



Re-survey of Sites of Importance for Nature Conservation (SINCs) in Lewisham

Habitat Surveys January 2015 – May 2016
 Report for Lewisham Planning Service

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Executive Summary

The Ecology Consultancy was commissioned in January 2015 to survey Sites of Importance for Nature Conservation (SINCs) in Lewisham. The survey was required to inform the preparation of a new integrated Local Plan to replace the Lewisham Core Strategy, Development Management Local Plan and other London Borough of Lewisham Development Plan Documents. The aims of the project were:

- to survey 63 existing SINCs compliant with the Mayor of London's methodology¹, providing information on habitats, plant species and wildlife;
- assess the extent and condition of wildlife habitats in Lewisham and report changes in the amount or quality of these in comparison to a similar survey carried out in 2005/6;
- recommend changes to those already designated, to upgrade or down-grade and identify boundary changes; and
- assess proposed sites (11 candidate sites) worthy of SINC site designation and determine if they meet the London SINC criteria² in the context of Lewisham;

The main findings of the survey relating to the status of Lewisham's SINCs, the extent and quality of habitat, associated species and issues of management and maintenance were, as follows:

- Ladywell Fields, Creekside Education Centre, and River Quaggy and Manor Park were assessed as exceeding their current level as Sites of Local Importance and were recommended to be upgraded to Sites of Borough Importance;
- Bridgehouse Meadows³ a Site of Local Importance (never adopted due to the construction of the east London Line) has been proposed as a Site of Borough Importance, which reflects the importance of this site as part of a rail-side habitat corridor and supporting one of the few reptile populations in this part of Lewisham;
- Remaining SINCs have retained the ecological interest for which they were designated in 2005 and are to remain at their current level of designation. In line with GLA guidance,

¹ Open space and habitat survey for Greater London methodology (2004), Greater London Authority

² Advice Note: Process for selecting and confirming Sites of Importance for Nature Conservation (SINCs) in Greater London (2013), London Wildlife Sites Board

³ Not formerly adopted in 2005, due to the east London line being constructed and the uncertainty of the habitat value post construction.

Sites of Borough Grade I and II Importance have been combined to form a single designation of Borough Importance;

- Southend Park, Cornmill Gardens, Northbrook Park, Blythe Hill Fields and Sedgemoor School Boundaries have been proposed as a Site of Local Importance. This reflects the presence of habitat of value to wildlife, habitat enhancements and favourable management over the last 10 years;
- 28 SINC's have proposed new additions totalling 12.8ha. Most notable additions have been recommended at Pool River Linear Park (1.72ha), Spring Brook at Downham Playing Fields (0.80ha), Bridgehouse Meadows (1.6ha) and Beckenham Place Park (2.44ha).
- Following the review there has been an increase in area from 595ha to 614ha as a result of new additions to existing SINC's and six new proposed SINC's totalling 19.7ha. This is a 3% increase in 10 years.
- As a result of this review, the Areas of Deficiency (AoD) in nature have been reduced from 520ha to 337.4ha, a reduction of 182.6ha or 35%. This is the result of improvements at Bridgehouse Meadows and Ladywell Fields, creating wildlife rich habitats valued at the borough level. Improved access into the River Quaggy and Manor Park Site of Borough Importance has also helped to reduce the AoD.
- A proposed boundary extension to Beckenham Place Park has alleviated the AoD by 28.5ha in the London Borough of Bromley to the south. A further 45.5ha of AoD is also alleviated in Southwark as a result of Bridgehouse Meadows recommendations.
- There were no losses to the SINC series. However, small areas of hardstanding, amenity grassland and garden land have been recommended to be excluded from five existing SINC's totalling an area of 1.14ha. This comprises Pool River Linear Park (0.15ha), Iona Close Orchard (0.03ha), Durham Hill (0.34ha) and River Quaggy and Manor Park (0.03ha). The greatest loss was at Rainsborough Avenue Embankment where half of the site (0.58ha) had been cleared. The new landscaping created as part of the adjacent housing development does not meet the SINC criteria;
- Deptford Park, Deptford Railway Meadow, Friendly Gardens, Luxmore Gardens and Longford Nursery Allotments have not been proposed for any SINC designation, as they were assessed as unlikely to meet the SINC criteria. This was primarily due to a dominance of amenity grassland and limited size respectively;
- Lewisham SINC's contain six Statutory Nature Conservation Sites, namely Downham Woodland Walk Local Nature Reserve (LNR), Beckenham Place Park (LNR), Burnt Ash

Pond (LNR), Dacres Wood Nature Reserve (LNR), and Sue Godfrey Nature Park (LNR) and Brookmill Nature Reserve (LNR). The first two sites also support remnant ancient woodland, along with Forster Memorial Park, and Hillcrest Estate Woodlands Sites of Borough Importance;

- Lewisham SINC's contain Habitats of Principal Importance as defined in Section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006, namely acid grassland, lowland mixed-deciduous woodland, traditional orchard, standing open water, and hedgerows. The SINC's containing the most important areas for these habitats were Blackheath and Greenwich Park (hereafter referred to as Blackheath to reflect the area surveyed as part of SINC Review), Beckenham Place Park, Chinbrook Allotment and Community Orchard, Dacres Wood Nature Reserve and Sydenham Park Railway Cutting (hereafter referred to as Dacres Wood and adjacent railway habitat) and Sedgehill Allotments;
- Those London Biodiversity Action Plan Priority Habitats recorded in approximate order of abundance comprised parks and urban greenspaces woodland, meadows and pastures, tidal Thames, acid grassland, standing water, rivers and streams, fen, marsh and swamp, wasteland, built structures, chalk (basic) grassland and reedbed;
- Of strategic ecological importance to Lewisham are the railway line sides and naturalised stretches of the River Ravensbourne, River Pool and River Quaggy. These form habitat corridors and are contiguous with a large number of other SINC's of borough importance. The size, maturity and variety of habitats are integral to the sustainability of populations of bats, birds and invertebrates. Ground-dwelling species, including hedgehogs and common reptile species, depend on habitat corridors for foraging and dispersal and occur chiefly in large or well-connected sites such as the Site of Metropolitan Importance (SMI) Forest Hill to New Cross Gate Railway Cutting, Beckenham Place Park and the Site of Borough Importance Grove Park Nature Reserve;
- Eight SINC's contain wildlife-rich lakes/ponds of value to amphibians, foraging bats and *Odonata* species (dragonflies). These are Devonshire Road Nature Reserve that lies within Forest Hill and New Cross Gate Railway Cutting, Burnt Ash Pond (LNR), Dacres Wood and adjacent railway habitat, Telegraph Hill, Sydenham Wells Park, Beckenham Place Park, the Hare and Billet Pond (on Blackheath) and Bell Green Pond and Vineries nature reserves that are part of the Pool River Linear Park;
- Ten SINC's contain restored sections of rivers and/or streams (from the Ravensbourne, Quaggy, Pool and Spring Brook), enabling natural hydrological processes including meandering and periodic flooding. They also sustain uncommon wetland habitats of

swamp, species rich fen and wet marginal vegetation. These provide valuable habitat to a wide range of birds including the borough's flagship species, kingfisher;

- SINC's that contain herb-rich ruderal and ephemeral species are likely to be important areas for invertebrates that rely on a nectar and pollen resource. Sue Godfrey Nature Reserve, Creekside Education Centre and Pepys Park Nature Area are particularly valuable for this habitat as they are the result of self-seeded wasteland. Railside land also offers value to this invertebrate group. Smaller areas of herb-rich "wasteland" have also been deliberately created in corners of SINC's (such as at Mountisfield Park). These areas are likely to provide refuge for common but declining invertebrate species as well as other wildlife;
- The most important SINC's for invertebrates that rely on deadwood, including the Lewisham flagship species stag beetle, are those sites that contain ancient woodland and mature trees. Many of Lewisham's parks contain a good number of mature trees. Mature native oak trees, in particular, may support isolated or declining populations of less common species. Beetle strips (linking trees along former field boundaries) have been recommended at Ladywell Fields, Beckenham Place Park and Mayow Park for this reason;
- A decline in acid grassland had occurred at five SINC's, having been previously recorded at Beckenham Place Park, Bromley Hill Cemetery, Honor Oak Covered Reservoir and Blackheath. This has been attributed to differences in habitat classification (between different surveyors) and methods of recording;
- A number of SINC's contained small areas of dry grassland (i.e. grassland that was dominated by herbs and/or red fescue and common/creeping bents but did not contain species required to meet the GLA criteria for acid grassland);
- Dry grassland provides local habitat variations within often large areas of improved grassland creating opportunities for annuals to establish, or providing open ground for solitary bees/wasps to make nests. For these reasons, recommendations have been provided in paragraphs 3.14, 3.15, 3.51 and Table 7 provide specific references to Bromley Hill Cemetery and Sydenham Wells Park;
- Small areas of herb-rich neutral grassland recorded in 2005 at Beckenham Place Park, Ladywell Fields and Grove Park Cemetery, were not present in 2015. A new habitat type under the "other" category named "*herb-rich neutral grassland*" was created to record areas that contained species of less restrictive distribution, but which are still of nature conservation value. Species included agrimony, wild carrot, field scabious, black

knapweed, ladies' bedstraw and field woodrush. This new category should help inform grassland management for wildlife.

- Regeneration in Lewisham town centre is de-canalising parts of the River Ravensbourne and Quaggy, creating improved wildlife habitats.
- Current management practices are reducing the conservation value of five borough designated SINCs. These comprised: Grove Park Cemetery; Hither Green Cemetery Lewisham Crematorium and Reigate Road Open Space; Mayow Park; St Paul's Churchyard and Crossfield Street Open Space; and Hillcrest Estate Woodland. Management advice has been provided for each site;
- Site-specific habitat enhancements have been identified where possible. Of particular value are the enhancements associated with the rivers, including potential de-culverting and re-profiling the river banks at Sydenham Cottages Nature Reserve (River Quaggy), Southend Pond (River Ravensbourne), Southend Park (River Pool);
- Biodiverse green roofs were recorded on a number of buildings within or adjacent to SINCs, providing species-rich, undisturbed grassland. Four were surveyed in detail located at Horniman Gardens, Horniman Railway Trail and Horniman Triangle, Queenswood Nature Reserve; at the Steven Lawrence Centre adjacent to River Ravensbourne and Brookmill Park and at Creekside Education Centre. Green roofs located along the river corridors are likely to provide foraging habitat for the borough's flagship species, black redstart;
- 176 green roofs were recorded by the Green Infrastructure Consultancy, totalling 4.8ha across the borough in 2015 (excluding those in SINCs). Of particular note were green roofs located in proximity to SINCs Cornmill Gardens (six records), Lewisham Railway Triangles (four records), Downham Woodland Walk (12 records) and the River Ravensbourne and Brookmill Park (eight records);
- Re-naming Cornmill Gardens, Manor House Gardens, Southend Pond and Ladywell Fields has been proposed in order to make reference to the river habitat which makes these sites important ecologically. Re-naming Lower Sydenham Station Allotments and Bridgehouse Meadows has been proposed in order to make reference to the rail habitat corridor for a similar reason. All sites that contain a statutory Local Nature Reserve will include (LNR) within their site names to recognise the additional value of these sites;

- Trackside botanical surveys have been recommended at Forest Hill to New Cross Gate Railway Cutting to provide fuller information on species present. This was difficult to ascertain from bridges and adjacent boundaries. More detailed information would help understand the importance of this site in supporting rare and notable plant species;
- A habitat survey is recommended of the Thameslink rail improvements centred around Somerfields Street in Surrey Quays, where new ponds and grassland has being created;
- We would encourage Lewisham to make the sharing of ecological data an obligation as part of future planning applications, thereby ensuring wildlife records, habitats and proposed mitigation (e.g. green roofs) are made available to the borough, Greenspace Information for Greater London (GIGL) and third party use. Example wording has been provided in section 4.18 at the end of the report;
- Table 1 below lists all sites surveyed along with proposed recommendations. Appendix 1 (at the end of this report) contains a copy of GLA methodology, figure 4 strategy map, and figure 5 SINC recommendations and revised AoD map. Appendix 2-6 are in separate documents.

Table 1: The table lists existing SINC Information comprising code and name, followed by the habitat map number (Appendix 2). Large SINC's have been split over multiple maps. The second half of the table lists proposed recommendations, in relation to SINC's with proposed boundary changes, associated map number (Appendix 3), and where relevant recommended designation⁴, code and name. The final column provides details on the updates to site citation.

Existing SINC information			Recommendations to SINC's				
Code	Name	Habitat Map No	Boundary Changes (BC)	BC Map No	Designation	Code/ Name	Citation
Sites of Metropolitan Importance							
M031	River Thames and tidal tributaries	-	-	-	-	-	Un-changed
M069	Blackheath and Greenwich Park	4, 5	-	-	-	-	Part updated
M122	Forest Hill to New Cross Gate Railway Cutting	25, 26, 27, 28	-	-	-	-	Updated
M135	Beckenham Place Park	2	Boundary extended in south west corner. Likely to be in similar ownership.	1	-	Beckenham Place Park (LNR)	Updated
Sites of Borough Importance: Grade I							
LeBI01	Brockley and Ladywell Cemeteries	8	-	-	-	Le B 01	Updated
LeBI02	Hither Green Cemetery, Lewisham Crematorium and Reigate Road Open Space	35	Boundary extended along south east corner. Likely to be in private ownership.	11	-	Le B 02	Updated

⁴ This excludes the recommendation given by GLA to combine all borough Grade II and Grade I into one category of borough importance.

Existing SINC information			Recommendations to SINC				
Code	Name	Habitat Map No	Boundary Changes (BC)	BC Map No	Designation	Code/ Name	Citation
LeBI03	Downham Woodland Walk	20, 21	Boundary extended in southern corner. Likely to be in private ownership.	4	-	LeB03 Downham Woodland Walk (LNR)	Updated
LeBI04	Pool River Linear Park	57, 58, 59	Boundary extended in two areas along western boundary and two small areas excluded along Fordmill road. All likely to be in private ownership.	21,22,23	-	LeB04	Updated
LeBI05	Hillcrest Estate Woodland	33	-	-	-	LeB05	Updated
LeBI06	Grove Park Nature Reserve	32	-	-	-	LeB06	Updated
LeBI07	Forster Memorial Park	29	Boundary extended to include a small area along the southwest and southeast corner. All likely to be in borough ownership.	8,9	-	LeB07	Updated
Sites of Borough Importance: Grade II							
LeBII01	Burnt Ash Pond Nature Reserve	13	-	-	-	LeB08 Burnt Ash Pond Nature Reserve (LNR)	Updated
LeBII02	Horniman Gardens, Horniman Railway Trail and Horniman Triangle	40	Boundary extended along southwest corner. Likely to be in similar ownership.	12	-	LeB09	Updated

Existing SINC information			Recommendations to SINCs				
Code	Name	Habitat Map No	Boundary Changes (BC)	BC Map No	Designation	Code/ Name	Citation
LeBII04	Durham Hill	22	Boundaries changed along northern boundary. Likely to be in similar ownership.	5,6	-	-	Updated
LeBII05	Dacres Wood Nature Reserve and adjacent railway habitat	18	-	-	-	LeB11 Dacres Wood Nature Reserve and adjacent railway habitat (LNR)	Updated
LeBII06	Loat's Pit	47	-	-	-	-	Updated
LeBII07	Grove Park Cemetery	31	-	-	-	-	Updated
LeBII08	Sue Godfrey Nature Park	76	-	-	-	LeB14 Sue Godfrey Nature Park (LNR)	Updated
LeBII09	Honor Oak Road Covered Reservoir	39	-	-	-	LeB15	Updated
LeBII10	St Mary's Churchyard, Lewisham	74	-	-	-	LeB16	Updated
LeBII11	Manor House Gardens	49	-	-	-	LeB17 The River Quaggy at Manor House Gardens	Updated
LeBII12	Mayow Park	50	Boundary extended along the southwest corner. Likely to be in similar ownership.	17	-	LeB18	Updated

Existing SINC information			Recommendations to SINCs				
Code	Name	Habitat Map No	Boundary Changes (BC)	BC Map No	Designation	Code/ Name	Citation
LeBII13	Spring Brook at Downham Playing Fields	71, 72	Boundary extended to along all boundaries. Likely to be similar ownership.	31,32	-	LeB19	Updated
LeBII14	River Ravensbourne and Brookmill Park	64, 65	-	-	-	LeB20	Updated
LeBII15A	Senegal Railway Banks	68	-	-	-	LeB21	Updated
LeBII15B	Railside Land: New Cross to St Johns Railsides	53	-	-	-	LeB22	Updated
LeBII15C	Nunhead Cutting	55	-	19	-	LeB23	Updated
LeBII15D	Brockley to St John's Railsides	10	-	-	-	LeB24	Updated
LeBII15E	St Johns to Lewisham Railsides (St Johns Station)	73	Boundary extended to around station. Likely to be in similar ownership.	33	-	LeB25	Updated
LeBII15F	Lewisham Railway Triangles	45	-	-	-	LeB26	Updated
LeBII15G	Lewisham to Blackheath Railsides	46	Boundary extended along north and southern boundary. Likely to be partly owned by Network Rail and the borough.	15	-	LeB27	Updated
LeBII15H	Hither Green Railsides (Hither Green Station)	37, 38	-	-	-	LeB28	Updated

Existing SINC information			Recommendations to SINC				
Code	Name	Habitat Map No	Boundary Changes (BC)	BC Map No	Designation	Code/ Name	Citation
LeBII15I	Hither Green Sidings	36	-	-	-	LeB29	Updated
LeBII15M	Railsides South of Sydenham	61	-	-	-	LeB30	Updated
LeBII15N	Lower Sydenham Station Allotments	48	Boundary extended at northern end. Likely to be in similar ownership.	16	-	LeB31 Lower Sydenham Station Meadow	Updated
LeBII15O	New Cross and New Cross Gate railsides	52	Boundary extended to include railway sidings. Likely to be in similar ownership	18	-	LeB32	Updated
LeBII18	Mountsfield Park	51	-	-	-	LeB33	Updated
LeBII19	Chinbrook Community Orchard and Allotments	14	-	-	-	LeB34	Updated
LeBII20	Chinbrook Meadows	15	-	-	-	LeB35 River Quaggy at Chinbrook Meadows	Updated
Site of Local Importance							
LeL01	Brookmill Nature Reserve	12	-	-	-	Brookmill Nature Reserve (LNR)	Updated
LeL02	Besson Street Community Garden	3	-	-	-	-	Updated

