Southwark Council

Camberwell Old Cemetery, Southwark: Ecological assessment

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645/01 Camberwell Old Cemetery: Phase one habitat survey

SUMMARY

An ecological assessment was carried out in 2011 at Camberwell Old Cemetery, Southwark, in connections with plans to expand the burial capacity. A phase one habitat survey was undertaken and a general overview of habitats on the whole site is presented, with additional detail regarding Areas J to O, H in the northwest and F/F1 in the south where additional burial capacity is specifically being considered.

The cemetery is a Site of Borough Importance (Grade I) for nature conservation however its importance comes mostly from its location and extent as an area (11.8 ha) of semi natural open space within an otherwise built up residential area. The Cemetery site consisted of common and easily re-creatable habitats such as amenity grassland with areas of semi-improved grassland between graves. The extensive wooded/scrub area in the northern part of the cemetery was likely to support breeding birds and foraging and possibly roosting bats, hedgehog, stag beetle and sheltering amphibians/reptiles. Scattered trees and scrub belts around the site also provided local conservation interest and potential for breeding birds and pipestrelle bats the later recorded within the cemetery.

Potential areas for re use as additional burial are considered, in particular areas F and F1, and recommendations are given to minimise the impacts of expansion on features of nature conservation interest. Opportunities to enhance biodiversity within the Cemetery are also identified including production of a management plan.

1 INTRODUCTION

1.1 Catherine Bickmore Associates were commissioned on 18th July 2011 on behalf of The London Borough of Southwark to undertake a phase one ecological survey of Camberwell Old Cemetery, London, SE23 3RD. The aim of the survey was to determine constraints and opportunities with regards to nature conservation in connection with the development of a strategy to create additional space for burial within the cemetery grounds, and in addition to consider specific proposals for area F and F1.

1.2 The Old Cemetery (c.11.8ha) is located in a residential area in East Dulwich to the south of Peckham Rye Park, and to the west of Camberwell New Cemetery. The main entrance to the Old Cemetery is from Forest Hill Road (centred on grid reference TQ 349 742).

Outline

1.3 Survey methods including desk study data collection and field survey are outlined in Section 2, with desk study findings presented in Section 3, and field survey results described in Section 4 followed by an assessment of nature conservation interest. Constraints and opportunities including recommendations with regards to expanding burial area and improving nature conservation interest of the cemetery are given in Section 5. Appendices include a species list, photographs of the habitats on site, followed by a summary of relevant legislation.

2 SURVEY METHODS

Desk study

2.1 Biological records were obtained from the National Biological Network (NBN, 2011) and from Southwark Council who provided a species list for the cemetery and a description from the 1995 ecological survey of the cemetery as a site of borough importance (grade I). Magic Map and Natural England's Nature on the Map web pages were checked for site designations.

2.2 Further information regarding sites of nature conservation interest was obtained from the London Borough of Southwark Biodiversity Action Plan 2006-2010 and London Borough of Southwark (2011) and Lewisham Council (2011) local plans and proposal maps.

Field survey

2.3 A site visit was undertaken on 7th September 2011, a cloudy, mostly dry day, by a qualified ecologist. The field survey method followed phase one habitat survey procedures in Nature Conservancy Council (1990) and comprised a walk over of the site recording main habitat types and species present using the DAFOR[1] scale (Nature Conservancy Council, 1990).

2.4 Features of note were described and plotted on a plan along with the main habitat types (drwing 645/01). A broad description is given in the text of the habitats across the site, with a more detailed description of Areas J to O and H and F/F1 where cemetery re-use is planned. Common names are used throughout the text with scientific equivalents for flora listed in Appendix II, applying BSBI (2007), or Stace (2010) nomenclature.

2.5 The survey was subject to access and seasonal constraints reflecting the conditions on site at the time of the survey. September is too late to record vernal species however conditions were suitable for the purpose of the survey.

[1] D = dominant; A = abundant; LA = locally abundant; F = frequent; LF = locally frequent; O = occasional; R = rare

3 DESK STUDY FINDINGS

Site context and history

3.1 The Old Camberwell Cemetery covers c.11.8ha and is located c.400m to the west of Camberwell New Cemetery, with the main entrance located to the west of Forest Hill Road (drawing 645/01). The Cemetery is bounded by residential areas on all sides, with Brenchley Gardens SNCI providing a green linkage to the north east to One Tree Hill Site of Nature Conservation Importance (SNCI) and Local Nature Reserve (6.6ha) and Camberwell New Cemetery SNCI. Peckham Rye Park is located approximately 200m to the north of the Old Cemetery.

3.2 The cemetery itself forms part of a Site of Borough Importance and is also a Green Chain Park in the Southwark Core Strategy (Southwark Council, 2011), and is therefore protected as an important open space under Policy 11.

3.3 The majority of the site is relatively level ground that falls gradually from south to north with localised raised areas in the north west and north east.

3.4 Camberwell Old Cemetery was first used for burials in 1856 when it was surrounded by farmland bounded by roads approximately on their present alignment (1839 Tithe map and OS 1874 1st edition map). Since when, the entire cemetery has been intensively used for burials. Now however, the northern part of the cemetery has become wooded over, particularly in the north west, while the southern part is regularly used for burials.

Sites of nature conservation interest

3.5 Sites of Importance for Nature Conservation (SINC) are those sites which contain the best examples of habitats or rare species/assemblages of species or important populations of species or sites which are of particular significance in being in an otherwise heavily built up area. Sites of Metropolitan Importance are significant on a London-wide scale while Sites of Borough Importance are important from a borough perspective. Borough sites are divided into two categories, Grade I and Grade II, according to their quality, however all are important at a borough-wide scale.

3.6 Sites of nature conservation interest are protected under the London Plan (Greater London Authority, 2011) which states that sites should be given a level of protection commensurate with their importance and adverse impacts on the biodiversity interest should be avoided or minimised and mitigated/compensated.

3.7 The Old Cemetery is a Site of Borough Importance (Grade I) named Camberwell Old Cemetery, So.BI 8. The site covers approximately 11.6ha and includes valuable wildlife habitat in the north consisting of tall grassland and woodland (including black poplar trees) with dense undergrowth growing over the gravestones, resulting in a 'wild feel' which is valuable in such a built up area (London Ecology Unit, 1989). It is also designated as Metropolitan Open Land (OS149).

3.8 Within Southwark there are six Sites of Borough Importance within the vicinity of the Old Cemetery:

Brenchley Gardens (2.9ha) is a Grade 2 ecological site including woodland and grassland (Southwark Biodiversity Action Plan) immediately to the east of the Old Cemetery, to the east side of Forest Hill Road. It provides a green link to One Tree Hill and the New Cemetery.

To the east of Brenchley Gardens is Aquarius Golf Course Site of Borough Importance (Grade II) (2.4ha) consisting of neutral grassland over a covered reservoir.

