made in relation to their location.

3.4 Fauna

The minor habitat loss anticipated (of short grassland along the path verge) is not anticipated to significantly reduce or fragment foraging habitat for fauna. No additional lighting is proposed that might affect wildlife foraging in or moving through the common at night.

The ant hills noted in the wider verge at Target Note 1 were more than 2m from the path edge and it is anticipated that they would not be directly affected by the proposal. There is however a risk that they could be damaged during construction by vehicle movements or storage of materials. Whilst the proportion of ant hills affected would be low, this is an impact that could readily be avoided. Measures to protect these are described in Section 4.2.

Although slow worm have been identified as potentially present in the common, there is considered to be negligible risk to them from the proposed construction work. This is because they are extremely unlikely to be present in the works footprint, which comprises very short grassland and bare trampled earth, during construction.

Features suitable for use by roosting bats are present in the mature trees along Stadium Road. No direct impacts are anticipated on roosts (if present), however, should works result in serious damage to these trees that would result in tree removal, roosts present within them would also be lost.

The area of scrub at Target Note 2 may include a fox den and could support hedgehog nests. Whilst no direct impacts are anticipated on this, there is a risk of accidental impacts during construction from vehicle movements. It is anticipated that this impact can be readily avoided. Measures to protect these are described in Section 4.2.

4 Conclusions and Recommendations

4.1 Conclusions

As the route is situated within Woolwich Common SINC there will be direct impacts on this designated site, which is of Grade I Borough importance. The proportion of the site that will be affected is very small, but the impacts are dependent on the exact habitats in the works footprint and potential impacts on the species for which it has been designated.

The only anticipated habitat loss will be the loss of a narrow strip of short trampled grassland along the path verge(s). This strip of habitat is significantly different in structure and composition to the surrounding grassland. Section 2.2.3 of this report described how notable species could be present within this habitat. Whilst this habitat is anticipated to occur elsewhere in Woolwich Common, the proportion to be lost may be significant, the loss could reduce the habitat heterogeneity in the SINC and the proportion of the populations of notable species that could be lost is not known. Whilst these species and this site have no statutory protection the Local Authority has a duty to protect biodiversity and impacts on them are a consideration of the proposal. Further consultation is recommended with the Local Planning Authority, possible mitigation measures are proposed in Section 4 and further survey may be necessary.

Path construction in close proximity to trees has potential to damage to their root systems and result in direct damage to trees during construction. The mature trees along Stadium Road are ecologically important and this would be a significant, permanent, negative impact of the proposal. The semi-mature trees elsewhere do not have an equal ecological importance and impacts would be less significant although retaining these trees will potentially provide for future veteran trees. It is anticipated that damage could be avoided and these trees protected in the long term if an appropriate tree protection plan is implemented.

The minor habitat loss anticipated (of short grassland along the path verge) is not anticipated to significantly reduce or fragment foraging habitat for fauna. Although slow worm have been identified as potentially present in the common, there is considered to be negligible risk to them from the proposed construction work. Features suitable for use by roosting bats are present in the mature trees along Stadium Road. No direct impacts are anticipated on roosts (if present), however, should works result in serious damage to these trees that would result in tree removal any roosts present within them would also be lost.

Ant hills, which could also support other notable invertebrates (at Target Note 1) and scrub which may include a fox den and could support hedgehog nests (at Target Note 2) are considered unlikely to be directly affected by the proposal. They could however be at risk from accidental damage during construction. It is anticipated that impacts on these can readily be avoided. Measures to protect these are proposed below.

No information has been provided in relation to the need for a site compound or storage of materials. These would cause some temporary habitat disturbance. Grassland habitat would be anticipated to readily recover from such disturbance and a recommendation has been made in relation to their location.

No impacts are anticipated on other designated nature conservation sites or the functionality of the ecological network that they provide. This is due to the distance from the path and the small scale of the proposed works.

4.2 Recommendations

R1 Consultation with the local planning authority is recommended in relation to all work within the SINC but particularly in relation to the impacts on the trampled grassland in the path verge and notable species that could be associated with it. A botanical survey to determine whether notable

species are present may be deemed necessary depending on what mitigation measures can be included in the scheme (see R2 below).

R2 Possible mitigation measures to preserve trampled grassland habitat and notable species that might be present are described below.

- Widening the path to one side only to phase the species loss;
- Consider using grass-reinforcement mesh for the path surface rather than tarmac to allow species tolerant of trampling to continue to grow in less used sections of the path footprint;
- Install benches or other features of interest along the path to encourage trampling of grassland in controlled locations.
- Any areas disturbed by the works should be left to regenerate naturally with local species or seeded from seed collected prior to work or from elsewhere in the common.
- Incorporate measures that mimic or encourage trampling into the long-term habitat management regime at the common.

R3 A tree protection plan should be developed to ensure no damage occurs to the mature trees along Stadium Road. This should also allow for the future growth of semi-mature trees into veteran trees without conflict with the path surface.

R4 The locations of any site compound or other temporary disturbance from construction such as material storage and vehicle parking and turning areas should be situated in areas of species poor grassland to be agreed with the Local Authority. These should not be situated on the locations where ant hills have been recorded.

R5 The ant hills at Target Note 1 and scrub at Target Note 2 should be protected from accidental damage from vehicle movements by temporary fencing to be kept in situ for the duration of works. These must be Heras fencing or similar that is robust but allows the free movement of wildlife underneath.

5 Index and Bibliography

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