Existing SINC information			Recommendations to SINCs				
Code	Name	Habitat Map No	Boundary Changes (BC)	BC Map No	Designation	Code/ Name	Citation
LeL03	Ladywell Fields	42, 43	-	-	Upgraded to Borough	LeB36 River Ravensbourne at Ladywell Fields	Updated
LeL04	Sydenham Cottages Nature Reserve	77	Boundary extended along northern and south west corner. Likely to be in private ownership.	35	-	-	Updated
LeL05	Folkestone Gardens	24	No change	-	-	-	Updated
LeL06	Whitefoot Recreation Ground	80	No change	-	-	-	Updated
LeL07	Queenswood Nature Reserve	60	Boundary extended along northern boundary. Likely to be in similar ownership.	24	-	-	Updated
LeL08	Rainsborough Avenue Embankments	62	Area reduced by half. In private ownership.	25	-	-	Updated
LeL09	Sayes Court Park	66	No change	-	-	-	Updated
LeL10	Iona Close Orchard	41	Boundary to exclude an area along the western boundary. In private ownership.	10	-	-	Updated
LeL11	Sedgehill Allotments	67	No change	-	-	-	Updated
LeL12	Brockley Hill Park	9	No change	-	-	-	Updated
LeL14	Sydenham Wells Park	78	No change	-	-	-	Updated
LeL15	Hilly Fields	34	No change	-	-	-	Updated

Existing SINC information			Recommendations to SINC				
Code	Name	Habitat Map No	Boundary Changes (BC)	BC Map No	Designation	Code/ Name	Citation
LeL16	Eliot Bank Hedge and Tarleton Gardens	23	Boundary extended along most boundaries. Likely to be in similar ownership.	7	-	-	Updated
LeL17	Southend Pond	70	Boundary extended along northern boundary. Likely to be in similar ownership.	30	-	LeL17 River Ravensbourne at Peter Pan's Garden & Southend Pond	Updated
LeL18	River Quaggy and Manor Park	63	Boundaries extended along northern boundary and reduced along southern boundary. Likely to be similar and private ownership respectively.	26, 27, 28	Upgraded to Borough	LeB37	Updated
LeL19	Albion Millennium Green	1	-	-	-	-	Updated
LeL20	Creekside Education Centre	17	-	-	Upgraded to Borough	LeB38 River Thames Tidal Creek at Creekside Education Centre	Updated
LeL21	Pepys Park Nature Area	56	Boundary extended in north-east corner.	20	-	-	Updated
LeL22	St Paul's Churchyard and Crossfield Street Open Space	75	Boundary extended along northern boundary. Likely to be in borough ownership.	-	-	-	Updated
LeL23	Telegraph Hill Park	79	-	-	-	-	Updated
LeL24	Bromley Hill Cemetery	11	Boundary extended in the northern corner. Likely to be in private ownership.	-	-	-	Updated
LeL25	Bridgehouse Meadows	7	Boundary extended in the southwest corner and eastern boundaries	2	Upgraded to Borough	LeB39 Bridgehouse Meadows Railsides	Updated

Existing SINC information			Recommendations to SINC				
Code	Name	Habitat Map No	Boundary Changes (BC)	BC Map No	Designation	Code/ Name	Citation
LeL26	Gilmore Road Triangle	30	Boundary extended to the north	10	-	-	Updated
Proposed Sites							
N/A1	Blythe Hill Fields	6	Upgraded to local		New	LeL32 Blythe Hill Fields	New
N/A2	Cornmill Gardens	16	Boundary extended along the north, south and eastern boundaries.	36	New	LeL27 River Ravensbourne at Cornmill Gardens	New
N/A3	Deptford Park	19	No change	-	Not proposed	-	N/a
N/A4	Lewisham Park	44	Boundary reduction along western boundary. Likely in similar ownership.		New	LeL28 Lewisham Park	New
N/A5	Northbrook Park	54	-	-	New	LeL29 Northbrook Park	New
N/A6	Southend Park	69	-	-	New	LeL30 Southend Park	New
N/A7	Luxmore Gardens	81	-	-	Not proposed	-	n/a
N/A8	Friendly Gardens and Deptford Railway Meadow	82	-	-	Not proposed	-	n/a
N/A9	Longfield Nursery Allotments	83	-	-	Not proposed	-	n/a
N/A10	Sedgehill School	84	To include school northern and eastern boundaries. Likely to be in borough ownership.	37	Upgraded to Local	LeL31 Sedgehill School Boundaries	New

1 Introduction

- 1.1 The Ecology Consultancy was commissioned by Lewisham Planning Services to re-survey Sites of Importance for Nature Conservation (SINCs) in 2015. The purpose of the survey was to inform the preparation of a new integrated Local Plan to replace the Lewisham Core Strategy, Development Management Local Plan and other Lewisham Development Plan Documents. Lewisham's current habitat records are from 2005 and are out of date.
- 1.2 This assessment and report provides information on the status and condition of the 63 existing SINCs and 10 proposed SINCs. The survey, assessment and reporting uses the framework established by the London Wildlife Sites Board (LWSB) to ensure the SINC review and selection are consistent across London and with national, regional and local policy documents and current legislation.

LEGISLATION

- 1.3 Important habitats and species are protected in the UK by legislation and the planning framework at both national and local levels. This section highlights legislation and policies that are relevant to the review of SINCs in Lewisham.
- 1.4 The Wildlife and Countryside Act 1981 (as amended) (WCA), The Conservation of Habitats and Species Regulations 2010 (as amended), the Countryside and Rights of Way Act 2000 (CRoW Act) and the Natural Environment and Rural Communities Act 2006 (NERC Act) are the major pieces of legislation protecting wildlife species and habitats in England.

The Wildlife and Countryside Act, 1981 (as amended)

- 1.5 The Wildlife and Countryside Act 1981 (as amended) (WCA) provides for, inter alia, the protection of certain species of flora and fauna. All bats, reptiles and nesting bird species receive protection under the WCA, although the level of protection varies from species to species.
- 1.6 Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by Natural England as statutory Sites of Special Scientific Interest (SSSIs) under the National Parks and Access to the Countryside Act 1949 and latterly the Wildlife and Countryside Act 1981 (as amended).

The Conservation of Habitats and Species Regulations 2010 (as amended)

- 1.7 The Conservation of Habitats and Species Regulations 2010 (as amended) implement the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive) in England and Wales. Amongst other things the Regulations give protection to certain species of flora and fauna including bats and great crested newts. The Regulations also provide for the designation and protection of 'European sites', and the adaptation of planning and other controls for the protection of European Sites.

The Countryside and Rights of Way Act, 2000

- 1.8 Part III of the CRoW Act deals specifically with wildlife protection and nature conservation. It makes it an offence to "...recklessly disturb..." the sheltering places of wild animals listed on Schedule 5 of the WCA. Section 74 of the CRoW Act places a duty on all Government departments to have regard for the conservation of priority species and habitats listed in the UK Biodiversity Action Plan (UKBAP) and on the Secretary of State to further, or promote others to further, the conservation of these Species and Habitats of Principal Importance for Biodiversity, as they are now known. However, this has now been largely superseded by Section 41 of the NERC Act 2006 as explained below.

Natural Environment and Rural Communities (NERC) Act 2006 and the Biodiversity Duty

- 1.9 Section 40 of the NERC Act 2006 states that 'every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity', otherwise known as the Biodiversity Duty. Guidance produced by Defra/Natural England makes it clear that biodiversity, as covered by the Section 40 duty, includes all biodiversity and not just the Habitats and Species of Principal Importance.
- 1.10 Under Section 41 of the Act, the Secretary of State must publish a list of Species and Habitats of Principal Importance for Biodiversity. There is an expectation that public bodies would refer to the S41 list when complying with the Section 40 duty.

PLANNING POLICY

1.11 The principal planning guidance at the national level is the National Planning Policy Framework. This is referenced to inform planning policies that are included in regional and local plans.

National Planning Policy Framework

1.12 The National Planning Policy Framework (NPPF) published in March 2012 emphasises the need for sustainable development. In regard to biodiversity the Framework specifies the need for protection of designated sites, and priority habitats and priority species. In determining planning applications, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

1.13 At the national scale, the Natural Environment is one of 13 Core Planning Principles outlined in the NPPF. Of particular relevance are paragraphs 114 and 117. Paragraph 114 states that LPAs should set out a strategic approach in their Local Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure. Paragraph 117 states the duties of the LPA are to plan for biodiversity at a landscape scale. This includes:

- *Identifying and mapping components of the local ecological networks, including the hierarchy of designated sites, wildlife corridors and stepping stones that connect them to other local initiatives to enhance biodiversity; and*
- *Promoting the preservation, restoration and re-creation of priority habitats; ecological networks and the protection and recovery of priority species populations, linked to national and local targets and identified in suitable indicators for monitoring biodiversity in the Local Plan.*

1.14 The priority habitats and species mentioned above refer to those which have been identified as being the most threatened and requiring conservation under the UK Biodiversity Action Plan (BAP) (JNCC, 2015)., Two publications: Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011) and the UK Post 2010 Biodiversity Framework (2012) which replaced the England Biodiversity Strategy and the UK BAP have resulted in changes to the terminology. At the national level priority

habitats and species are now referred to as Habitats and Species of Principal Importance for the Conservation of Biodiversity in England under the NERC Act 2006⁵ (hereafter referred to as ‘Species of Principal Importance’ and ‘Habitats of Principal Importance’). At regional and local levels the term ‘priority habitats or species’ is still in use.

- 1.15 In addition, the Natural Environment and Rural Communities Act (2006) places a general duty on all LPAs to have due regard to the purpose of conserving biodiversity.

The London Plan: The Mayor’s Spatial Strategy for Greater London

- 1.16 The London Plan: The Mayor’s Spatial Strategy for Greater London (GLA, 2011) including published Revised Early Minor Alterations to the London Plan (REMA) (GLA, 2013) and Further Alterations to the London Plan (FALP) (GLA, 2015) deal with matters of strategic importance for spatial development in London. Chapter 2 London’s Places and Chapter 7 London’s Living Places and Spaces sets out the policies that impact amongst other factors the quality and function of green infrastructure and biodiversity in London. In particular, Policy 2.18 - Green Infrastructure: the multifunctional network of green and open spaces and Policy 7.19 Biodiversity and Access to Nature. The relevant information is summarised here:

Policy 2.18 (Green Infrastructure) of the London Plan

- 1.17 Policy 2.18 commits the Mayor to develop a multifunctional network of green infrastructure that secures benefits to biodiversity and commits the Council to making planning decisions that ensure development incorporates green infrastructure links.
- 1.18 Paragraph “D” mentions SINCs in relation to development proposals stating that the appropriate protection should be provided to sites in relation to their importance and including metropolitan, borough and local sites. Paragraph “F” requires LPAs to consider four aspects to the biodiversity resource in relation preparing Local Development Frameworks. These are replicated in full below:
- *identify and secure the appropriate management of sites of borough and local importance for nature conservation in consultant with the London Wildlife Sites Boards (LWSB);*
 - *identify areas deficient in accessible wildlife sites and seek opportunities to address them;*

⁵ 56 Habitats of Principal Importance for Biodiversity and 943 Species of Principal Importance for Biodiversity have been identified as a result of the NERC Act. These are primarily all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework.

- *include policies and proposals for the protection of protected⁶/ Habitats and Species of Principal Importance⁷ and the enhancement of their populations and their extent via appropriate regional and local BAP targets; and*
- *identify and protect and enhance corridors of movement, such as green corridors, that are of strategic importance in enabling species to colonise, re-colonise and move between sites.*

Policy 7.19 (Biodiversity and Access to Nature) of the London Plan

1.19 This policy commits the Mayor to support The Mayor’s Biodiversity Strategy and commits the Council to making planning decisions to ensure development makes a positive contribution to biodiversity through achieving BAP targets and having due regard to European or nationally designated sites and protected species. This policy also commits the Council to making planning decisions to ensure ‘strong protection’ to SMIs, with due regard to the mitigation hierarchy.

1.20 The Mayor and London Biodiversity Partnership have identified targets for the re-creation and restoration of priority habitats as recommended in the NPPF. Habitat opportunity maps created by Greenspace Information for Greater London (GIGL) indicate the most appropriate areas where these habitats may be created. The following habitats have been identified in certain areas in Lewisham:

- **Woodland** – widespread potential across the whole borough;
- **Acid grassland** – localised in the north east and south west;
- **Coastal and floodplain grazing marsh** – localised down the central spine and north east of the borough;
- **Rivers and streams** – localised down the centre and north east of the borough;
- **Reed bed** – localised potential in the centre, north and southern parts of the borough;
- **Heathland** – localised in the north east;
- **Lowland meadow** – localised potential in the central and southern part;
- **Standing open water** – potential in the south and northeast;

⁶Legally protected species include those listed in Schedules 1, 5 or 8 of the Wildlife and Countryside Act, 1981; Schedule 2 of the Conservation of Habitats and Species Regulations 2010; or in the Protection of Badgers Act, 1992.

⁷Species of Principal Importance are those defined by Section 41 of the Natural Environment and Rural Communities Act, 2006.

1.21 Access to nature is increasingly seen as a key component of living in an urban environment. The London Plan policies 7.18 and 7.19 are the drivers for addressing access to nature. Lewisham has good access to green spaces; however, in some parts of the borough people do not enjoy easy access to green spaces with wildlife value. Localities where people are further than 1km walking distance from a publicly accessible site of Metropolitan or Borough level significance for nature conservation are defined by the GLA as 'Areas of Deficiency' (AoD). Lewisham has five Areas of Deficiency covering 14% of the Borough. The largest of these is located in the north-west, spreading from the River Thames in the north to Brockley in the south and the boundary with Southwark in the east. The other four are smaller and discrete. Their broad location and extent are listed below:

- A large area in the north-west around Deptford – 319ha.
- Central, around Lewisham town centre – 55ha.
- East, around Lee – 48ha.
- South west Forest Hill – 77ha.

REVIEW OF EXISTING AND PROPOSED SINCS

1.22 In accordance with GLA guidance, there are four grades of SINC in London; Sites of Metropolitan Importance, Sites of Borough Importance Grade I and Grade II and Sites of Local Importance for Nature Conservation. Brief descriptions of these are given below.

- **Sites of Metropolitan Importance (SMI)** are those sites that contain the best examples of London's habitats and species and contain important habitat or species assemblages or important populations of species. Should one of these sites be lost or damaged, something would be lost which exists in a very few other places in London.
- **Sites of Borough Importance Grade I and II** are those sites that are important on a borough perspective in the same way as the metropolitan sites are important to the whole of London. Although sites of similar quality may be found elsewhere in London, damage to these sites would mean a significant loss to the borough. As with metropolitan sites, while protection is important, management of borough sites should usually allow and encourage their enjoyment by people and their use for education. Grade II tend to be smaller sites than Grade I.
- **Sites of Local Importance** are those sites that have a local value such as for local residents or schools. Local sites are particularly important in areas otherwise deficient in nearby wildlife sites. To aid the choice of these further local sites, Areas

of Deficiency (see below) are identified. Further local sites are chosen as the best available to alleviate this deficiency.

1.23 The GLA has provided recent guidance that Borough Grade I and Grade II should be combined into one borough grade type to reflect the importance of the site to the borough. This guidance has been used to inform the review of SINC's in Lewisham.

Lewisham Core Strategy (Open Space and Biodiversity)

1.24 Core Strategy Policy 12 (Open Space and Environmental Assets) of the Core Strategy Development Plan document states or commits the Council to recognise the strategic importance of the natural environment by actively conserving nature, greening the public realm and providing opportunities for sport, recreation, leisure and well-being.

1.25 These objectives will be met through:

- protecting green corridors from inappropriate built development to ensure there is no adverse effect on their use;
- maintaining green space, open space networks, allotments;
- preserving or enhancing the local biodiversity by designating Sites of Importance for Nature Conservation; and,
- protecting trees, including street trees, and preventing the loss of trees of amenity value, and replacing trees where loss does occur.

1.26 The policy is underpinned through the principles of:

- emphasising protection of existing open space including cemeteries and churchyards, allotments and open space along rivers;
- designating sites which are of nature conservation value to ensure a level of protection;
- supporting Lewisham's biodiversity action plans and using these to conserve Lewisham's biodiversity; and,
- protecting and enhancing open spaces, biodiversity and nature conservation in London.

Lewisham's Biodiversity Action Plan

1.27 Lewisham's Biodiversity Action Plan (2006-2011) is currently being updated (2015-2020), by Lewisham Biodiversity Partnership, a consortium of conservation bodies (including the Environment Agency and the London Wildlife Trust), government and local stakeholders in Lewisham (including Creekside Education Trust). The current

document identifies the contribution of the natural environment to quality of life and sustainable development objectives within the Borough. Specific aims and objectives have been identified to enhance the Borough's habitats and species. Those relevant to this project are listed below:

- **Areas of deficiency:** To reduce areas of deficiency with respect to the Borough's publicly accessible wildlife sites;
- **Green roofs:** To advise and promote the installation of high quality living roofs that deliver the maximum benefit for nature conservation on all appropriate development;
- **Rivers:** To increase the percentage of Lewisham's rivers classified as having good ecological potential. To seek the naturalisation of Lewisham's rivers wherever possible;
- **Railway line-sides:** To promote the protection and appropriate management of railway corridors for biodiversity;
- **Standing water and ponds:** To increase the number of Lewisham's standing water habitats by creating one new pond and restoring four existing ponds (in parks and nature reserves) in the borough per year. Ensure sites of nature conservation importance identify sites in relation to standing open waters;
- **Bats:** To maintain and increase the number of bats in Lewisham;
- **Black redstart:** To maintain the current population and enhance areas for the continued survival of this species;
- **House Sparrows:** To reverse the current decline of house sparrows in Lewisham. Plant 100m of new hedgerows per year in nature reserves, parks and open spaces to improve the house sparrow population in Lewisham;
- **Kingfisher:** To provide the best habitat possible for the kingfisher within Lewisham. Install artificial nest chambers in suitable locations to assist in breeding. Install riverside perches in suitable locations;
- **Stag Beetle:** To retain dead wood in parks and open spaces, where applicable, and incorporate this into management plans. Install 15 stag beetle loggeries per year in nature reserves, parks, allotments and schools; and
- **Song Thrush:** To include the song thrush in management plans for areas within Lewisham with existing or potential for song thrush populations.

2 Methodology

OVERVIEW

- 2.1 The habitat survey was carried out in accordance with the Revised Survey Specification devised by the Greater London Authority (GLA) in 2004 and the Mayor's Biodiversity Strategy (2002) which has been updated from the original survey method developed in 1984/85 by the London Wildlife Trust. A copy of the GLA methodology is provided in Appendix 1 (at the back of this report). The following section sets out details specific to the Lewisham survey providing fuller information where the review of SINC's project deviates from the GLA methodology.
- 2.2 A number of additions have been made to GLA methodology to provide fuller information in the context of Lewisham and in the use of Geographical Information System (GIS). These changes are:
- enable the use of GIS to quantify habitat area for each site; and
 - create new map categories, to identify other habitats of ecological value and relevance to habitat management.