One Tree Hill (6.8ha) which is Grade 1 ecological site and Local Nature Reserve with relict acid grassland and secondary woodland (London Ecology Unit, 1989) which is c. 300m to the north east of the Old Cemetery.

Camberwell New Cemetery, Honour Oak Crematorium and adjacent area (11ha) (So.BII 5) is on the eastern boundary of One Tree Hill. The key habitat/species of this Site of

Borough Importance (Grade II) are listed as secondary woodland, hedges, mature trees and common lizard (associated with the allotments), and the objective for the site is to manage the boundaries for wildlife (London Borough of Southwark, 2006-2010).

Peckham Rye Park and Common (45ha) is a Site of Borough Importance (Grade II) with conservation interest in the remnant of a stream system and bankside vegetation, several ponds and a small area of woodland. It is located c.200m to the north of the Old Cemetery.

Dawson's Hill (2.4ha) is a Site of Borough Importance (Grade II), c.200m to the west of the Old Cemetery, which includes neutral grassland slopes.

3.9 Forest Hill to New Cross Gate Railway Cutting Site of Metropolitan Importance lies approximately 0.8km to the south east of the Old Cemetery, in Lewisham. It is listed as containing 'probably the finest suite of rail side habitats in London', including woodland, scrub, acid and neutral grassland and reed beds (Lewisham Council, 2011).

3.10 Horniman Nature Trail is a Site of Borough Importance in Lewisham, consisting of a disused railway line with woodland, grassland and scrub, run as a nature trail by the Horniman Museum (GLC Ecology Handbook No. 4), c.100m to the south of the Old Cemetery.

3.11 There are no statutory internationally or nationally important sites for nature conservation within 5km of the cemetery.

Protected species

3.12 Records relating to protected species are mostly over 45 years old and may no longer be valid on account of the urban context. A record of common toad is present in the 10km grid square area covering the site, and a 1960 great crested newt record and 1949 record of slow worm was found on NBN (2011) from the grid square c.1km to the east of the cemetery. A 1965 record of hazel dormouse from West Norwood (c.3-5km to south west, exact location unspecified) was also obtained from NBN.

3.13 Bird records included a black redstart record from 2009 in Peckham Rye Park, c.200m to the north of the Old Cemetery, and a number of common garden birds. BAP species: hedgehog have been recorded in Dawson's Hill, c.200m to the west of the Old Cemetery, and stag beetle have been recorded within 1km to the south of the site in 2005.

3.14 A bat survey assessment of trees was carried out in Area E, F and H at Camberwell Old Cemetery in August 2011 (ASW Ecology, 2011). Of some 34 trees surveyed (those subject to works in winter) only 3 had potential for bat roosts, and there were no confirmed bat roosts reported. An emergence survey was carried out of the trees with potential for roosts in Areas F and H in September 2011, and no bat roosts were identified. A number of feeding and commuting common pipistrelle were recorded indicating that the cemetery provides foraging habitat for bats. It was also possible that other trees in the cemetery were used as roosts by bats (ASW Ecology, 2011).

3.15 Southwark Council's 1995 ecology survey of the cemetery noted the presence of an excellent selection of mature trees including several old oak pollards and a black poplar tree, a nationally scarce and declining tree. It described the cemetery as consisting mainly of grassland, scrub, mature trees and vegetated gravestones, including a substantial area of scrub and recently cleared woodland in the north west. It also listed the presence of species of conservation concern such as house sparrow, and the specked wood butterfly which is a flagship species under the local BAP woodland Habitat Action Plan (HAP), and the meadow brown butterfly, a flagship species under the parks and open spaces HAP (London Borough of Southwark, 2006-2010).

3.16 Species present within nature reserves with public access along the Forest Hill to New Cross Gate Railway Cutting Site included slow worm and common lizard, tawny owl, great and lesser spotted woodpecker and sparrow hawk. Common lizard has also been recorded in the allotments to the south of Camberwell New Cemetery (London Borough of Southwark, 2006-2010).

Biodiversity Action Plans

3.17 In 2010 the EU agreed to a vision and 2020 mission for biodiversity including protecting, valuing and restoring ecosystem services and biodiversity by 2050 and halting degradation/loss by 2020 (Defra, 2011). The European Commission (2011) have adopted a new EU biodiversity strategy to help meet this goal.

3.18 The UK Biodiversity Action Plan outlines the UK's strategic approach to biodiversity conservation which is based on the ecosystem approach along with priority species and habitat action plans (UK Biodiversity Partnership, 2007). It includes a number of potentially relevant habitat and species plans including for hedgerows, lowland mixed deciduous woodland and ponds, and species plans for stag beetle, dormouse, noctule and pipistrelle bats, Western European hedgehog and all reptile species, common toad, great crested newt, along with bird species dunnock, song thrush, common cuckoo, common starling, house and tree sparrow and lesser spotted woodpecker.

3.19 Following the overall goals of the EU biodiversity strategy, The England Biodiversity Action Plan sets out the country's overall strategy with regard to biodiversity which is based on an integrated large-scale/landscape approach to conservation with four main outcomes relating to habitats and ecosystem on land and in the sea, species protection and people engagement. The strategy's vision is stated as being:

> "*to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.*" (Defra, 2011).

3.20 The English Biodiversity Action Plan includes a number of priority actions, one of which is to bring a greater proportion of existing woodlands into sustainable management and to increase the area of woodland in England.

3.21 The London Biodiversity Partnership (2011) have developed 11 habitat action plans (HAP) including for woodland, standing water, reed beds, and parks and urban green spaces such as cemeteries, along with a list of other important habitats which have targets but no action plan such as built structures, and open landscapes with old trees. Targets to maintain, enhance and extend the habitats are given in the London Plan (Greater London Authority, 2011). There are species action plans for bats, reptiles, house sparrow and stag beetle; and a list of other important species including black redstart and common dormouse.

3.22 Within the London BAP Parks and Urban Green Spaces HAP is a specific action plan for churchyards and cemeteries. The aims of the action plan are:

> To develop a strategic approach to the protection, management and enhancement of the nature conservation value of cemeteries and churchyards.
>
> To respect the primary purpose of cemeteries and churchyards, which is that of burial and as a space to accommodate grieving visitors.
>
> To secure the involvement of all London's faiths and communities in the conservation of churchyards and cemeteries, by raising awareness.

3.23 Two advice notes regarding wildlife in churchyards and implementation of biodiversity action plans in churchyards and cemeteries is available on the Diocese of London (2011) website. The Diocese of London is also developing a project with the Diocese of Southwark, and they are progressing with fundraising to assess the habitats, fauna and flora in churchyards across the Dioceses of London and Southwark (Diocese of London, 2011).

3.24 The local London Borough of Southwark Biodiversity Action Plan 2006-2010 contains habitat action plans to enhance biodiversity in parks and open spaces (including sports fields but not cemeteries) and woodland (including secondary woodland, scrub with trees and hedgerows), and species action plans for bats and stag beetle.