GIS Mapping

Calculating habitat areas

- 2.3 The major difference with the 2015 methodology compared to the GLA methodology (revised in 2003) is the use of GIS to map site habitats in a digital environment, and using computer software to calculate habitat areas. This replaces the section of the survey form which requires the surveyor to estimate the percentage of different habitats for each site. This has reduced the importance of this section of the form except where there is a need to estimate scattered trees that are not shown to scale or recording wetland vegetation which is often too small to map. The 2005 survey recorded habitats by assigning a percentage cover assessed in the field. The percentage is then translated as an area value. None of the habitats are actually mapped. In contrast, the 2016 survey mapped habitats as discrete areas, which were then digitised onto GIS. A combination of field assessment and desk-top analysis of aerial photography was used.

Parcel boundaries

- 2.4 The majority of SINC⁸s in Lewisham (except the very large or complex sites) comprised only one habitat parcel⁸. Due to limited access and visibility, several parcels for Forest Hill to New Cross Gate railway cuttings were amalgamated as they could not be fully surveyed. GIS mapping also reduces the need for parcel boundaries, which were originally created partly to assist habitat mapping. For this reason parcel boundaries have not been digitised. Where new habitat parcels have been created (to provide fuller information within existing SINC⁸s or proposed SINC⁸s) these have been named and boundaries described/mapped on the field survey forms. At Pool River Linear Park one new parcel was created.

Mapping trees

- 2.5 Scattered trees were recorded on the survey forms as a percentage *over and above* the ground-level habitat (e.g. amenity grassland 100%, scattered trees 40%). This was to ensure the ground-level habitat was mapped. The location, abundance and size of trees have been mapped using the JNCC habitat methodology⁹. That is, they are mapped as a separate layer as a series of dots, the density varying depending on the density of trees. The size of dots (and canopy cover) are not to scale..

Mapping new habitats or small features

- 2.6 The Master-Map DWG uses a scale of 1:1250 (unknown date of map) and is able to identify features such as footpaths, woodland areas, grassland, buildings, hard standing and ponds. Where new features have been created in recent years (such as at Ladywell Fields) or where sites were small, habitat extent and location was mapped by eye in the field and cross-referenced using aerial photographs.

Mapping in 2D

- 2.7 Phase 1 habitat mapping is a simplification of the real world. This limits the ability to map habitats below the woodland or tree canopy. To ensure the information on the map is readable, certain habitats (e.g. rivers, ponds, hard-standing paths) have been mapped within woodland, even though the tree canopy may have been continuous across the

⁸ A habitat parcel is an area of land that is relatively homogenous in terms of its nature conservation value, land ownership and use. The majority of SINC⁸s in Lewisham consist of only one parcel. Some SINC⁸s that are large, or complex comprise more than one habitat parcel e.g. Beckenham Place Park.

⁹ JNCC (2010). Handbook for Phase 1 habitat survey: A technique for environmental audit. JNCC. Peterborough

entire area. This needs to be taken into consideration when reading the habitat maps for different sites and at different scales.

Mapping orientation

The habitat maps are all laid out in landscape format, scaled at A3. In most cases, the north arrow faces up, but a number of sites (which are big or wide), have been orientated a different way in order to fit the site onto one or two map pages. For these sites, the map should be read sideways, so that the hatching relates correctly with the habitats on the map. There is potential confusion between the habitat hatching for “roughland”, “tall herbs” and “acid grassland” which all look quite similar.

Map references

2.8 Habitat maps refer to the SINC reference number and site name. No reference is made to the open space number. Other open space boundaries and SINC habitats are shown on the maps to provide context.

2.9 The 10 candidate SINC were given a temporary number (N/A01- N/A10). These are as follows:

- N/A1: Blythe Hill Fields
- N/A2: Cornmill Gardens
- N/A3: Deptford Park
- N/A4: Lewisham Park
- N/A5: Northbrook Park
- N/A6: Southend Park
- N/A7: Luxmore Garden
- N/A8: Friendly Garden and Deptford Railway Meadow
- N/A9: Longfield Nursery Allotment
- N/A10: Sedgehill School

2.10 Three sites are listed in the GIS data under a slightly different name to those provided by the borough. This means that the habitat and boundary change maps (Appendix 2 and 4) for these three sites are referred to as:

- LeBII15H: Hither Green Station *instead of* Hither Green Railsides; -
- LeBII15E: St. Johns Station *instead of* St. Johns to Lewisham rail-sides;
- LeBII07: Grove Park Cemetery and Chinbrook Orchard *instead of* Grove Park Cemetery.

brown roofs) are typically sparsely vegetated, with patches of flowering herbs and grasses.

Buildings

- 2.16 This category was created to provide definition to the habitat maps. Although buildings are bare-artificial habitat (and could be categorised under the corresponding existing habitat) they offer potential for roosting bats and nesting birds, which does not apply for ground level artificial habitat.

SURVEY PREPARATION

Desk Study

- 2.17 Information regarding the present and historical ecological interest of Lewisham was obtained from GiGL, the London Borough of Lewisham and the Green Infrastructure Consultancy (GIC). This comprised the following datasets:

Map data

- Site boundaries of existing SINC¹⁰s and open spaces¹⁰;
- Lewisham AoD;
- Lewisham Master-Map Data;
- Other open spaces and green corridors;

Habitat data

- Habitat parcel boundaries for existing SINC¹⁰s recorded in 2005;
- Habitat types per habitat parcels (centre point dataset in Excel format) surveyed in 2005;
- Existing SINC citations;
- Green roof data (Green Infrastructure Consultancy);

Species data

- Species data for GIGL comprising bird point records, designated species point data and other taxa point data.

- 2.18 Species data obtained from GIGL that fell within or intersected the site boundary only was collated for each site to document biological records from the last 10 years (2006

¹⁰ The term GIGL SINC¹⁰s is used in the map legend in Appendix 3 and Appendix 6

– 2015). London and Lewisham BAP Priority Species recorded from within the site were included in the assessment. Incidental records from site owners were also collected as were surveyors' field observations during the site visit.

Field Survey

Field survey forms

2.19 All relevant sections of the field survey form were completed for each habitat parcel as per the GLA methodology. Additional information was provided on the following:

- Presence of habitats considered to meet the criteria for Habitats of Principal Importance in England and BAP habitats relevant to Lewisham were noted on the survey forms where relevant;
- The presence of any 'notable' species could include Red data list species or Species of Principal Importance¹¹; Species listed on Schedule 5 and/or 8 of the Wildlife and Countryside Act, 1981 (as amended); axiophytes (quality indicators) using guidance published by the Botanical Society of the British Isles¹²; and species identified as notable in Greater London by the London Biodiversity Partnership¹³; and
- Target notes were used to provide the location of features that were too small to map (e.g. tree with bat roosting potential, presence of invasive species, stag beetle loggery). Area target notes were used to identify small areas of dry or neutral grassland within larger expanses of amenity grassland Appendix 2 provides a list of target note for relevant sites.

Site access

2.20 The majority of SINC's within Lewisham were freely accessible during daylight hours. For sites that were privately owned or locked, Lewisham's Ecological Regeneration Manager provided access details. A letter (via email) was sent to the landowner or leaseholder providing fuller information on the reasons for the survey along with some questions about site ownership/ management. This was followed up by a phone call. If

11 JNCC (undated). Conservation designations for UK taxa [on-line] <http://jncc.defra.gov.uk/page-3408> (accessed March, 2014).

12 Botanical Society for the British Isles (BSBI) (undated) Axiophytes. [on-line]. <http://www.bsbi.org.uk/axiophytes.html> (accessed March, 2014).

13 London Biodiversity Partnership (undated). London's BAP Priority Species. [on-line] <http://www.lbp.org.uk/londonpriority.html> (accessed March, 2014).

after three calls contact could not be established, the site was surveyed from its boundaries as recommended by the GLA guidance.

Fieldwork

- 2.21 The main fieldwork was undertaken from mid-April to mid-July 2015, with woodland surveys undertaken between mid-April to mid-May to enable the recording of vernal flora. Following a gap analysis, a second batch of additional field surveys were undertaken between October to December 2015. Most sites were visited more than once to check habitats and ensure recommendations were appropriate. Field survey information was recorded on A4 field survey forms which followed the GLA format.
- 2.22 The survey team comprised Rosie Whicheloe, Annie Chipchase, Georgina Knibbs and Matt Pendry, all competent botanists with a minimum level of FISC 4¹⁴ and with experience of London habitats. The main surveyor and project manager, Rosie Whicheloe, is also a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

RESULTS

Habitat type, extent and distribution across the borough

- 2.23 The main findings of the 2015 survey are summarised in this section. This included the extent and quality of habitat in the borough and the distribution of habitat types across SINC^s and proposed sites.

Habitat change analysis

2005 - 2015

- 2.24 This section compared the 2015 habitat survey data with data collected in the previous Review of SINC^s undertaken in 2005. Habitat change statistics have been provided in the form of two bar charts illustrating the change of habitat area between the two survey dates. The results and potential reasons for differences are addressed in the preceding paragraphs for native and non-native woodland, scrub, orchard, grassland, ephemeral vegetation and wetland habitat. Where substantial increases or losses have occurred, the assessment draws upon site-level information, contemporary aerial photographs

¹⁴ Field Identification Species Certificate, awarded by the University of Birmingham and BSBI

and evidence in the field to provide fuller explanation as recommended by the GLA methodology (Appendix 1).

2.25 Following a gap analysis, four additional sites were identified as being of value to survey as part of the SINC review. These comprised the Friendly Gardens and Deptford Railway Meadow, Luxmore Gardens, Sedgehill School and Longfield Nursery Allotments. As these were surveyed in late in 2015, they have not been included within the habitat change assessment.

Data simplification

2.26 The 2005 habitat data required reconfiguration and simplification to enable comparison with the 2015 survey data. The main differences were:

- 2005 habitat parcels did not coincide exactly with SINC boundaries surveyed in 2015;
- Scattered trees had been assessed as part of the habitat area providing no information of the ground-level habitat; and
- Hedges and vegetated walls/tombstones had been assessed as a percentage rather than as a length measurement.

2.27 To enable comparison of the two datasets a number of simplifications were made to the bar charts These included:

- areas of bare ground was combined with ephemeral vegetation;
- areas of improved grassland was combined with amenity grassland;
- areas of scattered trees was combined with the appropriate ground habitat type¹⁵;
- scattered trees were not quantified; and
- native and non-native hedges and vegetated walls and tombstones were quantified as linear features.

¹⁵ This was determined by surveyor experience of the site and/or professional judgement

Site Interest

Wildlife interest

2.28 This section summarised the main findings relating to wildlife interest (potential and actual) as recorded on the field survey form (per parcel) during the field survey and through desk-study collation of biological record data.

Botanical richness

2.29 This was assessed qualitatively and during the field survey by four field surveyors, and because of this there is likely to be some variation. However, it does, provide an impression of relative species richness across the borough and implications for site management which are discussed at the site level. Higher plants identified during the survey were recorded on the habitat parcel form or species card. Records returned by the data search are also summarised in this section.

Threats and disturbances

2.30 This section summarised the threats and disturbances recorded during the field survey which could jeopardise the conservation status or features of ecological value for which the SINC was designated. These were discussed in five broad categories: safety and security; tipping and litter; dogs; invasive plants; development and lastly erosion damage and habitat degradation. Reference to specific sites have been given, where appropriate.

Opportunities for enhancement

2.31 This section summarised the opportunities for enhancement recorded during the field survey. Information was collated under three broad categories: woodland habitats, wetland habitats and grassland habitats and common themes identified. Reference to specific sites has been given, where appropriate. Other recommendations have also been provided that may be relevant to multiple sites, including non-SINCs.

Green roof data

2.32 This section summarised the green roof data provided by the Green Infrastructure Consultancy, in relation to its pattern and proximity to existing SINCs. Recommendations are provided regarding updating this information in the future.

SINC Citations

2.33 All existing SINC citations were updated to include 2016 species data, new habitats or features mapped during the field survey and any proposed boundary changes. (Appendix 4). This is to ensure information on the site citation justifies its current or proposed designation. New citations were written for proposed SINC's providing full description and justification for their inclusion in the SINC series and in accordance with the GLA SINC selection criteria. The following information has been provided for each site where relevant:

- site code and name (highlighted in red if this has been changed);
- borough grade (highlighted in red if this has been changed);
- grid reference (hyperlink grid reference to site location on google website);
- area in hectares: existing area with new area as a result of boundary change (in red);
- habitats – relating to vegetation types mapped in Appendix 2 (note some habitats are too small and are mentioned here or in the text only);
- access: existing access to site;
- ownership: existing ownership details;
- introductory paragraph for SINC's that form part of the strategic river or rail habitat corridors;
- description of site:
 - list of habitat types found on site and including reference to ancient or secondary woodland, veteran trees where relevant;
 - main habitat types and their nature conservation value;
 - recorded Habitats of Principal Importance and London/Lewisham BAP habitats;
 - value of habitats to specially protected species and Species of Principal Importance and species groups;
 - current management;
 - current or proposed enhancement works;
 - value to the community;
 - wider ecological value (e.g. as a habitat corridor); and

- likely ownership and boundary changes (in red); and
- date when site boundary or citation was last updated.

2.34 The citations represent the results and recommendations of the report and field survey. All proposals relating to SINC boundaries, designations, names and codes are included following consultation and agreement with the borough planning officer. The habitat maps provide base-line information, including existing SINC codes and names. There will therefore be a discrepancy between the two. Proposed boundary changes are provided in map form and as justifications in the recommendations part of the report.

RECOMMENDATIONS

2.35 This section provides details on the proposed changes to the SINC series and candidate sites including information on proposed boundary changes, name changes, habitat linkages and opportunities for enhancement. A number of sources were used and included:

- reviewing SINC citations and determining if features for which the sites were listed remained in good condition;
- identifying changes in habitat area between 2005 and 2015;
- identifying potential presence of protected species;
- identifying the presence of Habitats and Species of Principal Importance, and regional or local BAP priority habitats and species;
- location of existing habitat corridors; and
- whether the site counts towards alleviating areas of deficiency (AoD).

2.36 A conclusion was drawn for each site as to whether any change in designation is required, with one of the following scenarios being proposed:

- Existing SINC exceeds level at which it was designated – recommend upgrade;
- Existing SINC meets current level at which it was designated – recommend no change;
- Existing SINC no longer qualifies at level it was designated – recommend downgrade;
- Proposed site qualifies as a Site of Local or Borough or Metropolitan Importance - recommend new designation; and
- Proposed site has been assessed as unlikely to meet the GLA SINC criteria – recommend no change.

2.37 Recommendations for extending site boundaries has been based on ecological considerations and do not take into account feasibility or potential planning policy constraints. Consideration has been given on providing practical /meaningful recommendations from professional experience.

Areas of Deficiency

2.38 The London Plan sets out a desirable maximum distance which Londoners should travel in order to access public open space. Locations beyond these maximum distances are classified as Areas of Deficiency (AoD). GiGL has developed a method of accurately mapping AoD that involves locating access points and using network analysis software to calculate walking routes based on Ordnance Survey's information on roads and paths. Any of the changes to the SINC series listed below may affect the size of the AoD. For this reason, GiGL has re-calculated the areas following the recommendations provided in this report.

- upgrading of sites of local importance to that of borough importance;
- downgrading of sites from borough importance to that of a site of local importance;
- changes in boundaries to include or exclude areas for sites of borough or Metropolitan importance; and
- changes to access into sites of borough or Metropolitan importance.

Habitat Linkages

Lewisham's ecological network

2.39 In accordance with the NPPF, and local planning policies, an assessment of existing and potential habitat linkages was undertaken. This was determined using aerial photographs and GIS maps to visualise the location, proximity and density of existing SINC's within the borough and to identify areas that would benefit from enhancement. Ecological networks are recognised as containing a number of components including core habitat areas, corridors and stepping stones, restoration areas and the matrix. These terms are described in Table 2, with specific relevance to what they may mean in Lewisham and London.

Table 2: Terminology used to describe ecological networks (Lawton 2012, GLA 2003 and 2013).

Term	Description
Core areas	<p><i>These are areas of high nature conservation value which form the heart of the network. They contain habitats that are rare or important because of the wildlife they support or the ecosystem services they provide. They generally have the highest concentration of species or support rare species. Core areas provide places within which species can thrive and from which they can disperse to other parts of the network. They include protected wildlife sites and other semi-natural areas of high ecological quality.</i></p> <p>In Lewisham this would include SMI's such as Beckenham Place Park, Blackheath and Forest Hill to New Cross Gate Railway Cutting.</p>
Corridors and stepping stones	<p><i>These are spaces that improve the functional connectivity between core areas enabling species to move between them to feed, disperse, migrate or reproduce. Connectivity need not come from linear, continuous habitats; a number of small sites may act as "stepping stones" across which certain species can move between core areas. Equally, a land mosaic between sites that allows species to move is effectively an ecological corridor.</i></p> <p>Lewisham has a good number of SINC's that are located along major rivers (River Ravensbourne, River Quaggy, River Pool and River Thames) and railways (South Bermondsey to Blackheath, Lower Sydenham, Lee, Grove Park and Ravensbourne) forming important habitat in their own right and acting as corridors or stepping stones for species dispersal.</p> <p>GLA make reference to suburban gardens, green corridors including railways, rivers and cycle routes. If not included in SINC's these areas are mapped for planning purposes and referred to as "Wildlife Corridors" and would be included in this category.</p>
Restoration areas	<p><i>These are areas where measures are planned to restore or create new high value habitats so that ecological functions and species populations can be restored. These areas may become core habitat areas in the future or be situated so as to complement, connect or enhance existing core areas.</i></p> <p>In Lewisham this would include the habitat enhancements being made in the centre of Lewisham along the River Ravensbourne.</p>
Matrix	<p><i>The matrix represents the predominant habitat or land cover within an area. This could be arable land within the countryside or buildings within a city. Large areas of housing, roads and industrial areas can be pretty hostile for wildlife.</i></p> <p>Apart from SINC's and amenity open spaces, Lewisham is predominantly buildings and roads. Some areas are very built up such as around Deptford and Lewisham.</p> <p>These areas can be softened by the planting of street trees, planting window boxes or roadside planting, green walls, rain gardens and green roofs.</p>

LIMITATIONS

- 2.40 Whilst every effort has been made to provide a comprehensive description of the sites, no investigation can ensure the complete characterisation and prediction of the natural environment.
- 2.41 The assessment of protected or notable species provided a preliminary view of the likelihood of protected species occurring on site, based on the suitability of the habitat, known distribution of the species in the local area provided in response to our enquires, and any direct evidence of the site. It should not be taken as providing a full and definitive survey of any protected species group.
- 2.42 The field survey does not constitute a full botanical or protected species survey and for this reason where a SINC citation stated the presence of notable or rare plant or animal species, which were subsequently not recorded in the 2015 survey, this would not affect the site's designation, unless there were strong reasons to suggest that the feature of interest was unlikely to remain.
- 2.43 It is important to note that, even where data is held, a lack of records for an identified geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simple under-recorded.
- 2.44 Access to privately-owned sites was not always possible. This was due to a number of reasons including:
- sites being locked (Whitefoot Recreational Ground, Loat's Pit, Sedgehill School, Brockley Nature Reserve – part of Forest Hill to New Cross Gate Railway cutting, and the Railway Meadow);
 - due to operational railway land (12 SINCs in total);
 - construction works at Rainsborough Avenue Embankments; and
 - dense vegetation next to water-bodies at River Ravensbourne and Brookmill Park, Sydenham Wells Park and Pool River Linear Park;
 - impenetrable vegetation (Hither Green Sidings).
- 2.45 A combination of field survey, aerial photography interpretation and professional judgement was used to determine what habitats are likely to be present in areas not accessible by foot. However, in most cases surveying was possible from publically accessible vantage points (such as from bridges or adjacent roads or open space).