3.25 Additional flagship species within the woodland habitat action plan included speckled wood butterfly on woodland edges and glades, oak species and associated purple hairstreak butterfly, greater spotted woodpecker and sparrow hawk.

3.26 Additional flagship species within the parks and open spaces habitat action plan included oxeye daisy, rosebay willow herb, buttercups, song thrush, greater spotted woodpecker, holly blue butterfly, meadow brown butterfly and six spot burnet moth.

4 FIELD SURVEY FINDINGS

Overview

4.1 The central part of the cemetery tends to be associated with historic burial areas with the surrounding area in use for 'commoners' with those in the northern part much over grown with trees and shrubs. The north western area has been subject to tipping and also has regenerated into woodland scrub with localised tall ruderal vegetation. Scattered trees amongst a mostly closely maintained grass sward with some open areas without trees was characteristic of the eastern area.

4.2 Roads formed the south eastern (Wood Vale) and western (Underhill Road) boundaries with boundary fences mostly associated with occasional mature trees and a narrow margin of bramble scrub. The majority of the north western and northern eastern boundaries were backed onto by gardens of adjacent residential properties in Ryedale, and Forest Hill Road, with the exception of a short section by main vehicle entrance off Forest Hill Road.

Habitat types

4.3 A number of habitat types can be distinguished within the cemetery (drawing 645/01) with the main habitat types described below:

Amenity grassland with areas of introduced ornamental planting of shrubs and scattered trees

Semi improved species poor grassland mostly with scattered trees

Tall ruderal

Secondary woodland/scrub

Scrub/tree lines

4.4 There was an inevitable gradation between the classifications of amenity, improved and poor semi-improved grassland. The grassland between all the graves appeared fairly regularly cut, however the degree of maintenance appeared to vary between areas resulting in two different grassland classifications: amenity grassland (closely maintained uniform, short grassland with low diversity of grass and few forbs), and poor semi-improved grassland (slightly higher species diversity, rougher grassland, less closely maintained). The semi-improved grassland areas tended to be associated with graveyards of older graves and those with kerb-set memorials which often supported additional species.

Amenity grassland with areas of introduced ornamental planting

4.5 Areas of improved or amenity grassland mainly related to the south eastern, southern, north eastern parts of the cemetery (areas W1-4, T, F, F1, H1, Q1) with a variable number of scattered trees. The grassland presented a mostly low, regularly cut sward in areas with memorial stones and recent burials including recent burial mounds (Photo P1) providing areas with bare cloddy clay.

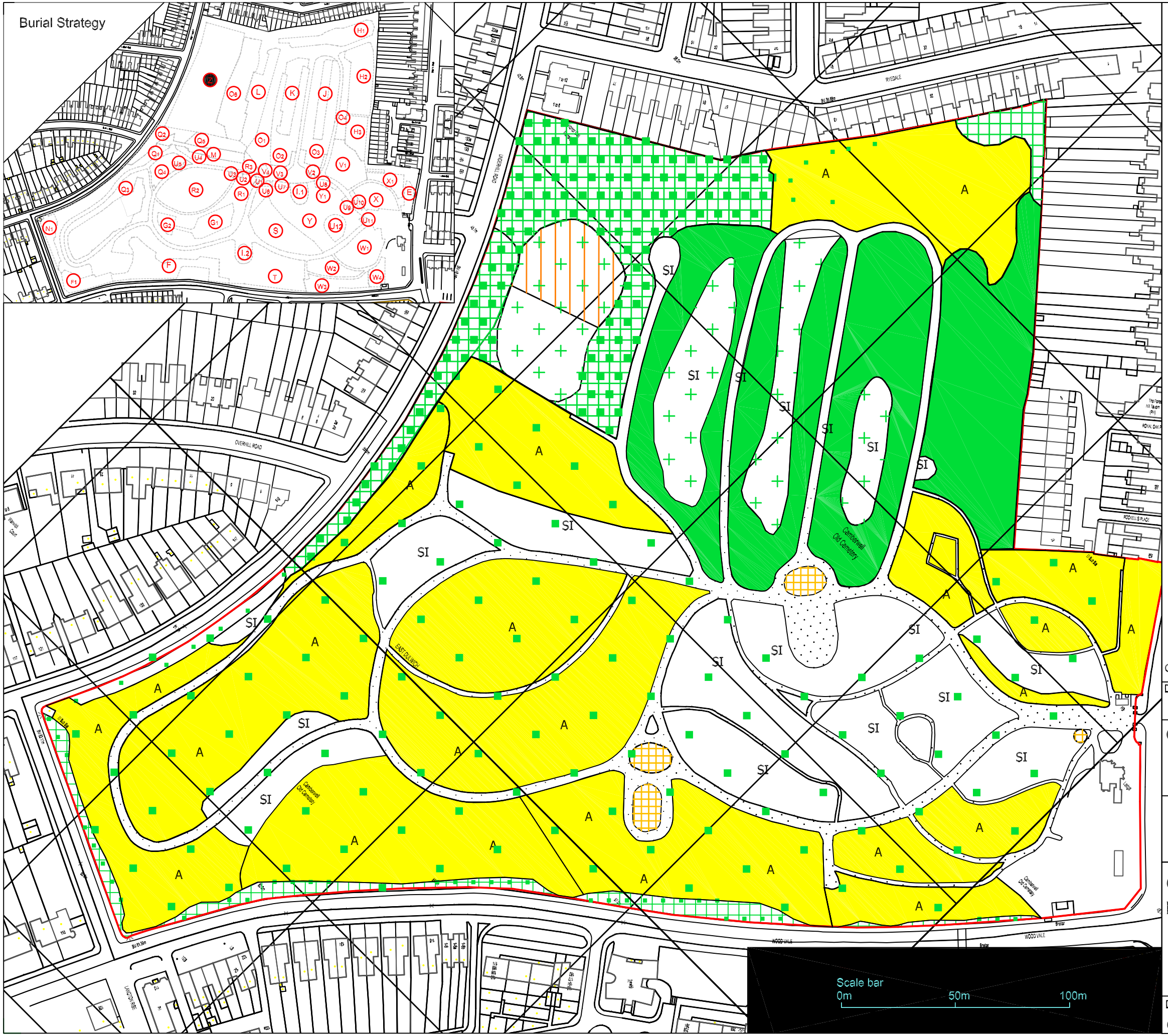
4.6 Area Q1 and parts of area F and F1 provided rough cut grass with some more frequently mown paths and a scatter of mature and recently planted ornamental trees (Photo P2) with a few fallen trees as dead wood in area F (photo P3) (with the arisings being raked off Q1 at the time of the survey).

4.7 Rose beds were present near the entrance together with a section of garden privet and holly hedge, with some other rose beds in the central area. Occasional forbs were present including clover, creeping cinquefoil, daisy, ribwort plantain.

4.8 A small area along the eastern boundary of area E had been cleared leaving a distinctive trunk of a former pollarded plane tree (photo P4) alongside a cypress hedge.

Species poor semi-improved grassland

4.9 Species poor semi improved grassland was concentrated in the central part of the cemetery in association with the historic burials and over areas with uneven ground, partly shaded by scattered mature trees. These included parts with a high density of kerb stone graves (photo



KEY

- Amenity grassland
- SI — Species-poor semi-improved grassland
- Tall ruderal
- Dense scrub
- Scattered scrub
- Introduced shrub
- Broad-leaved semi-mature woodland
- Scattered trees/tree-line
- Species-poor hedge
- Hardstanding
- (S) Burial Strategy areas

Drawn by	Check by	Date	Scale
DL	CB	Oct 2011	See bar

Camberwell Old Cemetery

Phase 1 habitat survey

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Drawing number	Revision
645/01	

P5) with other areas providing open grassland defined by a network of narrow mostly surfaced paths. Smaller areas of semi improved grassland were more extensively maintained as rough grassland. Species poor semi improved grassland also penetrated glades/rides within the wooded area in the northern part.

4.10 Within a mostly low maintained sward the grassland included a variable extent of species such as American willow herb, autumn hawkbit, common birds foot trefoil, common sorrel, black knapweed, creeping buttercup, creeping cinquefoil, creeping Jenny, field bind weed, greater plantain, hedge crainsbill, oxeye daisy, meadow vetchling, meadow buttercup, ragwort, red clover, ribwort plantain, self heal, thyme leaved speedwell, white clover, yarrow. Within the chippings of older kerb stone areas there was a variable cover of stone crops including tasteless, reflexed, and white (photo P6) with some kerb stone enclosures having been colonised by grassland including species such as oxeye daisy (photos P5 & P7). More rarely occurring species included common sedge, pendulous sedge, crow garlic, violet. Small stands of Japanese knotweed were recorded amongst kerb set graves in area X in the east.

4.11 Within the wooded areas (H, J, K, L, O1-3) the species poor semi improved grassland formed a variably narrow strip incorporating kerb set graves either side of the tarmac covered paths and mostly overhung by trees (photo P8 & P9). Some sections of the path had over grown with other areas as exposed tarmac or bare ground. Semi improved grassland was also present as gladed areas within the wooded cover. These areas appeared to be infrequently cut.

4.12 Along and either side of the paths, both within and interspersing kerb stone graves, species within the grassland included: American willow herb O, barren broome O, black medick O, cocksfoot O, common birdsfoot trefoil O, common vetch O, cow parsley O, cleavers O, creeping bent O, crow garlic R, creeping cinquefoil O, creeping Jenny F-LA, false oat grass F, germander speedwell O, Japanese knotweed LF, greater plantain F, hawkweed ox tongue O, hedge bindweed O, herb Robert O, hog weed O, male fern R, nettle O , meadow buttercup O , meadow vetchling O-LF, nipplewort R, ox eye daisy O, ragwort O, red clover O, ribwort plantain O, rye grass O, self heal R , stone crop LF, white clover O, wood dock O , wood avens LF-F., bittersweet O, violet R, Scrub along the interface with the wooded area and overgrowing grave stones mainly included ivy LF, bramble LF and occasional dog rose (photo P10).

4.13 Within the glade areas enclosed by trees (mainly areas L,K, J), the grassland was characteristically more tussocky with fewer forbs than either side of the paths, there were also occasional wood piles and dead wood on the ground with one or two larger trees that had been retained as part of glade clearance works. Species included: barren brome O, cocksfoot F, creeping bent R, creeping Jenny LF, false oat grass O, hedge wound wort R, hogweed O, Japanese knotweed R, meadow buttercup R, Yorkshire fog F, wood avens O-LF, wood dock R.

Tall ruderal

4.14 The central part of area Z was an open area with some rubble patches and a mosaic of patches of tall ruderals and garden escapes including creeping thistle LF, black medick F and occasional common vetch, bristly ox tongue, field bind weed, amongst false oat grass, creeping bent and cocksfoot with rarely occurring broad leaved everlasting sweet pea, buddleia, common knap weed, common reed, common mallow, Michaelmas daisy, mugwort, pampas grass, ribwort plantain, wild teasel. This was enclosed by areas of scrub and confined to the area subject to previous tipping.

Secondary woodland, trees and scrub

4.15 Secondary woodland/scrub related to the northern part of the site including Areas H3, parts of H2, O1-3, L, J, K, Y1. This was dominated by mostly even aged sycamore saplings forming a dense shade within thickets of bramble scrub submerging an uneven ground with gravestones with some stands of ash and Norway maple saplings LF, and cypress, holly, hornbeam, horse chestnut, lime, yew generally rare in occurrence. Mature/semi mature trees were mainly sycamore with some areas of ash including in H2/3, a number of the more mature trees were

ivy covered. H2/3 also included an area with white willow trees. Larger mature oaks were noted at the south eastern end of O1 and O2 amongst relatively dense stands of ash, Norway maple saplings, and sycamore with a further larger oak with dead wood including woodpecker holes and fallen timber towards the north western end of K (photo P11). .

4.16 Some clearance of saplings had been undertaken in parts of Y1/H3 to expose gravestones with larger mature oak and ash trees being retained amongst ivy as ground layer and some areas of open canopy where bramble was dominant. In other cleared areas ash saplings were frequent amongst ivy with occasional bushes of elder, hawthorn, holly, and rare occurrences of garden privet and yew. The south eastern part of Y1 included two larger white willow trees amongst ash saplings and there were some poplar trees towards the eastern side of H1/H3. There were a number of central small cleared areas of tree with grassland forming glades (photo P12).

4.17 Occasional hawthorn bushes were present with other shrubs including some introduced species: aucubia, Dartford cotoneaster, dog rose, elder, evergreen spindle, honeysuckle, garden privet (LF), snowberry, spindle were generally rare in occurrence.

4.18 There were occasional stands of Japanese knotweed throughout the area mainly at the interface of the grassland and wooded areas including at the northern end of areas L, P, the southern end of O2,and in K (photo P13).

4.19 Ivy was frequent to abundant as a ground layer also scrambling over gravestones (photo P14) with occasional to rare occurrence of lords and ladies, male fern, wood avens and hogweed where light permitted.

4.20 A relatively steeply mounded area formed area Z in the north western part of the Cemetery where scrub had mostly established with the exception of a central open area described under tall ruderal. The scrub was dominated by sycamore saplings with ash and sycamore seedlings and much ivy (LA) with a fallen willow tree and patches of bramble and occasional buddleia, evergreen spindle R, firethorn R, hornbeam, holly R, Norway maple R, snowberry R.