- 2.46 Small areas of wetland habitats that occurred around the periphery of ponds or rivers are difficult to map accurately on large sites. This has affected how certain habitats including marginal vegetation, reed and Typha swamp, fen carr, ponds (standing open water) and rivers and streams (running water) have been mapped and quantified. Stands of bracken and common reed have been target noted and not mapped.
- 2.47 Target notes represent features identified during the field survey. They do not represent a complete list of potential features (e.g. roosting value for bats). Their location is approximate only as they have not been mapped using hand-held GPS.
- 2.48 The 2015 SINC re-survey excluded the River Thames SMI. This was due to only a small proportion of the habitat being located within the borough.
- 2.49 Surveying at different times of the year is likely to influence the habitats that are mapped. For example, a recently established wildflower meadow at Queenswood Nature Reserve, was recorded as bare ground in early summer, but following a second visit (to survey their green roof) in August, it supported other herb-rich grassland. Similarly, where ponds were dry at the time of survey these were mapped as bare ground and target noted, but these may become ponds at other times of the year. This should be taken into consideration when using the maps.
- 2.50 Due to the size and impenetrability of Hillcrest Woodland Site of Borough Importance in Sydenham, it was not possible to survey the whole site. Therefore, recommendations on changes to the sites boundaries have not been possible.
- 2.51 Despite these limitations, it is considered that this report accurately reflects the habitats present within the borough, their biodiversity value and provides a robust evidence base to support the selection of new SINC sites and inform new policies.

3 Results

LEWISHAM'S HABITATS

Overview

3.1 The main findings of the survey were:

- The urban context of the borough and the amenity needs of the local population was evident by the high proportion of amenity grassland, which equated to 135 hectares (ha) recorded. The large parks, namely Beckenham Place Park, Sydenham Wells Park, Forster Memorial Park, Hilly Fields, Mountisfield and Mayow Park contributed greatly;
- The borough contained 122ha of semi-improved neutral grassland, with large areas at Beckenham Place Park (31ha), Blackheath (35ha), Hither Green Cemetery Lewisham Crematorium and Reigate Road Open Space (16ha) and Durham Fields (7.5ha). The remaining 25ha were spread across 49 other sites;
- 16.4ha of “*Other*” herb-rich neutral grassland was recorded with a large proportion occurring in three sites namely Beckenham Place Park (2.4ha), Durham Fields (3.4ha) and Blythe Hill (1.2ha). The remaining 3.4ha was spread across 14 other sites. The composition of species meets the criteria for the London BAP Priority Habitat “meadows and pastures” but not the Habitat of Principal Importance-Lowland Meadow;
- Six hectares of acid grassland, a UK Habitat of Principal Importance and a BAP Priority Habitat in London was recorded at Beckenham Place Park, Blackheath and Bromley Hill Cemetery;
- Creekside Education Centre and Pepys Park Nature Area supported the largest areas (1ha) of species-rich ephemeral and ruderal vegetation on previously developed land. Due to their limited extent *only*, they do not meet the criteria for the Habitat of Principal Importance ‘open mosaic habitat on previously developed land’. However, they would be considered to meet the criteria for the London BAP Priority Habitat Wasteland. Small areas of ephemeral vegetation occurred across seven other sites (2 ha in total), including at Hilly Fields, Beckenham Place Park and Sue Godfrey Nature Reserve;
- Deciduous woodland is well represented in Lewisham with 97ha in total of which 57ha is native. Ancient woodland, a UK Habitat of Principal Importance, is located at four sites, notably Beckenham Place Park, Forster Memorial Park, Downham

Woodland Walk and Hillcrest Woodland. This was identified partly from existing records and confirmed by the presence of ancient woodland indicator species including wild service tree, native bluebell, solomon's-seal, wood anemone, wood melick, wood millet and dog's mercury. The former was located within Beckenham Place Park and Downham Woodland Walk.

- Approximately 50ha of woodland in Lewisham is likely to meet the criteria for the Habitat of Principal Importance Lowland mixed-deciduous Woodland. All types of woodland in London are included in the BAP Priority Habitat, although native woodland is naturally more valuable to wildlife¹⁶. The greatest proportion of both native and non-native woodland was located within Beckenham Place Park (24ha), Forest Hill to New Cross Gate Railway Cutting (19ha), Hillcrest Estate Woodland (7ha), Hither Green Railsides (6ha), Nunhead Cutting (3ha) and Pool River Linear Park (3.4ha). The majority of non-native woodland was located within the 11 railway sites, with the largest amount in Forest Hill to New Cross Gate Railway Cutting (11.8ha) where 7.2ha of non-native woodland was present;
- Standing water occurred in small areas over a large number of sites (2ha across 23 sites). Marginal vegetation was recorded at only 10 of these. Marginal vegetation associated with running water (rivers and streams) was mapped at seven sites;
- A mature hedgerow with several trees was recorded at Sedgehill Allotments. From records, this was known to be ancient, but it was not possible to confirm due to restricted access. It is possible it could meet the criteria for an "Important hedgerow" as defined by The Hedgerows Act 1997¹⁷. A long hedgerow located along the Green Chain Walk (next to Chinbrook Allotment and Community Orchard and Grove Park Allotment) may also meet this criteria for its value as a habitat corridor and bordering the Green Chain Walk;
- All native hedgerows greater than 20m long meet the criteria for the Habitat of Principal Importance, Hedgerow. A total of 3.4km of native hedgerow was recorded within 18 SINCs. The largest was located at Chinbrook Allotment and Community Orchard (697m), Pool River Linear Park (553m), Sedgehill Allotments (358m), Telegraph Hill and Mountsfield (234m and 268m) respectively. Three proposed

¹⁶ Native plants function in multiple ways to create an ecosystem, whilst non-native plants may fulfil only part of the role, and thus potentially causing losses to bio-diversity and function.

¹⁷ Further information can be found at <http://naturenet.net/trees/hedgerow/>

SINCs have recorded, a total of 385m of native hedgerow with the majority (268m) located in Blythe Hill;

- A total of 728m of non-native hedgerow has been recorded in 10 sites and 451m of vegetated walls/tombstones have been recorded in seven sites;
- Six biodiverse green roofs and two sedum roofs were recorded within or adjacent to SINCs. Creekside Education Centre and Queenswood Nature Garden supported species-rich wasteland habitat whilst the green roof at Horniman Gardens, Horniman Railway Trail and Horniman Triangle comprised primarily semi-improved grassland at the time of survey (August, 2015).

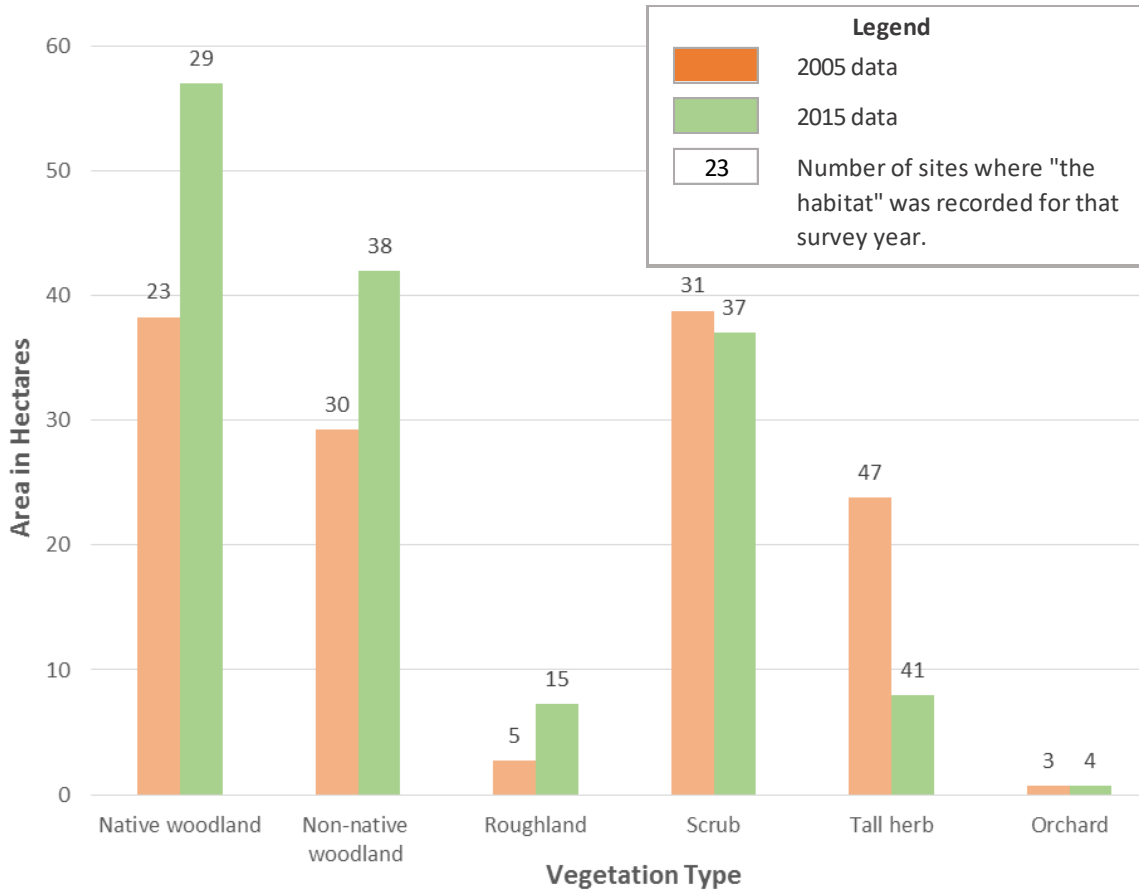
Habitat change analysis

- 3.2 The habitat change analysis was undertaken by comparing survey data collected in 2015 with data collected in 2005. Using the GLA methodology the data for both survey dates was grouped within habitat parcels, with some sites containing more than one habitat parcel depending on land ownership and habitat types present. The main difference between the two survey dates were that habitats recorded in 2005 referred only to percentages (e.g. acid grassland- 30%, amenity grassland 50% and scrub 20%), whilst those in 2015 were mapped in GIS. The two methods are likely to generate some differences in assessment of habitat cover. Other issues included minor discrepancies between parcel boundaries for the two survey dates. For these reasons the habitat change results should be viewed as a guide only.

Wooded habitats

- 3.3 Figure 1 below illustrates the habitat area in hectares (ha) of woodland and other woody habitats in 2005 as a comparison to that recorded in 2015. The figures above the bars show the number of sites.

Figure 1: Habitat change from 2005 – 2015: Wooded habitats



Woodland & scrub

- 3.4 Native and non-native woodland have increased in a similar pattern since 2005, both in terms of area and number of sites. This is likely to be attributed to succession, surveyor assessment, and habitat mapping scale.

- 3.5 Habitat succession may contribute partially to the area increase, particularly for non-native woodland, which may have established new areas along railway lines and river corridors. However the increase in roughland and decrease in scrub, and tall herbs are unlikely to relate entirely to habitat change over the 10 years and may be attributed more to mapping accuracy through the use of GIS.

- 3.6 The large number of new sites where woodland has been recorded is likely to be attributed to habitat assessment by the surveyor. Areas of densely scattered trees with grassland or tall herb or scrub understorey could be mapped either as these habitat types *or* as woodland, depending on site conditions, such as maturity of trees and habitat management. This is particularly relevant along railway, river corridors and along site boundaries, where relaxed management allows for ground vegetation to become

overgrown and allowing for a woodland habitat to develop. This has affected habitat data at Brockley Hill Park, Lewisham Park, Folkestone Gardens, Pool River Linear Park, River Quaggy and Manor Park, Southend Pond and Manor House Gardens and many of the railway SINC. Many of these areas of woodland are small but can be valuable for wildlife in the context of more managed scattered trees and grassland, which can predominate urban parks.

- 3.7 A large amount of woodland within the borough contained a mixture of both native and non-native trees, consisting of former parkland trees such as Turkey oak, London plane, evergreen oak, horse chestnut and sweet chestnut along with more recent colonisation by sycamore, tree of heaven and false acacia. Assessment of whether an area of woodland is 75% native or non-native within any given area depended on visibility (restricted along railway sites or in dense vegetation) and scale of mapping. Habitat mapping using GIS is likely to provide a more detailed picture of woodland composition than the previous methodology, which assessed habitat composition within parcels as a whole rather than mapping to Master-map detail.

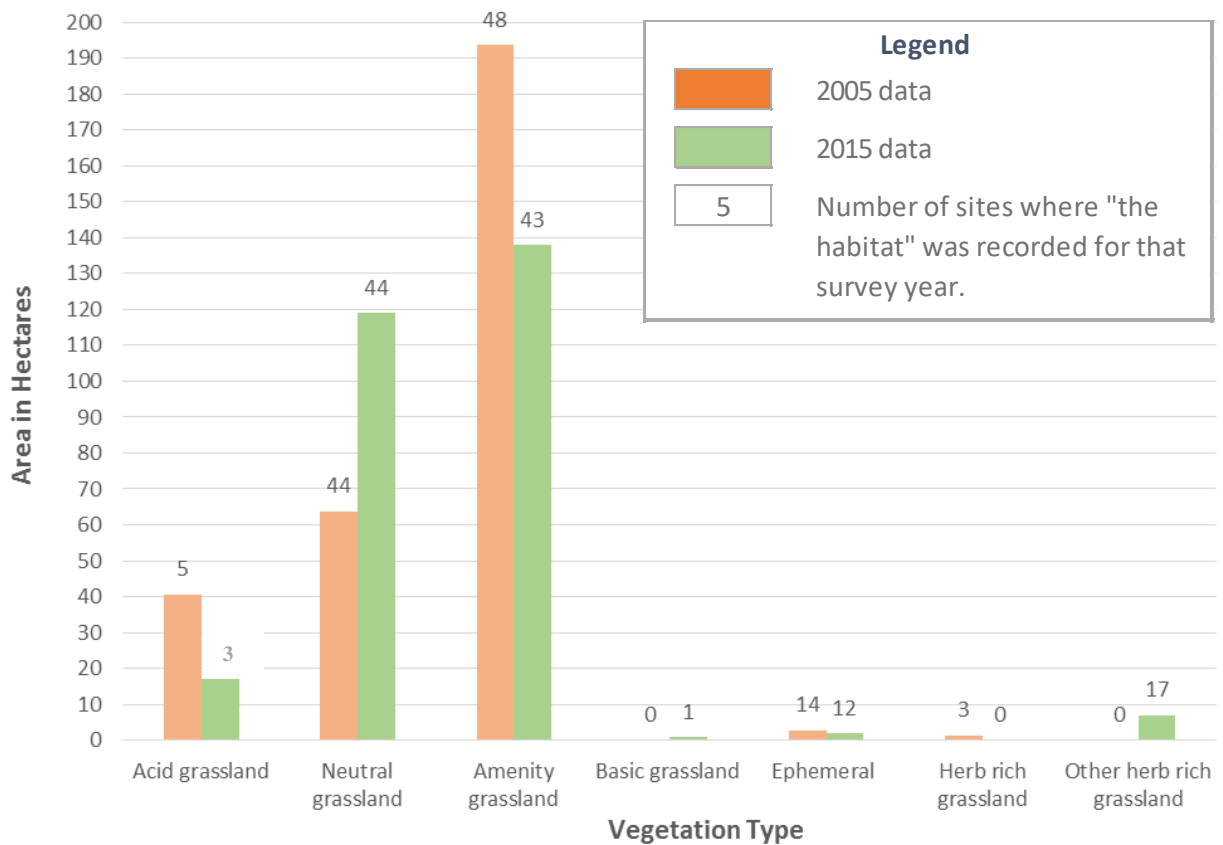
Orchard

- 3.8 There has been a slight increase in area from 2005 to 2015 due to recent planting at Horniman Gardens. Most orchards do not form a closed canopy (due to their young age or small form) but have been included in this category as they represent a discrete habitat type where they have occurred. Gilmore Road Triangle in 2005 recorded (0.07ha, 10%) orchard to capture the presence of a number of old pear trees (possibly a former orchard). In 2015, these trees have been noted on the survey form, but not mapped as orchard at this site. Iona Close Orchard has not been mapped as an orchard due to its overgrown and wooded appearance, even though it contains a number of old fruit trees.
- 3.9 Semi-mature fruit trees including apple, domestic plum, common pear and fig were also found at a number of SINC. including railway embankments, abandoned allotments at Hither Green Sidings and in hedgerows.

Grassland Habitats

- 3.10 Figure 2 below shows the proportion of grassland habitats in 2005 as a comparison to that recorded in 2015. The figures above the bars relate to the number of sites which recorded these habitats.

Figure 2: Habitat change from 2005 – 2015 – Grassland



Acid grassland

3.11 Acid grassland is a Habitat of Principal Importance and a London BAP Priority Habitat and can be susceptible to loss or degradation from eutrophication via atmospheric pollution, re-seeding or grassland enrichment. There was an apparent decrease in acid grassland from 69ha to 22ha between 2005 and 2015 documented in Table 3 below. However, this is a huge loss while the management practices have remained the same over the 10 years, so the differences in values are more likely attributed to a different interpretation of the GLA habitat criteria as a result of surveyor assessment and the mapping methodology. The 2005 survey recorded habitats by assigning a percentage cover assessed in the field. The percentage is then translated as an area value. None of the habitats area mapped spatially. In contrast, this recent survey mapped habitats as discrete areas, which were then digitised onto GIS. A combination of field assessment and desk-top analysis of aerial photography were used.

Table 3: Change in recorded acid grassland between 2005 – 2016

Site Name	Hectares recorded 2005	Hectares recorded in 2016
Beckenham Place Park	40	7.4
Blackheath	28	14.4
Brockley and Ladywell Cemeteries	0.74	Not recorded
Bromley Hill Cemetery	0.39	0.06
Honor Oak Covered Reservoir	0.02	Not recorded

- 3.12 A number of other SINC's and proposed sites supported small areas of dry or neutral grassland. These areas have been identified by a target note and were typically more species rich and "hidden" within larger expanses of amenity grassland and will have implications on grassland management. These occurred at Sydenham Wells Park, Mayow Park, Horniman Gardens, Horniman Railway Trail and Horniman Triangle, Lewisham Park, Honor Oak Covered Reservoir and St Mary's Churchyard.
- 3.13 The presence of dry or grassland within the borough is of value to wildlife, particularly less common species of invertebrates and vascular plants. The less fertile, often parched ground conditions provide niche habitats for solitary bees and plants such as hare's-foot clover.
- 3.14 At Brockley and Ladywell Cemeteries, 0.74ha of acid grassland was recorded in 2005 but not recorded in 2015. Due to the overgrown nature of the site, this area could have been missed during the field survey as it was not previously mapped. However, it is probably more likely that vigorous grasses such as false oat grass and Yorkshire fog have become more widespread over the years and have outcompeted acid grassland species in this area.
- 3.15 Reference to acid grassland was also noted on citations for Forest Hill to New Cross Gate Railway Cutting (SMI), Rainsborough Avenue Embankment and Sayes Court but were not recorded in the corresponding 2005 GIS data. Acid grassland may still be present in the SMI as it is a large site, with many areas inaccessible including the nature reserve managed by the London Wildlife Trust. Acid grassland was not recorded in the two smaller sites, Rainsborough Avenue Embankment was being intensively used as a dog exercise park.