4.21 On the south eastern edge of area Z near the base of the mounding and amongst the dense shade of hornbeam and sycamore saplings, and seedlings of ash and sycamore with an ivy ground layer were patches of dead stems of the parasite broomrape (possibly ivy broomrape for which there is a record in the Cemetery) (photo P15) . Patches of bramble scrub were present on the boundary of the area with occasional cow parsley, hog weed and wood avens.

Scrub/tree lines

4.22 Scrub/tree lines related to the south eastern and western boundaries with a further section along backs of gardens along the northern boundary. Alongside the Wood Vale wooden close boarded boundary fence was an intermittent row of mature and semi mature trees and saplings including ash, sycamore and lime trees with groups of outgrown suckering elm, and a rare occurrence of birch, horse chestnut, oak mostly growing amongst a variable width of bramble with areas of ivy, the occasional hawthorn bush, and an associated strip of rough grassland with patches of cow parsley. A similar feature was present along the southern boundary with oak, some ivy covered sycamore, acacia, out grown suckering elm suckers, horse chestnut, lime and poplar with a variable width of bramble and the occasional elder bush. The boundary along Overhill Road included a slight raised bank with a line of trees including acacia, horse chestnut, lime, oak at the southern end with bramble and ivy patches re appearing mid way together with out grown suckering elm, ash O and acacia O. The northern part of this boundary woodland scrub restricted access for the survey. Wood avens was locally frequent under some of the trees with cow parsley O.

4.23 The trees and scrub in the north west (area Z) was dominated by relatively dense, impenetrable stands of sycamore with ash and sycamore seedlings with an ivy understory ground and patches of bramble. Other more rarely occurring trees included hornbeam, Norway maple, with introduced shrubs including buddleia/butterfly bush, evergreen spindle, firethorn, snowberry.

4.24 The northern boundary with backs of residential gardens forming the edge of areas H1 and parts of H2 included some intermittent rows of trees (photo P16) with an area of trees and scrub on a bank to the rear of gardens in Forest Hill Road including ash and Norway maple trees with occasional bramble, dog rose, and plum with mostly ivy as a ground layer. Ivy was present also up certain of the more mature ash trees notably around ash tree number 0666. A semi mature oak and number of ash saplings were present also. There was a crack willow at the interface of the tree/scrub band and the secondary wooded area to the immediate south.

4.25 Other areas of scattered scrub included cleared glade areas forming the central part of L and J discussed separately under the woodland heading above.

Fauna

4.26 ASW Ecology (2011) bat survey assessment of trees in Area F, E and H recorded three trees with medium or high potential for bat roosts (tree no. 616 in Area F, and trees 661, 667 in Area H), No confirmed bat roosts were reported. A subsequent emergence survey of the trees with potential for roosts in Areas F and H recorded a number of feeding and commuting common pipistrelle but no bat roosts.

4.27 The cemetery grounds provide good quality foraging habitat for bats, particularly along the tree and shrub belts along the boundary, and the gladed areas and rides within the woodland area forming the northern part of the site. Some larger trees, especially those with ivy coverings and die back have potential for roosting bat.

4.28 The scrub and trees within the cemetery particularly in the northern area provided potential habitat for a number of more commonly occurring breeding birds which are protected when nesting. Birds recorded by Southwark Council included blackbird, blue tit, bullfinch, crow, goldfinch, great tit, house sparrow, pigeon, robin and winter wren.

4.29 The scrub and wooded areas provided potential suitable habitat for hedgehog. The dead wood provided potential habitat for invertebrates including stag beetle. Stag beetles lay their eggs underground near logs or stumps of dead trees of a wide range of species, especially oak, but also ash, elm, sycamore, lime, hornbeam, apple and cherry (London Wildlife Trust, 2000).

4.30 Some of the rougher areas of grassland with a mosaic of scrub, particularly area Z, had potential for use by reptiles and amphibians such as common lizard and common toad, with piles of dead wood providing potential refugia. However, the only record within the cemetery is for common toad. The lack of any record within the cemetery or adjacent area suggests that reptiles are less likely.

Discussion including Nature conservation interest

4.31 The majority of the site consisted of common and widespread habitats which are easy to re-establish such as amenity and poor semi-improved grassland and secondary woodland of little nature conservation interest per se. The site is of Borough Importance (Grade I) for nature conservation, its importance comes mainly from its relative extent and location in an otherwise built up area/urban context and therefore is important to the local community. It is a Green Chain Park which is an open space forming part of the Green Chain Link, a walk connecting open spaces in Dulwich and Nunhead into the South East London Green Chain. It also has a potential important role as nearby connecting habitat to the adjacent Horniman Nature Trail Site of Borough Importance and Brenchley Gardens Site of Borough Importance.

4.32 The grassland included crow garlic which is apparently relatively uncommon in the Borough and is not listed as occurring in the area on the London Natural History Museum (2011) postcode plants database which sources its data from the Atlas of the British Flora, 3rd edition. Other species although not rare have interest on account of their urban location including the broome rape, and creeping Jenny. Creeping Jenny was relatively extensive component of the semi improved grassland and is a species associated with damp shaded places however it may be a garden escape. Dartford cotoneaster is of local interest as an introduced native.

4.33 The vegetation composition of area Z in the west is typical of abandoned brown field sites with a mix of substrates.

4.34 The secondary woodland with bramble and ivy understorey and dead wood in the north of the Cemetery is likely to support breeding birds and possibly roosting and foraging pipistrelle bat, hedgehog, stag beetle and sheltering amphibians/reptiles. Bullfinch has been recorded in the cemetery and is a UKBAP species which nests in thick scrub. This area therefore provided local nature conservation interest to the site. It is also listed as supporting speckled wood butterfly and meadow brown butterfly which are flagship species under the local woodland and open spaces habitat action plans.

4.35 The scattered mature trees, and scrub belts with extant dead wood around the cemetery in association with areas of rough maintained grassland also provide some local nature conservation interest and have potential as hedgehog, stag beetle, nesting bird and foraging/possible roosting bat habitat. Birds are protected during nesting and all bat species are European protected species (Appendix III).

4.36 The species-poor semi-improved and rougher grassland in Areas M, S, Q4, W1, W4, Y, Y1, Z, X and the woodland glades/rides provide some slightly more diverse grassland with potential for invertebrates and foraging and sheltering amphibians and reptiles. If present, common toad may use peripheral longer grass and scrub around the site. If present, common lizard is more likely to use the north western parts of the cemetery. All reptiles are protected from killing/injuring under the Wildlife and Countryside Act (Appendix III).

4.37 A more extensive type of management appears to being adopted along the boundaries and in grassland areas also of benefit to invertebrates however much of the grassland where this is being undertaken has a low species diversity.

4.38 Patches of Japanese knotweed were recorded in a number of locations mostly in the northern parts of the Cemetery. This is classed as a notifiable weed under the Wildlife and Countryside Act 1981 and it is an offence to “plant or otherwise cause to grow in the wild”. Vegetative material and contaminated soil is classed as ‘controlled waste’ under the section 43 of Environmental Protection Act, 1990 (Appendix III).