Herb-rich grassland

- 3.16 Herb-rich grassland was recorded across 1.4ha in three SINC's in 2005 located at Beckenham Place Park (southern parcel next to Sydenham Station), Ladywell Fields (parcel that contains the railway sidings) and Grove Park Cemetery, whilst none were recorded in 2015. Potential reasons for this were that the former two sites could have been lost to succession. Survey timing may be the result of the under-recording of this grassland type at Grove Park Cemetery due to the meadow area having been recently cut prior to survey. Furthermore certain indicator species such as adder's tongue and marsh marigold are more prominent in spring before the main growth of grassland has started, and thus may have been missed.
- 3.17 The lack of recorded herb-rich grassland does not mean the borough is devoid of species-rich grassland, but that the species required to meet the criteria typically occur in old grassland with restricted distribution. A large proportion of grassland within the borough contain species with a wider distribution but are still uncommon within the borough, restricted to large and well established sites of borough importance or higher. Some areas have also been recently seeded with wildflower mixes of similar composition favouring more basic-tolerant herbs. Many of the indicative species of the GLA criteria occur primarily in wet, acid grassland. For this reason, the new category named "*Other herb-rich grassland*" was created and recorded 14ha within the borough. These areas typically contained good abundances of common knapweed, ox-eye daisy, ladies bedstraw and bird's foot trefoil, field scabious, greater knapweed and agrimony. Collectively they provide a rich foraging resource for invertebrates and were typically being managed less intensively from surrounding amenity grassland.

Ruderal and ephemeral

- 3.18 Ephemeral and ruderal vegetation was recorded in a similar number of sites for both survey years. Typically this vegetation type occurred in small areas in combination with bare ground often along railway lines such as at St Johns to Lewisham Railsides Sidings where it was recorded in 2005 and 2015. It is also associated with disused plots in Chinbrook Allotments and Community Orchard.
- 3.19 Pepys Park Nature Area recorded bare ground in 2005 and ephemeral vegetation in 2015, suggesting succession and management has increased this habitat type in this situation. Ephemeral vegetation was recorded in both survey years for Creekside Education centre, but slightly decreased in 2015 as a result of a new wildlife pond having been created in recent years.

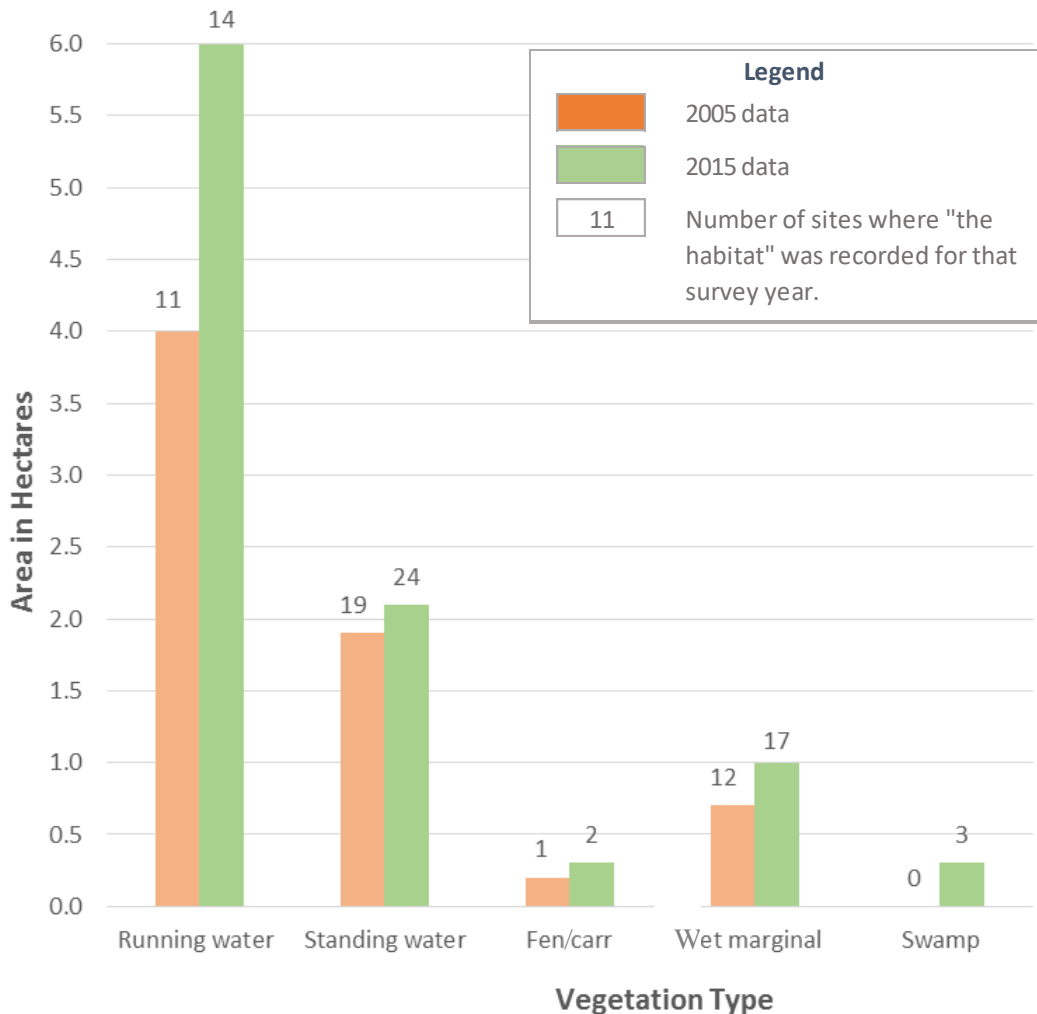
Basic grassland

3.20 Grove Park Nature Reserve, recorded 0.7ha of basic grassland, the only site in the borough to record this grassland type. In 2005, it was recorded as semi-improved neutral grassland. Anecdotal evidence for basic grassland had also been noted on the citation for several other sites. These included Brookmill Nature Reserve and Loat's Pit. Although not recorded in the 2015 survey it might be that scrub encroachment may have obscured its presence on these sites.

Wetland Habitats

3.21 Figure 3 below shows the area (in ha) for wetland habitats in 2005 as a comparison to that recorded in 2015. The figures above the bars relate to the number of sites where the habitat has been mapped.

Figure 3: Habitat change from 2005 – 2015 – wetland habitats



3.22 Following river restoration and habitat enhancements at Chinbrook Meadows, Ladywell Fields and River Quaggy and Manor Park, there has been an increase in area of wetland;

including fen/carr (and species-rich fen), swamp and standing water. Habitat enhancements have recorded new areas of swamp within Dacre Woods Nature Reserve and adjacent railway habitat and Chinbrook Meadows where it has not been recorded previously. Nine additional SINC, some of which recorded standing water in 2005, now also support marginal vegetation, including Besson Street Community Garden, Creekside Education Centre, Grove Park Nature Reserve, Hither Green Cemetery, Lewisham Crematorium and Reigate Road Open Space, Horniman Gardens, Horniman Railway Trail and Horniman Triangle, Ladywell Fields, Queenswood Nature Reserve, River Quaggy and Manor Park and Telegraph Hill. Wet marginal vegetation has also increased slightly at Sydenham Hill Park.

- 3.23 The figures for standing water are likely to be slightly conservative due to several ponds being dry at the time of survey and recorded as bare ground. Conversely, the figures for running water may be slightly exaggerated due to the difficulty of mapping marginal vegetation to scale on large sites. This is particularly relevant to Ladywell Fields.

SITE INTEREST

Wildlife interest

Birds

- 3.24 Almost all sites had some value to birds; this can be attributed to the majority of sites containing planted shrubbery, scrub and scattered trees of some value to widespread but declining species of birds, such as house sparrow, one of Lewisham's flagship species. SINC that contained large expanses of short-cut grassland, including Hilly Fields, Blackheath, Beckenham Place Park and Mayow Park, are also known to support numbers of song thrush and mistle thrush, which forage in grassland, the former is also one of Lewisham's flagship species.
- 3.25 SINC that contained large areas of woodland support important bird assemblages in the context of the borough. For example, species such as kestrel, all three woodpeckers and tawny owl have been recorded in Beckenham Place Park. SINC that contain sections of river habitat afford regular visits from kingfishers, a Lewisham flagship species. Little egret and grey heron are also frequent visitors. Habitat enhancements along the River Ravensbourne and Brookmill Park, Ladywell Fields, Pool River Linear Park and Chinbrook Meadows have improved foraging and cover for a wide variety of birds. For example there is now a population of 100 plus house sparrows that roost in dense scrub along the Ravensbourne at Cornmill Garden.

Mammals

- 3.26 Potentially suitable habitat for mammals was recorded at a large majority of SINC's and proposed sites due to the large areas of woodland, numerous habitat corridors and the relative large size of many SINC's (average size of 9ha) within the borough. Foraging bats are well recorded, except on the smallest sites, with records for foraging noctule and common and soprano pipistrelle frequently identified. Daubenton's bats have also been recorded foraging at Sydenham Wells Park.
- 3.27 Hedgehogs have been recorded at Dacres Wood and adjacent railway habitat, at Garthorne Road Nature Reserve, part of Forest Hill to New Cross Gate Railway Cutting, Bridgehouse Meadows and Hither Green Nature Reserve. No badgers have been recorded in recent years, Foxes, although not a species of conservation concern, are widespread in the borough.

Reptiles

- 3.28 Reptiles have been recorded at five SINC's, all of which are located along or adjacent to existing railway corridors. Common lizards have been recorded at Grove Park Nature Reserve, Bridgehouse Meadows and Forest Hill to New Cross Gate Railway Cutting (SMI), and Chinbrook Meadows and Community Orchard, whilst slow worms have been recorded only at the SMI. Records for Bridgehouse Meadows pre-date the construction works which were completed in 2012, but mitigation was put in place for common lizard and slow worms at this site.

Amphibians

- 3.29 Most sites with standing water supported common toad and common frog. A number of SINC's have known populations of common newts including Burnt Ash Pond Nature Reserve, Grove Park Nature Reserve, Hither Green Sidings, Chinbrook Allotments and Community Orchard, Brookmill Nature Reserve, Besson Street Community Garden and Sedgehill Allotments. A candidate SINC site Longfield Nursery Allotment also supported common newts. It is also likely that this species is present in other sites across the borough. Mature vegetation and ponds in private gardens contiguous with SINC's is likely to play a supporting role in maintaining amphibian populations.

Invertebrates

- 3.30 Lewisham is recognised as a key area for stag beetles in London and this species has been recorded at the majority of SINC's in the borough. Mature woodland and trees

within Beckenham Place Park and Downham Woodland Walk are also known to support a number of nationally rare beetles (jewel, leaf, fungus and bark beetles) and a species of ant. The purple hairstreak butterfly has also been recorded at Beckenham Place Park, but may have a wider distribution as it feeds exclusively in the canopy of mature native and turkey oaks, species which occurred along Forest Hill to New Cross Gate Railway Cutting and Lewisham to Blackheath and Blackheath Station SINC.

- 3.31 Widespread but declining invertebrate assemblages are also likely (but under recorded) on individual, mature native trees, of which the borough has a substantial resource scattered within SINC (e.g. Mayow Park), as street trees (e.g. on Whitefoot Terrace, Grove Park) and within social housing land (e.g. around Pagoda Gardens, Blackheath)
- 3.32 Other invertebrates, particular butterflies, are abundant, with over 15 species recorded at Blackheath and Sue Godfrey Local Nature Reserve. Sixty marble white butterflies have been recorded in 2015 at Brockley and Ladywell Cemeteries. The common blue, large white, gatekeeper and meadow brown were recorded at numerous SINC.

Bryophytes, lichens and fungi

- 3.33 This species group has not been well recorded due to the specialist knowledge required to identify species accurately. However, St Mary's Church is known to support a wide variety of lichens. The willow carr (mapped as fen carr) at Beckenham Place Park is also known to support some rare lichens. Mature oak woodland on acid soils creates suitable conditions for fungi and the borough is likely to support a range of species including the beef-steak fungus that is known to occur on oak trees. Large fairy-ring mushrooms are also a notable feature on Blackheath. Beckenham Place Park was the only site that recorded the London speciality zoned rosette *Podoschypha mulzonata*, although it may also occur elsewhere in the borough in suitable habitats.

Botanical richness

- 3.34 Botanical richness was recorded for each survey parcel using a six level grading system ranging from poor to rich. This was a broad assessment based on the surveyors' experience in Lewisham and London. A total of 12 parcels (12 SINC) were recorded as rich and included sites designated at Metropolitan and Borough level, which would be expected. In addition, three Sites of Local Importance were also noted as being particularly rich, namely Ladywell Fields, River Quaggy and Manor Park, and Creekside Education Centre. Three habitat parcels (within three separate sites) were recorded as being species-poor (in context with the site as a whole) and would benefit from targeted

habitat improvements. These areas were: the Prince of Wales Pond at Blackheath, the pond at Southend Pond, and the large central expanse of amenity grassland at Forster Memorial Park.

Higher plants

- 3.35 A number of records for notable higher plants were provided by GIGL. Some of these corresponded to the recent field surveys such as bird's foot clover, clustered clover and crested hair-grass in Blackheath and the native bluebell in Beckenham Place Park, Downham Woodland Walk, Forster Memorial Park and Hillcrest Estate woodland. At Beckenham Place Park, wood melick, Solomon's-seal and wood anemone were recorded in 2015.
- 3.36 Two unusual species; corn spurrey and narrow-leaved pepperwort, had previously been recorded in Pool River Linear Park. Although the latter two were not identified in the recent survey, the complexity of habitats present within this site may have precluded detection. River enhancements across a number of SINC sites have increased the abundance of wet-marginal species such as purple loosestrife, wood small reed, sweet flag, gypsywort and giant and meadow fescue. Chinbrook Meadows supports all of these species as well as common spike-rush and oval sedge. The latter is one of the indicator species for herb-rich grassland, but was not recorded in sufficient abundance to meet the GLA criteria for herb-rich grassland. Forest Hill to New Cross Gate Railway Cutting was particularly diverse in floral species, notables included common restharrow, false wood-brome, yellow loosestrife, marjoram, yellow oat grass and abundant agrimony. Pepper saxifrage was recorded at several sites including Mountsfield Park, Hilly Fields and Lewisham Park. This plant occurred as single recordings in typically grass-dominated semi-improved neutral grassland. Appendix 5 (see separate document) provides a list of notable species recorded during the 2015 survey accompanied by photographs and grid references.

Threats and Disturbances

- 3.37 Overall, there were a limited number of identified threats and disturbances recorded on the field survey forms. The following paragraphs summarise the key issues.

Safety and security

- 3.38 With the majority of sites open access and frequented by local people, there were only four situations where the surveyors felt a concern for their safety. These were Sydenham

Cottages Nature Reserve, Garthorne Nature Reserve (locked part of Forest Hill to New Cross Gate Railway Cutting), Bromley Hill Cemetery and Hillcrest Estate Woodland. Anecdotal evidence from local residents suggested that the River Quaggy and Manor Park and Ladywell Fields, as a result of recent improvements, had improved the feeling of safety. Anti-social behaviour and vandalism was noted at one SINC, notably a burnt-out car at Reigate Road (part of Hither Green Cemetery, Lewisham Crematorium and Reigate Road Open Space. Broken fences and large amounts of rubbish/tipping was recorded at Hillcrest Estate Woodlands and clothes/sleeping materials at Sydenham Cottages Nature Reserve. Evergreen shrubs, concealing benches at the northern end of Lower Sydenham Station Allotments, was noted as being a likely place for anti-social behaviour.

Tipping and litter

- 3.39 For the urban nature of the borough, the level of tipping recorded was low and typically located in areas backed by residential properties, railway lines or woodland. Affected sites included Downham Woodland Walk, Eliot Bank Hedge and Tarleton Gardens, the southern end of Hillcrest Estate Woodland (noted as particularly bad), Hither Green Cemetery Lewisham Crematorium and Reigate Road Open Space (at the main entrance), Southend Pond (litter in the pond) and at Spring Brook at Downham Playing Fields (a shopping trolley in the stream).

Dog damage

- 3.40 Tree damage (bark gnawing) and dog fouling was identified as a problem primarily at the smaller SINC's in proximity to residential housing such as at Rainsborough Avenue Embankments, St Paul's Churchyard and Crossfield Street Open Space and at the proposed Northbrook Park. Habitat disturbance by dogs was also noted as an issue at one location, namely Mounts Pond on Blackheath, where dogs were able to enter the pond.

Invasive plants

- 3.41 The presence of invasive garden plants within ancient woodland is worth noting due to the negative effect these species can have on the establishment of native ground flora and the potentially limited foraging and sheltering use by native wildlife. Species such as snowberry, which has been identified as an invasive species of concern by the London Biodiversity Partnership, was abundant in the understorey at Downham

Woodland Walk (eastern parcel) and at Grove Park Nature Reserve. Sycamore is also becoming increasingly dominant in Hillcrest Estate ancient woodland.

3.42 Railway-line sites can be major sources for invasive species. Japanese knotweed was particularly abundant around the periphery of Bridgehouse Meadows and at Lewisham Rail Triangles (near the station). Equally the River Thames, River Ravensbourne, Pool River and River Quaggy provide corridors for the spread of invasive water species including Himalayan balsam and giant hogweed. Conservation work undertaken by Thames 21 appeared to be managing the spread of Himalayan balsam along the rivers. Blanket weed was also identified at Burnt Ash Pond Nature Reserve, with evidence to suggest that efforts were being made to manage it.

3.43 On the whole, the threat posed by invasive species was generally low given the nature of the habitats they affect and so, for the most part, can be tolerated. Species such as false acacia, tree of heaven, butterfly bush and Virginia creeper often provide habitat structure and nectar for common but declining pollinator species and reflect the interaction of urbanisation and ecology that are characteristic of the borough.

Development

3.44 A recent housing development by Berkeley Homes (Marina Wharf at Deptford) has removed part of the woodland at Rainsborough Avenue Embankments Site of Local Importance and has been re-landscaped with new trees, amenity grassland and children play features. Following a re-visit to this site later in 2015 and discussions with the grounds maintenance contractor, there is no active wildlife management for the part of the site located within the SINC. Newly created habitats are of very limited ecological value.