4.39 Overall, the Cemetery provides a part wooded area with a semi natural appearance and a network of paths of value in an urban context, in particular on account of the woodland character.

5 RECOMMENDATIONS: CONSTRAINTS AND OPPORTUNITIES

Introduction

5.1 Routine excavations for burials are small-scale but can be frequent and cumulative. Depending on the extent and location, the impact on nature conservation interest will vary. The impact is likely to be minimal if restricted to smaller areas of regularly maintained amenity or semi-improved grassland. The time frame for reburials relates to around 75 years allowing time for a rotation of planned natural regeneration. Opportunities to integrate nature conservation with routine burial are given below.

5.2 In extending the burial capacity of the cemetery, some more major earthworks and habitat/land use changes may be required, and in this case further surveys and mitigation procedures are recommended where necessary.

5.3 The potential areas of constraints and opportunities for re-use of burial areas are discussed below.

Opportunities to integrate burial and nature conservation

5.4 The different types of burial procedures have varying impacts on the surrounding habitats. Scattering/burial of ashes with a plaque is an option with low impact, depending on long-term maintenance of the area, although it may result in nutrient enrichment of the surrounding soil. Arguably, in the case of Camberwell Old Cemetery the extensive cover of ivy and brambles in wooded areas suggest that the soils are already likely to be enriched and therefore this is unlikely to be an issue. This option of scattering/burial of ashes is recommended in the northern wooded areas with mature oaks including those with die back where deep burial would affect tree roots.

5.5 Natural burial (burial of the body without a headstone) requires deep excavation however the surface vegetation can be restored and then managed as habitat for wildlife without the need for grave maintenance. Therefore this option also has a relatively low impact in the long term and would be appropriate in areas of semi improved grassland.

5.6 Use of headstones only, rather than a full kerb-set memorial, would potentially provide more opportunities for nature conservation as it leaves a larger area of grassland which can be managed with wildlife in mind, although in the short to medium term visitors to the grave may want to maintain the immediate area as they chose.

5.7 Inverting turf and leaving graves to re-colonise naturally or seeding with a wildflower mix following burial provides a method to increase diversity of plants and thereby invertebrates in the cemetery. This would also encourage growth of colourful ephemeral species such as autumn hawkbit and bird's-foot trefoil on which the larvae of six-spot burnet moths feed (a flagship species in the parks and open spaces local habitat action plan). Alternatively strips of wildflowers including legumes (such as bird's-foot trefoil, meadow vetchling and clover) and species such as ox eye daisy and creeping Jenny could be seeded or transplanted as inoculants from areas semi improved grassland elsewhere.

5.8 Erection of full kerb-set memorials restricts the areas of grassland/wildflowers that can be maintained between graves and can result in greater loss of habitat if filled with gravel/other hard surfaces, although over time these may colonise naturally.

5.9 Areas of semi improved grassland were mainly associated with the historic monument area in the central areas (X, W1, Y, Y1, S, U) with it being possible to integrate restoration with the maintenance of the more diverse areas of the grassland sward both around and within kerbstone areas through a process of the identification of indicator species. More extensive management of the grassland allowing the flowering of the forbs would be beneficial in these areas.

5.10 The wooded northern area formed an essential part of the character of the cemetery. However, the present woodland is mostly of relatively recent origin with dense saplings. The grasslands areas either side of the paths provide an interface with the wooded edge and should be maintained as such with the occasional cutting back of encroaching scrub from the wooded

area so as to maintain areas of dappled shade to benefit species such as the speckled wood butterfly. However, there is further scope to remove internal areas of sapling growth whilst maintaining the structure of mature trees, in particular locally occurring native species ash, hornbeam, oak, willow, and yew.

5.11 To maintain the general woodland cover within the cemetery an overall strategy is required such that there is a rotation of cleared areas of woodland, and abandonment and regeneration of woodland else where within an overall framework of retaining mature trees. New trees could be planted around the woodland edge and boundary areas, and dedicated/sponsored for revenue. Bird nesting boxes could also be installed on larger retained trees and buildings, and if lack of space limits new tree planting, these bird boxes could be sponsored.

5.12 Production of a cemetery conservation management plan, also recommended by English Heritage (2007), would aid effective integration of management/maintenance of the historic and functional aspects of the cemetery with nature/wildlife conservation. Use of interpretative signs around the cemetery in areas to be managed for wildlife would also aid public understanding and support of management regime changes.

Opportunities to extend burial capacity

5.13 Areas of improved grassland in the southern, south western, south eastern and north western parts of the Cemetery area provide few constraints for re-use of burial areas except for a number of mature trees with burials needing to avoid excavation of the roots in particular of native species and fine arboricultural specimens of introduced species. However to provide effective open areas for burial some consolidation of trees may be required with a specialist survey to assist with their identification. A survey of bat potential should be undertaken of those trees identified for removal.

5.14 In the longer term, a programme of relaxed management could be undertaken to the amenity grassland to allow establishment of scrub woodland through natural regeneration and as part of a wider strategy to compensate for areas of woodland removed in the northern area as part of the long rotational management. This emphasises the need to plant native locally occurring species of trees. The current management practice of leaving fallen trunks of trees on the ground should be continued.

5.15 Area Z in the north west included much immature tree growth, with the exception of the boundary areas. Although the more open ruderal area in the centre was reasonably diverse it is likely develop as a more uniform habitat on account of being colonised by sycamore scrub. This provides a potential area for early clearance and burial.

Constraints to further burial

5.16 The lines of scrub and trees with an associated rough grassland margin surrounding the peripheries of the site should be retained as far as possible to maintain habitat connectivity around the edge of the cemetery and to provide enclosure from adjacent roads. Occasional selective thinning of trees to favour native species will be necessary to enable the development of mature specimens.

Japanese knotweed

5.17 Japanese knotweed is an invasive alien weed Small fragments of stems and roots are highly regenerative and will readily grow into new plants, therefore it can easily be spread following excavation or cutting, for example in boot cleats or tyre treads. Roots can extend up to 7m from the aerial parts of plant therefore following a more detailed survey in the summer period a 7m zone around the all patches in the northern area and elsewhere should be fenced off and labelled to ensure no works are carried out in the fenced off area to reduce the risk of spreading it further with treatment undertaken. A Japanese knotweed management plan should be drawn up by a specialist in order to prevent its spread and ultimately eradicate the plant.

5.18 Japanese knotweed vegetative material and contaminated soil is classed as ‘controlled waste’ under the section 43 of Environmental Protection Act, 1990, and therefore any arisings not

retained on site must be destroyed on site or disposed of at a licensed landfill site in accordance with the Environmental Protection (Duty of Care) Regulations, 1991 (as amended 2003).

General mitigation procedures

5.19 General mitigation measures have been listed below and would apply to Areas F, F1 and H1 which have been identified for re- use of burial within the short term.