3.45 Part of St Paul's Churchyard and Crossfield Street Open Space in Deptford will be affected by the construction of the Thames Tunnel. This site could benefit from enhancements to enable use by the local community.

Erosion damage, habitat degradation

3.46 The majority of sites surveyed were well-managed and specific issues of habitat degradation or erosion were localised. A common problem in urban woodland is the impact from foot traffic causing soil compaction and reduced growth of woodland flora. However, this was only noted as a particular issue at Forster Memorial Park. This problem may be exacerbated by the popularity of the park, and there being only one

primary path through the woodland. Soil erosion from over-grazing by Canada geese was recorded as a localised problem at Southend Pond. This was due to a lack of foraging habitat adjacent to the pond.

Opportunities for Enhancement

3.47 In general, a very limited number of enhancements or improvements were recommended. Many sites had evidence of enhancements which were maturing with good management, habitat structure and diversity. The following recommendations provide additional opportunities relating to woodland, wetland and grassland habitats.

Woodland habitats

3.48 The common themes to enhance woodland, scrub and hedgerows were:

- **Grassland management:** A number of rare invertebrate species are confined to mature woodland habitat, or as relic populations on individual mature trees. To increase habitat availability to these species, (many of which are flightless), grassland between scattered mature trees should be left uncut to allow species movement between trees (creating meadow strips sometimes referred to as “beetle banks”). This approach would be suitable in Ladywell Fields, Beckenham Place Park and Mayow Park. Mature native trees are also likely to represent old field boundaries and have historical importance;
- **Invasive species:** Selectively thinning of sycamore and removal of non-native shrubs from ancient and native woodlands, particularly noted at Beckenham Place Park and Hillcrest Estate Woodlands;
- **Path management:** Creating informal paths to improve access through wooded parts, whilst reducing foot traffic temporarily in well-used areas (or close temporarily) to re-establish ground flora, by building dead-hedges with local volunteers. This would be particularly valuable at Hillcrest Estate Woodland and Forster Memorial Park;
- **Hedgerow management:** Gap-filling and laying maturing native hedges to provide better cover for nesting birds – noted at Pool River Linear Park, Chinbrook Allotments and Community Orchard; the proposed Blythe Hill Park and Durham Hill; and
- **New wildlife features:** Installing/ creating a bug hotel within the woodland at Ladywell Fields.

Wetland habitats

3.49 The common themes to enhance wetland habitats were:

- **De-culverting:** the River Quaggy at Sydenham Cottages Nature Reserve;
- **Willow / fen carr:** Restoring water-levels within the willow carr (fen carr) at Beckenham Place Park or creating new areas adjacent to the River Ravensbourne;
- **Pond creation:** Creating new ponds or swales to diversify grassland habitat, is suggested for Mountisfield Park, Mayow Park, Hilly Fields, Durham Hill and the proposed Blythe Hill Fields; the latter two already having wet patches (due to possible spring lines);
- **Pond management:** Enlarging and lining ponds to provide all year-round habitat for wetland species, noted at Albion Millennium Green and Brookmill Nature Reserve;
- **Pond Management:** Planting of marginal vegetation and scrub to provide habitat for amphibians and dragonflies and restricting access for dogs could be potentially implemented at a number of sites. Potentially suitable places could include the Hare and Billet Pond on Blackheath, the eastern end of Southend Pond and along the River Quaggy within Manor House Gardens; and
- **Pond Management:** Establishing an area of reed swamp to provide cover for amphibians and invertebrates. This was identified as a potentially suitable at Sydenham Wells Park.

Grassland habitats

3.50 The common themes to enhance grassland habitats were:

- **Dry grassland:** Creating bare-ground scrapes to provide small-scale habitat diversity (of value to ground dwelling invertebrates) within large expanses of meadow or amenity grassland or where acid/ dry grassland is present. This could be suitable at Hither Green Cemetery, Lewisham Crematorium and Reigate Road Open Space, Sydenham Wells Park, Brockley and Ladywell Cemeteries, Beckenham Place Park; Bromley Hill Park, Blackheath, Chinbrook Meadows (southern section), Horniman Gardens, Horniman Railway Trail and Horniman Triangle, Lewisham Park and Mayow Park;
- **Dry grassland:** Retaining areas of dry grassland within larger areas of amenity grassland (typically characterised by the many heads of cats-ear) by avoiding the use of fertiliser, pesticides and perennial rye-grass re-seeding;

- **Dry grassland:** Ensuring species-rich/ dry grassland retains low fertility by removing arisings after mowing. This is particularly important at Durham Hill, Brockley and Ladywell Cemeteries, and the golf course at Beckenham Pace Park;
- **Amenity grassland:** Relaxing the mowing regime in areas of amenity grassland, particularly around scattered trees, hedgerows and boundaries to provide a natural edge transition between different habitats. This would be beneficial at Grove Park Cemetery (along the eastern boundary) and Bromley Hill Cemetery (along all boundaries);
- **Amenity grassland:** Reducing the mowing frequency of amenity grassland to provide complementary habitat (gradual habitat transition) adjacent to existing habitat corridors. This could be suitable at St. Mary's Churchyard which abuts the River Ravensbourne along its western boundary and which supports colourful (nectar and pollen rich) grassland species including bird's-foot trefoil, ladies' bedstraw, field wood rush and mouse-ear hawkweed;
- **Amenity grassland:** Linking isolated mature trees with grass strips about 2 metres wide, sometimes known as beetle strips, to provide cover for invertebrates and hedgehogs. This would be particularly valuable at Ladywell Fields, Beckenham Place Park and Mayow Park;
- **Meadow creation:** Creating meadows using annual seed-mixes which are often highly pictorial and good for invertebrates. The meadow can have paths mown through them and places to sit. This management option could be particularly successful at parks with existing large expanses of amenity grassland, such as at Deptford Park, Forster Memorial Park, Mountsfield Park and Hilly Fields;
- **Parkland Trees:** Allowing grassland to grow beneath mature trees can provide habitat to flightless insects such as beetles, some of which only live on mature native oak trees. This would be suitable at Mayow Park, Mountsfield Park, Sydenham Wells Park, Hilly Fields, Blythe Hill Fields and eastern end of Downham Woodland Walk.
- **Scrub management:** Managing bramble scrub where it is encroaching onto herb-rich grassland at Hither Green Nature Reserve and Honor Oak Covered Reservoir.

Other

3.51 Other recommendations include:

- **Shrub planting:** Supplementing existing planted shrubberies with species of known value to wildlife (where opportunities arise), with the aim of providing nectar throughout the season and cover for nesting birds. For example. There are number fruiting shrubs (e.g. raspberry) or native attractive shrubs (e.g. hazel) that have edible fruit/nuts of value to wildlife and local people. Planting of this kind would be particularly valuable at Whitefoot Recreation Ground, St Pauls Churchyard and Crossfield Open Space;
- **Access:** Improving pedestrian access along the River Thames at Pepys Park Nature Area;
- **Education:** Providing an ecological interpretation in SINC's such as plant labels, presentation boards or smart phone links, particularly valuable at local sites in areas of limited access to nature;
- **Long-term management:** Preparing management plans for sites where nature conservation interest is declining. This is particularly important for Grove Park Cemetery, Bromley Hill Cemetery;
- **Sustainable drainage:** Utilising surface water run-off from adjacent roads and roofs by channelling through Sustainable Urban Drainage Systems (SuDs) features and creating wildlife-friendly ponds, rain gardens and ditches;
- **Large-scale habitat creation:** Potential to introduce grazing animals into grassland areas of Beckenham Place Park to improve habitat structure within the large expanse of amenity grassland along the eastern boundary of park. More information can be found at <http://www.rewildingbritain.org.uk/>.
- **Small-scale habitat creation:** Integrating habitats into utilitarian objects such as bin shelters, street signs and roofs, possibly suitable at the entrance to Sydenham Cottages Nature Reserve (communal bins are unsightly at site entrance), Rainsborough Avenue Embankments, Ladywell Fields (by the café) and at Pepys Park Nature Reserve (see photograph below);

Picture courtesy of
Green Roof Shelters
www.greenroofshelters.co.uk



- **Maintenance contracts:** Modifying ground maintenance contracts to deliver wildlife and community benefits, particularly valuable around Deptford. Examples such as the work undertaken by the Grass Roof Company <http://www.grassroofcompany.co.uk/urban-maintenance.htm#> with specific research undertaken by Drummond Richardson on (fuller information available on request from the above company);

Green roof data

3.52 176 green roof records were recording totalling 4.8ha within the built environment (outside of SINC's), Appendix 6. Many were associated with new development and in proximity to existing SINC's and included:

- 10 records between Cornmill Gardens and Lewisham Railway Triangles;
- 12 records adjacent to Downham Woodland Walk;
- 8 records along the northern section of the River Ravensbourne and Brookmill Park;
- 8 records along the northern boundary of Senegal railway banks;
- 7 records along the north-eastern boundary of Folkestone Gardens;
- 8 records along the northwest boundary of Loat's Pit; and
- 2 records between Brockley and Ladywell Cemeteries and Hilly Fields.

3.53 Eight additional green roofs were also mapped as part of the SINC survey located in or adjacent to sites. A full list is provided in Appendix 6.

3.54 Green roofs are likely to provide complementary habitat to adjacent SINC's, their proximity and clustered pattern helping to provide habitat stepping stones for

invertebrate species such as solitary bees and bumblebees (e.g. between Cornmill Gardens and Lewisham Railway Triangle and Brockley and Ladywell Cemeteries and Hill Fields).

- 3.55 Obligating ecological and landscape/building design consultants to submit their data to GiGL would ensure biological data could be made available for the public good – e.g. climate change adaptation. Example wording has been provided in Section 4, paragraph 4.18 below.

4 Recommendations

REVIEW OF EXISTING AND PROPOSED SINCS

- 4.1 As a result of the field survey analysis, species records, and assessment of habitat change, recommendations have been made to update the SINC series within the London Borough of Lewisham, providing a robust framework for emerging policies in the New Integrated Plan. The following section tabulates the proposed changes to site designations, boundaries and names along with brief descriptions in accordance with the GLA SINC selection criteria. This excludes the automatic merge of Borough Grade I /II to that of Borough Grade Importance. For full description and justification, refer to individual SINC citations in Appendix 4.

SINCS that exceed their current status

- 4.2 Bridgehouse Meadows, Creekside Education Centre, Ladywell Fields and River Quaggy and Manor Park and have been assessed as exceeding the level at which they were designated and have been proposed as a Site of Borough Importance. Table 4 provides descriptions for each of the four upgraded sites.

Table 4: Description of sites, providing justification for their upgrade. Red text provides details relevant to alleviating Areas of Deficiency and boundary changes.

Site Name	Justification
Bridgehouse Meadows	<p>Bridgehouse Meadows contains a range of vegetation types including amenity grassland, scrub, woodland, mature trees, tall ruderal vegetation and herb-rich grassland. Apart of the amenity grassland most of vegetation is managed for wildlife. The southern part of the site supports one of the few remaining reptile populations in this part of the borough. The habitats are likely to be of value to a range of widespread but declining species of bird and invertebrate.</p> <p>The site is located within an area of deficiency.</p>
Creekside Education Centre	<p>Creekside Education Centre is one of the few locations along the entire southern bank of the River Thames (in the centre of London) that has a natural bank profile, supporting tidal wet-marginal vegetation (a rare habitat in London).The centre also provides safe access for organised groups to experience Deptford Creek at low tide. Surrounding the building, the grounds support species rich wasteland with small patches of tall ruderal and wet marginal vegetation. Over 200 species of plants have been recorded on the site, and the invertebrate population is likely to be equally diverse. A bio-diverse green-roof supports spring-flowering species. A new wildlife pond has been created, with good marginal vegetation and supports common newts. The centre organises regular courses and talks and is a hub for community and environmental education.</p>

Site Name	Justification
Ladywell Fields	<p>Ladywell Fields is a large site located along the River Ravensbourne floodplain in the centre of Lewisham, comprising areas of native and non-native woodland, amenity grassland and smaller areas of herb-rich grassland. Recent enhancement works to the river have created a meandering tributary that runs through the centre of the park, with wet marginal vegetation, wildflower banks and a gravel bottom. The stream and associated habitats are of significant ecological value, providing a dynamic (naturally regulating) element to the park and a range of habitats of value to widespread but declining aquatic and terrestrial invertebrates and birds such as the Lewisham flagship species kingfisher. The main river channel has also been enhanced with rocky groyne increasing water oxygenation and flow diversity – conditions better suited for fish and invertebrate life. The site also forms an important habitat corridor through Lewisham, connecting with Pool River Linear Park to the south and ongoing enhancements in Lewisham town centre to the north. The park has a number of large, mature native and non-native trees and a recently planted community orchard. Other habitats include scrub, tall ruderal and roughland. The enhancements to the park have increased use by local people and is a regular route for cyclists.</p> <p>The site is located in an Area of Deficiency</p>
River Quaggy and Manor Park	<p>A small to moderate sized site, the River Quaggy runs through Manor Park which comprised mature non-native woodland, diverse wet marginal vegetation, amenity and species-rich grassland and planted areas. Good enhancements to the river have been made including the creation of an area of marginal vegetation and scrub in the southern part of the site, supporting a wide range of uncommon wetland species such as hemp agrimony, purple loosestrife, hard rush, gypsywort and wood small reed. Non-native woodland provides good cover for birds along the river corridor including the Lewisham flagship species, kingfisher. A southern entrance (including a bridge across the river) has increased natural surveillance as people regularly use the park to avoid the main road and walk between Hither Green and Lewisham town centres. Two herbaceous gardens offer excellent foraging habitat for invertebrates with a good selection and abundance of plants of known value for wildlife, such as sage, rosemary and meadow rue. Grassland areas are managed well with small areas left-uncut and supporting herb-rich grassland including abundant black knapweed, wild carrot, lady's bedstraw and occasional field scabious and bird's foot trefoil. A new native hedgerow has been planted along the eastern boundary. Thames 21 and Lewisham biodiversity volunteers manage the river habitats on a regular basis including removing invasive species. Easy access to the water's edge is possible at two locations providing safe interaction with running water – a valuable asset for local children and well used. A local arts café provides children facilities, information and refreshments.</p> <p>The site is located close to an Area of Deficiency.</p> <p>Boundaries extended along the northern boundary and reduced slightly along southern boundary.</p>

Proposed SINC

- 4.3 Of the ten candidate sites, six have been proposed as Sites of Local Importance. A brief description of their value to nature conservation has been provided for each site in Table 5 below. This includes sites not proposed as SINC. New citations have been written for each (Appendix 4).

Table 5: Brief descriptions for proposed Sites of Local Importance (SLINC). Red text provides area of site.

Name (status)	Justification
<p>Blythe Hill Fields (Proposed SLINC)</p>	<p>A large park located on a hill in Honor Oak with a good view of the London skyline. A large central area of grassland is managed as a meadow, providing habitat and a good pollinator resource for insects. Species including abundant common knapweed, bird's-foot trefoil, and frequent lady's bedstraw. A small area dominated by redshank, suggests a spring-line. Another area of semi-improved grassland supported the notable species corky-fruited water dropwort, an uncommon plant in Lewisham. A healthy, semi-mature, mixed species hedgerow, a Habitat of Principal Importance, ran along the southern and part of the northern boundary of the site. Species included crab apple, hawthorn, blackthorn, field maple and hazel. The dense habitat and variety of native species is likely to be of high value to breeding and foraging birds. The park is well used by local school children and local residents. Recent enhancements include provision of outdoor gym equipment, a kids play ground and new tree planting.</p> <p>The proposed site is 7.07ha in size.</p> <p>This site is located within an area of deficiency.</p>
<p>Cornmill Gardens (Proposed SLINC)</p>	<p>Cornmill Gardens is a small park located adjacent to the River Ravensbourne in Lewisham town centre. The proposed SINC will include a section of the River Ravensbourne, the east and western banks and an adjacent garden to the east. This does not include a newly created open space to the west of the river, which is of limited ecological value. The river has been de-culverted providing diverse banks of wetland vegetation. Floodplain storage has been provided in the open space to the west. New tree and herbaceous species have been planted. The river supports diverse marginal planting including abundant wood small reed, sweet flag, pendulous sedge, grey willow and purple loosestrife. The upstream section supports a small patch of common reed, fools water-cress. And dense scrub of value to nesting and foraging birds including a large number of house sparrow. In-channel enhancements have also been created to improve habitat for fish and aquatic invertebrates. The site is well used by local residents.</p> <p>The original Cornmill Garden (the open space to the west) is to be excluded from the proposed SINC. Instead the area to the east which includes the restored banks of the River Ravensbourne and eastern garden have been included.</p> <p>The proposed site is 0.61ha in size.</p> <p>This site is located close to an Area of Deficiency.</p>

Name (status)	Justification
<p>Lewisham Park (proposed SLINC)</p>	<p>A medium sized park surrounding by residential properties comprising a good number (densely scattered) of large, mature, native, non-native and ornamental trees with amenity grassland below. The density and maturity of vegetation is likely to provide good foraging and breeding habitat for common but declining bird species. Mature trees also provide roosting and foraging value for bats. A small area of non-native woodland occurred on the western boundary along with meadow-managed, semi-improved grassland, a young species-rich hedgerow and scattered scrub, providing a gradual habitat transition of value to invertebrates. Remaining boundaries are bordered by densely planted, mature non-native shrubs providing good cover for breeding birds. Ground cover is dominated by amenity grassland, but some areas are less enriched, with cats-ear occurring frequently within the mown sward.</p> <p>The proposed site is 4.5ha in size.</p> <p>This site is located within an Area of Deficiency.</p>
<p>Southend Park (proposed)</p>	<p>A medium-sized park located in a residential area in Lower Sydenham. The River Pool runs underneath the park in a culvert, the old river course possibly demarcated by mature trees and slope in the centre of this site. The park contains a large number of ornamental and native mature trees including some large horse chestnut and ash trees which provide value to foraging and roosting bats. Mature, non-native woodland covers the steeper slopes along the south-east boundary, whilst dense boundary vegetation comprising a mix of native and non-native scrub borders the west and northern boundaries. These habitats provide shelter for nesting and foraging birds and invertebrates. Grassland is typically mown; however, a small section is cut less frequently providing structural variety for invertebrates. Potential to de-culvert a section of the River Pool within the park could provide additional wildlife habitat and natural play.</p> <p>The proposed site is 2.7ha in size.</p>
<p>Deptford Park (not proposed)</p>	<p>Deptford Park is located in the northern tip of Lewisham in a densely urban, industrial part of the borough and within an Area of Deficiency. A large park, bordered by a mature corridor of London planes, ash and horse-chestnut provides potential roosting and foraging habitat for wildlife. However, the majority of the park is amenity grassland of limited wildlife value. Mowing is regular and intensive. The site is well used by schools and local people for sports activities including running and school sports days. A recent addition is a creative play area for children, with small areas of native planting, a sand pit and climbing logs. A small garden (planted with shrubs) along the northern boundary has potential for enhancement but currently is not well used, and sparsely planted.</p> <p>This site has not been proposed primarily due to its limited habitat value and intensive amenity use.</p> <p>This site is 6.76ha in size.</p> <p>This site is located in an Area of Deficiency.</p>