5.20 Trees and scrub should be removed outside the breeding bird season or following a check for nesting birds. If nesting activity is recorded the habitat should be left in tact until the young have fledged. Semi-mature or mature trees should also be checked for bat potential prior to removal (see Further Surveys).

5.21 Depending on the results of the reptile survey in Area Z (see Further Surveys), a mitigation plan may need to be drawn up to avoid killing or injuring reptiles in these areas if any extensive excavations are planned. Mitigation may include measures such hand searches and habitat manipulation (cutting vegetation short prior to excavation) outside of the winter hibernation period.

5.22 Dead wood including stumps should be retained in-situ where possible or moved to the edge of the woodland/scrub patches and stacked in partially buried piles to provide habitat for invertebrates, reptiles and amphibians. Where it is necessary to remove larger more mature trees consideration should be given to ring barking to create 'natural' standing timber in areas where health and safety permits. Removal of under storey vegetation should be undertaken carefully to avoid killing hedgehogs if present, and leaf litter should be retained where possible.

5.23 Mature oak trees should be retained where possible as flagship species with high biodiversity value.

Recommendations for mitigation within areas F/F1 and H1 in relation to proposals

5.24 Proposals for re use of areas F and F1 include raising levels and consequential removal of areas of trees and shrubs including along the boundary. Replacement tree and shrub planting and the re establishment of wildflower grassland is proposed as part of the landscape proposals. Along the boundary tree and shrub planting should include ash, field maple, holly, oak, hornbeam and yew as trees with shrub species including elder, field maple, hawthorn, holly, privet, sallow, spindle with creepers including along the fence dog rose, honeysuckle, ivy.

5.25 A bank is proposed along the outer edge of the re used area. To provide localised variations the grading of the bank should include localised variation to the profile to incorporate small hollows which may become water logged, and where there is a sunny aspect small vertical banks to benefit soil boring invertebrate. Wildflower grassland would be established over sub soil with a mix of areas seeded and supplemented by planting wildflower plugs. Certain patches should be left bare for natural colonization and these could incorporate placed trunks of felled trees.

5.26 The report relating to the bat survey (AWS Ecology, 2011) provides recommendations with respect to tree works and these should be followed.

5.27 On account of the loss of some mature trees, the addition of bird and bat boxes should be made on those mature trees remaining.

5.28 Many of the recommended mitigation measures for example plug and tree planting could be undertaken as part of a community project involving the local community including youth groups. Tree and bird boxes could form sponsored memorials.

5.29 Limited interpretation signage is recommended to incorporate nature conservation and historic interests of the Cemetery.

Further surveys

5.30 A reptile survey is recommended if any major works (including for example extensive topsoil removal/excavation/ground works) are planned in the western area of the cemetery, including in areas Z. Results of the survey would be used to indicate likely impact of the proposed works on any reptiles present, and inform development of a mitigation strategy.

5.31 The survey for bat should be updated in respect of trees removed in areas F, F1 and H after 2012.

5.32 Elsewhere, if any additional large semi-mature to mature trees with potential for bat are to be removed, a daytime inspection by a licensed bat worker should first be required to look for signs of bat and determine how favourable the structures were for use as a bat roost. Follow up night-time (dusk and dawn) emergence surveys may also be required in the summer period to confirm presence or likely absence. If a bat roost is to be affected, a licence would be required from Natural England.

REFERENCES

ASW Ecology (2011a) A bat assessment of selected trees at Camberwell Old Cemetery and Camberwell New Cemetery

ASW Ecology (2011b) A bat emergence survey of selected trees in areas F and H in Camberwell Old Cemetery

BSBI (2007) BSBI List of British & Irish Vascular Plants and Stoneworts

Defra (2011) *Biodiversity 2020: A strategy for England's wildlife and ecosystem services.* DEFRA

Diocese of London (2011) *In depth advice by topic: Biodiversity action plans/ Churchyards and wildlife/ Trees in churchyards* (http://www.london.anglican.org/DACInDepthAdvice; accessed 2nd November 2011).

EC (2011) *Our life insurance, our natural capital: An EU biodiversity strategy to 2020*

English Heritage (2007) *Paradise preserved: an introduction to the assessment, evaluation, conservation and management of historic cemeteries*

GLC (date unknown) *Ecology handbook No. 4: A nature conservation strategy for London – woodland, wasteland, the tidal Thames and two London boroughs*

Lewisham Council (2011) *Unitary development plan* (http://www2.lewisham.gov.uk/lbl/planning/udp/schedule2.html; accessed 26th October 2011)

London Biodiversity Partnership (2011) *London's Biodiversity Action Plans* (http://www.lbp.org.uk/londonhabspp.html; accessed 18th October 2011)

London Borough of Southwark (2006-2010) *Biodiversity Action Plan: work for wildlife*

London Borough of Southwark (2011) *Proposals map* (http://maps.southwark.gov.uk/connect/southwark.jsp?info=Core_Strategy&mapcfg=CoreStrategy; accessed 26th October 2011)

London Ecology Unit (1989) *Nature conservation in Southwark: Ecology handbook 12*

London Natural History Museum (2011) *Postcode plants database* (http://www.nhm.ac.uk/fff/; accessed 7th December 2011)

London Wildlife Trust (2000) *Stag beetle: an advice note for its conservation in London*

National Biodiversity Network Gateway (2011) (http://data.nbn.org.uk; accessed 21st October 2011)

Nature Conservancy Council (1990) *Handbook for Phase 1 habitat survey: a technique for environmental audit.*

Southwark Council (2011) *Core Strategy*

Stace C. (2010) *New flora of the British Isles, 3rd ed.* Cambridge University Press, Cambridge

Greater London Authority (2011) *The London Plan: Spatial development strategy for Greater London*

UK Biodiversity Partnership (2007) *Conserving biodiversity – the UK approach.* DEFRA

APPENDIX I: PHOTOSHEET – OLD CEMETERY

P1: Recent burials

P2: Area Q1 with rough grass and some more frequently mown paths, including mature and recently planted ornamental trees

P3: Fallen tree retained in grassland in area F

P4: Cleared area along eastern boundary of area E showing former pollarded plane tree

P5: High density of kerb stone graves amongst semi-improved grassland in central part of the Cemetery area Y1

P6: Cover of stonecrops within chippings of kerb stone

P7: Kerbstone grave colonised by grassland

P8: Semi-improved grassland path within wooded area K/J

P9: Semi-improved grassland covering tarmac path in wooded area K/J

P10: Scrub along the interface with the wooded area and overgrowing grave stones

P11: Larger oak towards north western end of Area K with dead wood including woodpecker holes and fallen timber