Name (status)	Justification
<p>Longford Nursery Allotments (not proposed)</p>	<p>A small allotment site located in the south west part of the borough. It contains one of the best allotment ponds for wildlife in the region, being created where the ground was too wet to cultivate. A wide range of wetland species are present including soft and hard rush, flag iris, marsh marigold, common reed and club rush, an uncommon species in Lewisham. The site also contains a smaller water-body, supposed to be a source of a spring. Anecdotal evidence suggests that a stream used to flow through the site (perhaps linking up with the stream, which runs through Sydenham Wells Park, due west of this site). The site is managed for wildlife with dead mature horse chestnut tree trunks left standing, a small orchard, a recently created wildflower meadow and a native hazel hedgerow. The pond supports a good population of common frogs and toads, and common newts have also been recorded. A good population of song thrush and house sparrows forage on the site. The site is surrounded by residential properties. Dense scrub and mature fruit trees within adjacent derelict property (to the east) provides additional value.</p> <p>The site has not been proposed primarily due to its limited size and limited access for wider public.</p> <p>This site is 0.52ha in size.</p>
<p>Luxmore Gardens (not proposed)</p>	<p>A small site dominated by amenity grassland, scattered semi-mature trees, and planted shrubbery. Habitats and species present provide limited value to common and widespread birds and invertebrates.</p> <p>This site has not been proposed primarily due to its limited habitat value and size.</p> <p>This site is 0.42ha in size.</p> <p>This site is located within an Area of Deficiency.</p>
<p>Northbrook Park (proposed)</p>	<p>A medium sized park, which caters for the local residents with a number of areas with clearly defined functions/uses. These comprised a forest school, a wildlife area, a dog exercise area and a children's play area, along with a large central amenity grassland area with a circular path used regularly by joggers. The forest school, which occupies a large part of the site, supports a number of habitats including a small wildlife pond, semi-improved grassland, managed as a meadow, native hedgerows, native scrub and recently planted trees. The specific wildlife area did not appear to be managed and was dominated by nettle and bramble with scattered scrub. A small wildflower-rich meadow was located within the play area and consisted of a rich mix of recently seeded species including lady's bedstraw, greater knapweed and wild carrot. The variety and size of habitats are of particular value to common and declining species of birds and invertebrates. The sites location, contiguous with Hither Green Sidings and rail habitat corridor may increase the potential for hedgehogs and reptiles using the site.</p> <p>This site is 3.8ha in size.</p> <p>This site is located close to an Area of Deficiency.</p>

Name (status)	Justification
<p>Friendly Garden and Deptford railway Meadow (not proposed)</p>	<p>A cluster of two parks and a meadow located in the north west of the borough within an Area of Deficiency and contiguous with the railway line that runs between New Cross (East London Line) and St Johns. One of the least vegetated sections of the rail corridor. The meadow had been established above the railway tunnel and comprised semi-improved grassland with a number of herbs including common bird's-foot trefoil, meadow buttercup, common mallow and meadow cranesbill. The site was fenced with an area of tall ruderal, scattered scrub along its eastern boundary.</p> <p>Friendly Garden is dominated by amenity grassland; semi-mature scattered trees and a small play area containing some tree stumps (play features). A small native hedgerow was a notable feature for some fine coppiced hazel (a relic of a former hedgerow possible). The site lacked maturity and active management for nature conservation. It was being well used by local residents.</p> <p>Not proposed due to its limited area of wildlife value across the three areas.</p> <p>The combined area of the three parks is 1.55ha.</p> <p>This site is located in an Area of Deficiency.</p>
<p>Sedgehill School Boundaries (boundaries only proposed)</p>	<p>Sedgehill School occupied a large site in the south of the borough next to Beckenham Place Park (separated by Beckenham Hill Road). Habitats comprised mature native woodland, scrub and mature scattered trees, recently created species-rich wildflower grassland and areas of amenity grassland (species included tall fescue, salad burnet, common knapweed and common sorrel). The woodland comprised two different areas, one being much older, supporting mature oak trees and a sparse understorey of native shrubs (hazel and hawthorn) and semi-improved grassland ground flora. The other woodland area comprised young densely planted oaks. A number of mature scattered oak trees were also present and were of considerable size and maturity. Habitats are likely to provide good foraging habitat for a wide range of species. Habitats also form good linkages between Beckenham Place Park to the south and Sedgehill Allotments to the west.</p> <p>This site is 1.06ha in size.</p>

SINCs of priority for conservation

- 4.4 Five SINCs have been assessed as meeting their current level of designation, but are in decline. These are Grove Park Cemetery; Hillcrest Estate Woodland; Hither Green Cemetery, Lewisham Crematorium and Reigate Road Open Space; Mayow Park and St Paul's Churchyard and Crossfield Street Open Space. Table 6 provides the current issues and brief site-specific recommendations.

Table 6: Sites of priority for conservation.

Site	Current Issue	Solution / opportunity
Grove Park Cemetery	Graves dominated the site and it is mown regularly to a short sward. Non-native woodland is used as garden waste area. Boundaries to adjacent ancient woodland (off site) are mown and abrupt.	Site would benefit from a management plan to identify where areas could be enhanced and where historical or current use may restrict a change in management practices. Meadows could be created, or woodland allowed to regenerate in some areas. This would provide a softer edge to adjacent habitats in Bromley, which includes ancient woodland.
Hillcrest Estate Woodland	Sycamore regrowth is competing with native species. Fly-tipping and broken fences suggest site is not managed /cared for. Access and use by local residents potentially limited for these reasons.	Selective removal and treatment of sycamore regrowth. Improve informal access and use by local residents (including natural surveillance where possible). A survey is recommended to understand the value and extent of back garden land that is located within the SINC.
Hither Green Cemetery, Lewisham Crematorium and Reigate Road Open Space	Graves dominated the site. Trees are predominantly non-native and evergreen. Few areas of grass remain long throughout the year, limited value of site to reptiles, hedgehogs and invertebrates.	This site is very large and would benefit from a management plan to identify where areas could be enhanced and where historical or current use may restrict a change in management practises. Meadows could be created and woodland allowed to regenerate. Access could be improved between the three areas to allow use by local people.
Mayow Park	Dominated by amenity grassland. Mature trees are of high value to wildlife.	To increase habitat availability to flightless invertebrate, grassland between scattered mature trees should be left uncut to allow species movement between trees (creating meadow strips sometimes referred to as "beetle banks"). Mature native trees are also likely to represent old field boundaries and have historical importance.
St Paul's Churchyard and Crossfield Street Open Space	Limited habitat value of Crossfield Street Open Space. Limited value of planting within churchyard.	Planting of climbers along churchyard walls would provide habitat and a nectar source for invertebrates.

SINCs with potential for additional enhancement

4.5 Site-specific habitat enhancements have been identified for ten sites. Table 7 below lists these sites and provides some brief details.

Table 7: Site- specific habitat enhancements

Site	Key Features	Enhancement Opportunity
Bridgehouse Meadows	Reptile population, Part of habitat corridor	This site would benefit from being less intensively managed, creating wide bands of vegetation along the boundaries of the site. This would provide a large area for the resident reptile population which is currently restricted to the southern end of the site. Creation of hibernacula along the eastern boundary would also improve overwintering habitat for this species.
Bromley Hill Cemetery	Acid / dry grassland	A large site that would benefit from a management plan to identify areas most suited for management for wildlife, in particular areas of acid or dry grassland. Provide an information board illustrating the ecological value of the site. Plant a native hedgerow or scrub along the northern boundary,
Hilly Fields	Steep slopes	Grassland is predominantly improved and managed for amenity and sports use. Potential to create planted swales along the bottom of slopes (adjacent to roads) to increase species diversity. Reduce mowing underneath mature trees less likely to be used by people (at the peripheral of the site along the south and western boundaries).
Pepys Park Nature Area	Species-rich wasteland, Proximity to the River Thames	Improve connection between this site and the River Thames site of Metropolitan Importance and where possible provide safe access (and information) to the foreshore. Additional planting within children's play area could provide natural play and value to birds and invertebrates.
Sayes Court Park	Part of historic site, famous horticulturalist John Evelyn and birthplace of The National Trust	Rejuvenate garden with respect to historical significance and needs of local community. There is substantial local interest to expand garden into part of adjacent proposed development. Opportunity to link this site with Pepys Park to the north and the River Thames, and Twinkle Park to the east – creating a walking /habitat corridor as well as enhanced spaces for people.
Sydenham Cottages Nature Reserve	River Quaggy	The site's eastern boundary follows a canalised section of the River Quaggy, which currently is not included in the site boundary. It would be highly beneficial if the watercourse could be part decanalised to provide a natural bank profile to the site, and bring part of the playing field land into flood-plain habitat – a rare habitat in London.

Site	Key Features	Enhancement Opportunity
Sydenham Wells Park	Spring and water-bodies, dry-grassland	To improve water quality, consider installing a water pump to improve water aeration and plant aquatic plants. Dry grassland within larger amenity grassland areas should be maintained by removing arising's after grass cutting; use appropriate dry-grassland seed mix (not amenity seed-mix) if they become damaged.
Southend Pond	River Ravensbourne	Re-development of the retail park in the future should enable restoration of the River Ravensbourne and Southend pond. Currently bounded by hard-standing the pond would benefit from being reduced in size and planted with more trees, scrub and wetland species, providing better cover for birds and amphibians and reducing the noise and pollution from the busy A21.
Southend Park	River Pool	Potential to de-culvert the River Pool and create a more-naturalised river section within this new SINC. The river south of the Park (within Bromley) appears in good ecological condition: with gravel substrate, good flow and submerged species including starwort spp, (Its channel is approximately 1m wide, 30cm deep) suggesting that the river downstream is likely to provide opportunities for safe play. This also provides an opportunity to extend the Waterlink Way, via this park, via a new entrance off the A2218.
St Pauls Churchyard and Crossfield Street Open Space	Open-space close to Deptford high street.	A large and underused space, just off Deptford High Street. Potential to improve public access, use by pedestrianizing Coffey Street, improving access and space for tree planting. Thames Tidal Tunnel construction works will impact on Crossfield Street Open Space. New planting post-construction could include raised allotment beds, and / or community orchard.
Friendly Garden and Deptford Railway Meadow	A cluster of sites within close proximity and within an area deprived of access to nature.	Friendly garden could be enhanced to complement the meadow. For example planting a native hedgerow or under-planted scattered trees to create a nature trail.

Changes to SINC / proposed SINC boundaries

- 4.6 28 sites require boundary changes. This is due to enhancements increasing the wildlife value of adjacent areas, (e.g. Cornmill Gardens), or to improve boundary accuracy. Table 8 provides fuller details of the proposed changes. Where there are boundary changes that could increase the number of freehold owners, increase or decrease total area of site, or alleviate Areas of Deficiency this information has been highlighted in red within the table and mapped in Appendix 3.

Table 8: The table lists SINC and proposed SINC with boundary changes in red (in hectares and percentage) along with the existing site area. The third column describes the reason and location for the boundary changes, followed by likely ownership and whether the site is located within an Area of Deficiency. The fourth column provides the map number showing the proposed changes (Appendix 3).

SINC	Area changes	Description of proposed changes	Map No
Beckenham Place Park	Existing: 96.26ha Proposed 98.7ha Increase of 2.5%	To include a section of the River Ravensbourne, and a large field comprising semi-improved grassland, mature treed boundaries and scrub in the south west east corner of the site. A total area is 2.44ha. Likely to be in similar ownership.	1
Bridgehouse Meadows	Existing: 2.96ha Proposed: 4.56ha Increase of 54%	Two areas. Firstly to include the herb-rich grassland and reptile mitigation area to the south of the SINC. Second area is located along the north-eastern corner of the site which supports scrub and non-native woodland providing nesting and foraging habitat for birds. A total area of 1.60ha. Likely to be in similar ownership.	2
Bromley Hill Cemetery	Existing: 2.64ha Proposed: 2.88ha Increase of 9%	To include an area of dense scrub in the north east part of the site. This was not accessible/ visible during the field survey but was highlighted from aerial photographs. A total area of 0.02ha. Likely to be in private ownership.	3
Cornmill Gardens (Proposed)	Existing: 0.53ha Proposed: 0.61ha (adjacent)	To include three new areas but exclude the original Cornmill Garden open space on the western side of the River Ravensbourne. First, to include part of the River Ravensbourne to the east of the gardens, which has undergone recent enhancement works. To include part of the river to the south, which supports marginal and scrub habitat. To include part of the gardens on the eastern bank of the river, which provides river access, marginal and scrub habitat. A total area of 0.61ha. All areas are likely to be owned by the borough.	36
Downland Woodland Walk	Existing: 3.88ha Proposed: 3.9ha Increase of 0.5%	To include a finger of native woodland at the southern end of the SINC. A total area of 0.02ha. Likely to be in private ownership.	4
Durham Hill (formerly Durham Fields)	Existing: 12.75ha Proposed: 12.56ha Decrease of 1.5%	To include and exclude areas along the northern boundary, where a new building has been built. To include an area of shrub and grassland that extends into the car-parking area. To exclude the hard-surface courts and part of the new building which extend into the grassland area. The area to be included is 0.15ha and area to exclude is 0.34ha. Likely to be in similar ownership	5

SINC	Area changes	Description of proposed changes	Map No
Eliot Bank Hedge and Tarleton Gardens	Existing: 0.41 Proposed: 0.60ha Increase of 46%	Two areas: To include native and introduced scrub along the footpath in the north east, which is merged with vegetation within Tarleton Gardens. To widen Eliot Bank Hedge to include woodland habitat along the eastern boundary of private gardens which appears to be more akin to woodland habitat than garden land and perhaps is an exception to the rule of excluding garden land (on architecture/design reasons). A total area of 0.19ha. Likely to be in similar ownership.	6
Forster Memorial Park	Existing:16.46ha Proposed: 16.63ha Increase of 1%	To include two areas. Firstly the access path on the western boundary into the park, which comprises amenity grassland and scattered scrub. Secondly, the south-east corner of the park comprising trees, scrub and planted shrubbery of value to breeding birds. A total area of 0.17ha Likely to be similar ownership.	7, 8
Gilmore Triangle	Existing: 0.74ha Proposed: 0.78ha Increase of 5%	To include a triangle of land to the north, which supports non-native woodland. A total area of 0.04ha. Likely to be owned by the borough.	9
Hither Green Cemetery, Lewisham Crematorium and Reigate Road Open	Existing: 23.25ha Proposed: 23.4ha Increase of 0.6%	To include scrub along the railway line and a reptile translocation area as a result of an adjacent housing development. A total area of 0.15ha. Likely to be private ownership.	10
Hornmian Gardens, Horniman Nature Trail and Horniman Triangle	Existing: 9.49ha Proposed: 9.67ha Increase of 2%	To include the biodiverse green roof and herbaceous planting next to the museum, of value to invertebrates. A total area of 0.18ha. Likely in similar ownership.	12
Iona Close Orchard	Existing: 0.33ha Proposed: 0.3ha Decrease of 9%	To exclude the area of garden on the western boundary. A total area of 0.03ha. Likely to be in private ownership.	34
Lewisham Park (Proposed)	Existing: 4.5ha Proposed: 4.17ha	To exclude a strip of land along the western boundary, outside the park fence and comprising small areas of amenity grassland, scattered trees and hard-standing. A total area of 0.33ha. Likely to be similar ownership.	44
Lewisham to Blackheath railsides	Existing: 2.61ha Proposed: 3.3ha Increase of 27%	To include adjacent non-native woodland along the railway line embankments. Likely to be in similar ownership. To include a wooded nature garden in adjacent school grounds and contiguous with rail habitat. A total area of 0.70ha. Likely to be owned by the borough.	14

SINC	Area changes	Description of proposed changes	Map No
Lower Sydenham Station Allotments	Existing: 0.47ha Proposed: 0.52ha Increase of 10%	To include an area that forms part of the walking route between this SINC and Pool River Linear Park SINC to the north. It comprises planted shrubbery of value to breeding birds. The area is also thought to be designated as a London Square. A total area of 0.05ha. Likely to be in similar ownership.	15
Mayow Park	Existing: 6.98ha Proposed: 7.2ha Increase of 3%	To include the café and adjacent community garden of value to foraging birds and invertebrates. A total area of 0.21ha. Likely to be in similar ownership.	16
New Cross & New Cross Gate Railsides	Existing: 9.76ha Proposed: 10.54ha Increase of 7.5%	To include an area of railway sidings, which supports ephemeral and scrub vegetation. A total area of 0.73ha. Likely to be in similar ownership.	17
Nunhead Cutting	Existing: 5.85ha Proposed: 6ha Increase of 2.4%	To include Friendsbury Gardens on Pincott Place, which is contiguous with railway habitat. The publically accessible garden contains a wildlife pond, native scrub and herbaceous planting. A total area of 0.14ha. Likely to be owned by the borough.	33
Pepys Park Nature Area	Existing: 0.4ha Proposed: 0.68ha Increase of 70%	To include areas of scrub, mature trees and species rich ephemeral vegetation in the adjacent park to the north. A total area of 0.28ha. Likely to be in similar ownership.	18
Pool River Linear Park	Existing: 16.7ha Proposed: 18.11ha Increase of 8.4%	To include a finger of land which extends along the northern boundary of the new retail development at Bell Green. This area comprises a mix of habitats including ruderal, tall herb, scrub and bare ground and is likely to be of value to invertebrates, breeding and foraging birds and potentially reptiles and hedgehogs if local populations are present. Likely to be private ownership. To include an area of disused allotments on the eastern bank of the river. The area supports dense scrub and scattered trees and provides contiguous habitat with native woodland next to the River Pool. Likely to be in private ownership. Together this two areas cover a total of 1.63ha. To exclude two areas comprising bare-artificial habitat along Fordmill road on either side of the railway line. A total area of 0.22ha. Likely to be private ownership.	19, 20, 35
Queenswood Nature Reserve	Existing: 0.29ha Proposed: 0.31ha Increase of 7%	To include the footpath from the road which comprised non-native woodland. A total area of 0.02ha. Likely to be in similar ownership.	21

SINC	Area changes	Description of proposed changes	Map No
Rainsborough Avenue Embankments	Existing: 1.24ha Proposed: 1.8ha Decrease of 47%	To exclude a portion of the SINC within new development. Although this area has been retained as open space, there is no active management for biodiversity and habitats are of very limited ecological value. A total of 0.58ha. Likely to be in private ownership.	22
River Quaggy at Manor Park.	Existing: 1.37ha Proposed: 1.46ha Increase of 9%	Firstly to exclude garden land at the southern end of the SINC. A total area of 0.03ha. Likely to be in private ownership. Secondly, to include herbaceous planting along the north-eastern boundary; and include small areas along the northern boundary. A total area of 0.12ha. Likely to be in similar ownership.	23, 24, 25
Sedgehill School Boundaries (Proposed)	Existing: 11ha Proposed: 1.06ha	To include mature vegetation around the school northern boundary. The remainder of the school grounds are not included. Boundary vegetation comprised mature native woodland, scattered mature trees, dense scrub and herb rich grassland. A total area of 1.06ha. Likely to be owned by the borough.	26
Southend Park (Proposed)	Existing: 2.7ha Proposed: 2.8ha	To include an area of grassland adjacent to the pond along the north-west boundary. Used for grazing by Canada geese. A total area 0.12ha. Likely to be in similar ownership.	27
Spring Brook at Downham playing fields	Existing: 0.83ha Proposed: 2.1ha Increase of 156%	To include enhancement works and a grass buffer along the entire length of the brook. A total area of 1.3ha. Likely to be in similar ownership.	28, 29
St. Paul's Churchyard and Crossfield Open Space	Existing: 1.29ha Proposed: 1.76ha Increase of 36%	To include an area to the north which comprises the remaining area of Churchyard and boundary wall, amenity and semi-improved grassland, scattered trees and planted shrubbery. A total area of 0.47ha. Likely to be similar ownership.	34
St Johns to Lewisham	Existing: 4.67ha Proposed: 4.7ha Increase of 0.6%	To include an area of mature non-native woodland next to the station. A total area of 0.03ha. Likely to be in similar ownership.	30
Sydenham Cottages Nature Reserve	Existing: 0.57ha Proposed: 0.72ha Increase of 26%	Two areas are proposed. Firstly to include a native hedgerow along Alice Thompson Close. A recently laid hedgerow lines this street bordered by tall native herbs and trees. Likely to be in similar ownership. Secondly to include back garden land bordering the River Quaggy to the north. A total area of 0.15ha. Likely to be in private ownership.	31

4.7 A more detailed boundary assessment survey is recommended for Hillcrest Estate Woodlands to identify those areas of private or social housing land that should or should not be retained as part of the SINC site boundary.