P12: Area Y1, showing one of several small glades formed by clearing of trees

P13: Stand of Japanese knotweed area K

P14: Ivy scrambling over gravestones typical of areas J/K

P15: Patch of dead stems of parasite broomrape (possibly ivy broomrape)area O1

P16: Intermittent row of trees along northern boundary of H1

APPENDIX II: SPECIES LIST

Common name	Scientific name
Acacia	*Acacia sp.*
American willowherb	*Epilobium ciliatum*
Apple	*Malus spp*
Ash	*Fraxinus excelsior*
Aucuba	*Aucuba japonica &spp*
Autumn hawkbit	*Leontodon autumnalis*
Barren brome	*Anisantha sterilis*
Birch	*Betula sp.*
Bittersweet	*Solanum eleagnifolium*
Black medick	*Medicago lupulina*
Black poplar	*Populus nigra*
Bramble	*Rubus fruticosus agg.*
Bristly ox-tongue	*Picris echioides*
Broad leaved everlasting sweet pea	*Lathyrus latifolius*
Broomrape	*Orobanche minor*
Buddleia	*Buddleja davidii*
Buttercup	*Ranunculus acris*
Cherry	*Prunus sp.*
Cleavers	*Galium aparine*
Cock's-foot	*Dactylis glomerata*
Common bird's-foot trefoil	*Lotus corniculatus*
Common dog violet	*Viola riviniana*
Common knapweed	*Centaurea nigra*
Common mallow	*Malva sylvestris*
Common reed	*Phragmites australis*
Common sedge	*Carex nigra*
Common sorrel	*Rumex acetosa*
Common vetch	*Vicia sativa*
Cow parsley	*Anthriscus sylvestris*
Crack willow	*Salix fragilis*
Creeping bent	*Agrostis stolonifera*
Creeping buttercup	*Ranunculus repens*
Creeping cinquefoil	*Potentilla reptans*
Creeping Jenny	*Lysimachia nummularia*
Creeping thistle	*Cirsium arvense*
Crow garlic	*Allium vineale*

Cypress	*Cupressus/Chamaecyparis sp.*
Daisy	*Bellis perennis*
Dartford cotoneaster	*Cotoneaster obtusus*
Dog rose	*Rosa canina*
Elder	*Sambucus nigra*
Elm	*Ulmus sp.*
Evergreen spindle	*Euonymus japonicus*
False oat-grass	*Arrhenatherum elatius*
Field bindweed	*Convovulvus arvensis*
Firethorn	*Pyracantha sp.*
Garden privet	*Ligustrum ovalifolium*
Germander speedwell	*Veronica chamaedrys*
Greater plantain	*Plantago major*
Hawkweed oxtongue	*Picris hieracioides*
Hawthorn	*Crataegus monogyna (agg)*
Hazel	*Corylus avellana*
Hedge bindweed	*Calystegia sepium*
Hedge woundwort	*Stachys sylvatica*
Hedgerow crane's-bill	*Geranium pyrenaicum*
Herb Robert	*Geranium robertianum*
Hogweed	*Heracleum sphondylium*
Holly	*Ilex aquifolium*
Honeysuckle	*Lonicera periclymenum*
Hornbeam	*Carpinus betulus*
Horse chestnut	*Acer pseudoplatanus*
Ivy	*Hedera helix*
Ivy broomrape	*Orobanche sp (possibly hederae)*
Japanese knotweed	*Fallopia japonica*
Lime	*Tilia sp.*
Lords and ladies	*Arum maculatum*
Male fern	*Dryopteris filix-mas*
Meadow buttercup	*Ranunculus acris*
Meadow vetchling	*Lathyrus pratensis*
Michaelmas daisy	*Aster novi-belgii*
Mugwort	*Artemisia vulgaris*
Nettle	*Urtica dioica*
Nipplewort	*Lapsana communis*

Norway maple	*Acer platanoides*
Oak	*Quercus robur*
Oxeye daisy	*Leucanthemum vulgare*
Pampas grass	*Cortaderia selloana*
Pendulous sedge	*Carex pendula*
Plane	*Platanus sp.*
Plum	*Prunus spp*
Poplar	*Populus sp.*
Ragwort	*Senecio jacobaea*
Red clover	*Trifolium pratense*
Reflexed stonecrop	*Sedum rupestre*
Ribwort plantain	*Plantago lanceolata*
Rose (ornamental)	*Rosa sp.*
Rosebay willowherb	*Chamerion angustifolium*
Rye grass	*Lolium sp.*
Selfheal	*Prunella vulgaris*
Snowberry	*Symphoricarpos albus*
Spindle (introduced)	*Euonymous sp.*
Stonecrop	*Sedum sp.*
Sycamore	*Acer pseudoplatanus*
Tasteless stonecrop	*Sedum sexangulare*
Teasel wild	*Dipsacus fullonum*
Thyme leaved speedwell	*Veronica serpyllifolia*
Violet	*Viola sp.*
White clover	*Trifolium repens*
White stonecrop	*Sedum album*
White willow	*Salix alba*
Whitebeam	*Sorbus sp.*
Wood avens	*Geum urbanum*
Wood dock	*Rumex sanguineus*
Yarrow	*Achillea millefolium*
Yew	*Taxus baccata*
Yorkshire fog	*Holcus lanatus*

APPENDIX III: SUMMARY OF LEGISLATION

Note: this summary does not represent a legal opinion

Great crested newt and bat

Great crested newts and all bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by The Conservation of Habitats and Species Regulations 2010. These make it an offence to:

- Deliberately or intentionally kill, injure or take an animal of the species or its eggs;
- possess or control any live or dead specimen or anything derived from a great crested newt or bat;
- damage or destroy or intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a great crested newt/bat;
- deliberately, intentionally or recklessly disturb a great crested/bat newt while it is occupying a structure or place which it uses for that purpose.

Works that would result in any of the activities listed above including for example destruction of habitat may be undertaken subject to the granting of a European Protected Species (EPS) licence under Regulation 53 of the Habitats Regulations, and issued by Natural England. The licence must be accompanied by a method statement, and a reasoned statement of application showing how the proposals meet the three tests. The method statement should address how an equivalent population of great crested newt/bat will be maintained as a result of the activities.

Reptile

All reptiles are protected under the wildlife legislation in the Wildlife and Countryside Act 1981 (as amended) protects these species against intentional killing and injuring (under part of Section 9(1) and Section 9(5)).

Breeding bird

Subject to the provisions of part 1 of the Wildlife and Countryside Act 1981 (as amended) it is an offence to intentionally:

a) kill, injure or take any wild bird
b) take damage or destroy the nest of any wild bird
c) take or destroy an egg of any wild bird

Japanese knotweed

Japanese knotweed is classed as a modifiable weed under the Wildlife and Countryside Act 1981. It is an offence to “plant or otherwise cause to grow in the wild” which has implications for control methods e.g. flailing can cause further spread and disposal.

Vegetative material and contaminated soil is classed as ‘controlled waste’ under the section 43 of Environmental Protection Act, 1990, and therefore must be disposed of at a licensed landfill site in accordance with the Environmental Protection (Duty of Care) Regulations, 1991 (as amended 2003).