Changes to SINC site names

- 4.8 It is proposed to rename seven existing SINC sites to better reflect the habitats present. The following changes and fuller details are provided in Table 9 below.

Table 9: Proposed changes to site names.

Site Name	Proposed Name	Details
Beckenham Place Park	Beckenham Place Park (LNR)	To include the statutory designated site within name.
Bridgehouse Meadows	Bridgehouse Meadows Railsides	To reflect the site's importance as part of the rail habitat corridor.
<u>Brookmill Nature Reserve</u>	<u>Brookmill Nature Reserve (LNR)</u>	To include the statutory designated site within name.
Burnt Ash Pond Nature Reserve	Burnt Ash Pond Nature Reserve (LNR)	To include the statutory designated site within name.
Creekside Education Centre	River Thames at Creekside Education Centre	To reflect the sites connection with the River Thames via Deptford Creek.
Cornmill Gardens	River Ravensbourne at Cornmill Gardens	To reflect the key habitat feature on site and the ecological enhancements undertaken along the river.
Chinbrook Meadows	River Quaggy at Chinbrook Meadows	To reflect the presence of the River Quaggy as the main focus of this site.
Dacres Wood Nature Reserve and Sydenham Park Railway Cutting	Dacres Wood Nature Reserve and Sydenham Park Railway Cutting (LNR)	To include the statutory designated site within name.
<u>Downham Woodland Walk</u>	<u>Downham Woodland Walk (LNR)</u>	To include the statutory designated site within name.
Ladywell Fields	River Ravensbourne at Ladywell Fields	To reflect the key habitat feature on site and the ecological enhancements undertaken along the river and creation of tributary.
Manor House Gardens	River Quaggy at Manor House Gardens	To reflect the presence of a section of the River Quaggy within the grounds of the Garden.
Lower Sydenham Station Allotments	Lower Sydenham Station meadow	To better reflect the nature of habitats present.
Southend Pond	River Ravensbourne at Peter Pan's Park & Southend Pond	To reflect the presence of the River Ravensbourne within Peter Pan's Park.

Site Name	Proposed Name	Details
Sedgehill School	Sedgehill School Boundaries	To reflect the extent of the proposed SINC.
Sue Godfrey Nature Park	Sue Godfrey Nature Park (LNR)	To include the statutory designated site within name.

Area of Deficiency

4.9 As a result of the SINC recommendations proposed in this report, the borough's Areas of Deficiency in nature have been reduced from 520ha to 337.4ha, a reduction of 182.6ha or 35% (Figure 5). The sites which have influenced the calculation specifically are:

- Bridgehouse Meadows upgrading from local to borough importance and adding new areas to the north and south;
- Ladywell Fields upgrading from local to borough importance;
- River Quaggy and Manor Park upgrading from local site to borough importance and improving access from the south;

4.10 Improvements within Lewisham have also resulted in a reduction of the AoD within adjacent boroughs. These are the result of a boundary extension to Beckenham Place Park reducing the AoD by 28.5ha in the London Borough of Bromley. A further 45.5ha has also been reduced from the London Borough of Southwark as a result of Bridgehouse Meadows proposals.

HABITAT LINKAGES

Lewisham's Ecological Network

4.11 Key components of Lewisham's ecological network have been identified using recognised terminology (Lawton, 2010) and reference to the All London Green Grid (GLA, 2012). This includes core habitat areas, strategic habitat corridors, restoration zones and local restoration areas. Components have been given a number so they may be referenced in future planning policies. The information is based on our understanding at the borough level and should be used as a guide. Figure 4, Appendix 1 illustrates the

location of the components and how these relate to existing SINCs, existing Areas of Deficiency and adjacent boroughs.¹⁸

Core habitat areas (CHA)

4.12 Five core habitat areas are represented on Figure 4 (Appendix 1). Three are located in Southwark and overlap partly with Lewisham. The two located primarily in Lewisham represent the best of Lewisham's habitats and species assemblages and form large areas of green space in what, otherwise, is a highly urbanised borough. The size, maturity, species-richness and contiguous nature of the terrestrial and aquatic habitat (on public and private land) in these areas, provide refuge for a wide range of wildlife.

- CHA01: The Great North Wood- centred around Dulwich (partly in Southwark);
- CHA02: The Old Docks –Centred around Rotherhithe (Southwark);
- CHA03: The Cemeteries – Centred around Peckham Rye Park (Southwark);
- CHA04: Blackheath and Greenwich Park south to Blackheath railsides; and
- CHA05: Beckenham Place Park, north to Grove Park Cemetery.

Strategic habitat corridors (SHC)

4.13 There are five strategic habitat corridors formed by river and railway line/sidings. Forest Hill to New Cross Gate Railway Cutting (part of SHC01 South Bermondsey to Sydenham rail corridor) is effectively a core habitat due to its Metropolitan status but, it also forms a habitat corridor linking core habitat areas along the borough's western boundary with Southwark. SHC02: Deptford Creek, The River Ravensbourne, The Pool River and rail corridor corresponds with the All London Green Grid strategic corridor through the centre of the borough. River enhancements at Brookmill Park (near Deptford Bridge), Cornmill Gardens (Lewisham town centre) and at Ladywell Fields (Catford), have created new aquatic and terrestrial habitat and provide suitable habitat for Lewisham's iconic species, the kingfisher, which is now regularly seen along the rivers. Rail corridors comprise: SHC03 Lewisham to Bromley rail corridor, SHC04 Lewisham to Greenwich rail corridor and SHC05: Brockley to Blackheath rail corridor support sizeable areas of native woodland. South of Hither Green Station, six large SINCs are contiguous with the rail-line, which widen to form large vegetated sidings.

¹⁸ The map represents a strategic overview of Lewisham and is not intended to be definitive. Other core habitat areas, habitat corridors and restoration areas may occur at the local level.

Restoration zones (RZ)

- 4.14 There is one main restoration zone (RZ01) around Deptford and New Cross and a smaller stretch along the River Thames. These areas are in a state of change with large areas being developed. North-west Lewisham currently has the largest “Area of Deficiency to Nature” due to a lack of borough SINC’s and the River Thames excluded due to its inaccessibility. It will be important to ensure green infrastructure is properly planned in order to reduce to size of the “Area of Deficiency to Nature” in this area.
- 4.15 Although the industrial legacy of the Thames has left a hard-edge to the river, its tidal pattern brings a valuable sense of “naturalness” as experienced at Creekside Education Centre. Enhancements to open space surrounding Pepys Park Nature Area, including linking to the river, could potentially bring this site up to borough importance in the future, increasing access to nature and improving the link with the River Thames. The proposed borough grade SINC at Bridgehouse Meadow will also help to improve access to nature.

Local restoration area (LRA)

- 4.16 There are three local restoration areas:
- LRA01: The River Ravensbourne course identifies the value of river restoration from Catford south towards Beckenham Place Park, in order to maximise the ecologically potential and amenity value of the river Ravensbourne.
 - LRA02: Crofton Park Rail Link demarcates the potential for enhancing habitat connectivity between the two joining strategic habitat corridors.
 - LRA03: Brimington Park and Surroundings is partly in Southwark and overlaps with the restoration zone around Deptford and New Cross. Improving access to nature in this area would have benefits to both boroughs.

Softening the matrix

- 4.17 Where opportunities arise, new development should incorporate relevant green infrastructure features such as biodiverse green roofs, SuDs and locally suitable planting to maintain and improve the ecological function and character of core habitat areas, strategic habitat corridors and restoration areas. Areas where these interventions could help initially are:
- between Hilly Fields, Brockley and Ladywell Cemeteries and Crofton Park;
 - between Pool River Linear Park and Southend Park;

- between Hither Green Cemetery, a Lewisham Crematorium and Reigate Road Open Space and Downland Woodland Walk;
- between Sydenham Cottages Nature Reserve and Chinbrook Meadows; and
- between River Quaggy and Manor House Gardens and Greenwich borough.

Data sharing

4.18 We encourage Lewisham to obligate ecological and landscape/building design consultants to submit their data to GiGL as a standard condition on future planning applications. This ensures data can be made available for the public good – e.g. climate change adaptation. More information can be found at http://www.cieem.net/data/files/Publications/Guidelines_for_Accessing_and_Using_Biodiversity_Data.pdf. The following wording provides an example that could be adopted:

- **Condition:** Provision of biological data to relevant local record centre (LRC) and relevant groups resulting from all ecological surveys carried out as part of the development. This includes protected and notable species records, size and classification of all existing and proposed habitats, planting and design details of all green infrastructure features (e.g. sustainable urban drainage and green roofs) and soft landscaping.
- **Reason:** to ensure decisions on biodiversity are based on the best available evidence and follow best practise guidance in accordance with the Chartered Institute for Ecology and Environmental Management (CIEEM, Guidelines for Accessing and using Biodiversity data, 2016) and in accordance with CIEEM's expectations of members' professional obligations.
 - *Data services provided by LRC are essential for enabling the LPA to incorporate consideration for biodiversity into their daily operations as required by the NERC act, and information obtained from the LRC is vital to inform the focus of new ecological surveys which may be required to support planning applications.*
 - *Biodiversity data are extremely important as, aside from use in planning and decision making, they are key to delivering state of environment reporting, informing agri-environment schemes, education, modelling trends in species and habitat distribution, and research and policy making.*

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Appendix 1: GLA Methodology,
Figure 4 Strategy Map &
Figure 5 SINC Recommendations

Open space and habitat survey for Greater London

1 Introduction

- 1.1. A methodology for open space and habitat survey in London was adopted by the Mayor in his Biodiversity Strategy in 2002. The Mayor's policies, procedures and criteria for evaluation of nature conservation sites (Appendix 1 of the Strategy), include the use of this survey methodology, which is now the main information basis for nature conservation planning in the capital. The survey methodology was first developed and used in 1984/85, when the Greater London Council commissioned the London Wildlife Trust to complete the first comprehensive survey of wildlife habitats in Greater London. It has been updated and consolidated by the London Ecology Unit and, more recently, by the GLA. It has the great advantage that it is standardised and comprehensive, so that any particular site is readily put into perspective.
- 1.2. The format has been further modified in 2004 to take account of the open space typology of PPG17. This opportunity has been taken to make a few other minor modifications. This revised format is recommended in the Mayor's Guide to Preparing Open Space Strategies (a London Plan Best Practice Guide), and will be included in the first revision of the Mayor's Biodiversity Strategy.
- 1.3. Survey is needed for several reasons:
 - to keep the database up to date;
 - to extend the original survey to document sites which are smaller or of less nature conservation interest than those originally documented;
 - to monitor changes in the amount or quality of open space and wildlife habitats, within individual boroughs and in London as a whole.
- 1.4. This survey format is broadly similar to English Nature's Phase I methodology. There are a few small differences in habitat classification, but the two specifications collect essentially the same ecological information, in the same detail, with the same comprehensive coverage. The differences in habitat classification are largely due to the essentially urban setting for which the London survey specification is designed. The other main difference from Phase I is that every site has an individual survey form, in addition to a map, in the London format. This reflects the fragmented nature of green spaces in the urban setting, makes retrieval of data much simpler, and facilitates comparison of sites.
- 1.5. This survey format is sufficiently technical that some expertise in ecology is required to undertake the survey, particularly those sections on the back of the survey form. It is not, therefore, suitable for general public use. The front of the form could, however, be used by a non-ecologist for a stand-alone survey for open space planning. The survey is designed to collect the objective, or relatively objective, raw data. It must be stressed that the interpretation of these data is a separate stage, which should be planned at the same time as a new survey is planned. Such interpretations can be published, as in the London Ecology Unit's series of Ecology Handbooks, but further interpretation is usually required in response to particular planning issues.

2 The ingredients

- 2.1. The basic unit of survey is a piece of land termed a “parcel”. A parcel should be as homogeneous as possible in terms of habitat, ownership and public access, and must lie within a single London borough. Parcels should also be relatively homogeneous in terms of nature conservation importance, as Sites of Importance for Nature Conservation are defined using whole parcels.
- 2.2. Parcels are grouped into “sites”, which may often be better-known large units of open land, such as Hampstead Heath or Walthamstow Marshes. A site should always be defined to correspond with a single management unit, such as a park, common or cemetery. Many smaller sites comprise just one parcel.
- 2.3. These parcels and sites are defined on a survey map. This is usually at a 1:5,000 scale, although larger scales may be appropriate for parts of central London. Public access points to sites are also indicated on the maps. These maps are digitized electronically over Ordnance Survey LandLine or MasterMap data.
- 2.4. Each parcel also has a written record on one or more standard A4 forms (see appendix 4.5). Every parcel must be noted on the first form, which collects information about its name, location, ownership, habitats, species richness and details of the surveyor and the date and duration of visit. The reverse of the form collects information on land use and planning status, accessibility, nature conservation interest, recreational facilities, potential for enhancement, threats, change since previous survey and an evaluation of the nature conservation importance of the parcel. There is a field on this form to cover every aspect normally covered in surveys of this kind except for the species of plants present, and for detailed change statistics, for which there are additional (optional) forms.
- 2.5. A plant recording form will usually only be used for the more interesting or diverse parcels. It allows the collection of a list of species identified, with a coarse indication of abundance and qualifiers relating to maturity and distribution within the parcel. This information can also optionally be written on the parcel form.
- 2.6. The changes form is used where a comprehensive re-survey is to be compared with previous survey(s). Appendix 4 describes its use in detail.
- 2.7. A form is available as a continuation sheet, or for a revisit when the standard details remain much the same. The plant recording form can also be used as a stand-alone form for use on successive visits to a parcel if no major changes have occurred.
- 2.8. When planning a survey, it is essential to decide on the following before starting:
 - the geographical area to be covered (e.g. an individual London borough);
 - the minimum size for a site to be surveyed (in the Mayor’s 10-year rolling programme, this is 0.25 ha);
 - any land uses or habitats to be excluded. It is usual to cover everything predominantly vegetated or water, except private gardens. Open spaces

which are predominantly hard surfaces, such as some town squares, should also be included for open space planning purposes;

- the level and type of photographic documentation required.

3 Detailed instructions for completing the survey form

See the appended form. The form is designed for use in a clip board. One form is filled in for each parcel, but for the first parcel of a site it also serves as a record of the whole site. Any items that are the same for successive parcels within a site (e.g. site name or owner/manager) can be indicated as such with a “*”.

Site and parcel number: This is to be recorded in the format:

Site number/parcel number (number of parcels in the site),

the latter item for the first parcel only. For sites which have already been surveyed, the existing site number should be used. For new sites, a five digit number not already in use should be allocated, according to the format:

First two digits: code for the borough holding the visual centre of the site, including leading zeros. These numbers are listed in Appendix 7.1.

Last three digits: unique number within each borough (001-999) including leading zeros.

Thus, in the example given, “27” is the number of Ealing Borough and “038” is the unique number of the site within the Ealing series. The site has three parcels and this sheet is for parcel 1.

Site name: This must be filled in for every parcel of a site. If at all possible use a name to be found on Ordnance Survey maps. Any secondary names can be given in brackets (e.g. Brent Reservoir (Welsh Harp)). If no established name can be found, a descriptive name should be coined.

Parcel name: This should be filled in if a name exists on Ordnance Survey maps, or if a well-established local name is known. Otherwise, a suitable descriptive name should be coined (e.g. “Hanger Lane railway embankment” or “Pastures in north-east”).

Location: This should be in terms of London road maps (e.g. “east of Fernbank Road, west of the railway and south of Longhale station”).

Owner/manager: Often to be gleaned when gaining access, sometimes to be found on a noticeboard on site. Obtain full address and phone number if possible. Guesses should be indicated as such. Where owner and manager are different, record both if known (e.g. “owned by Railtrack, managed by London Wildlife Trust”).

Access/view from: Indicate access point(s) to a parcel if you gained access, and viewpoints where not.

Permission to enter obtained from: Unless a parcel is obviously accessible to the public, surveyors should not attempt to enter land without permission from the owner or other authorised person. This should ideally be obtained in writing before setting out to survey the site, but may sometimes be obtained on arrival. Note the name, status and telephone number of the person giving permission in this section of the form. If possible, obtain signed written authorisation on a separate sheet.

Grid reference: This should be an eight-figure reference for the visual centre of the parcel as indicated on the specimen form. Almost all of Greater London falls within 100km square 51 or TQ, only a small part of Enfield being in 52 or TL. Thus in most cases “TQ” may be pre-printed on the forms.

Surveyor(s): Initials and surname if not a regular surveyor, otherwise initials will suffice.

Borough: A parcel should fall entirely within a single London borough. A site may be in more than one.

Area: This should be measured to 10% accuracy from the map prepared of the parcel. On a map of appropriate scale, a dot overlay will usually provide this accuracy. Indicate clearly whether the units are hectares or square metres. Alternatively, a more accurate measurement can be obtained from GIS if the map is digitized.

Date: The date of the visit when the information was obtained, in the usual day/month/year format. A new form (which may be a plant recording form or continuation sheet) must be used for each visit to a site.

Time spent: This is the time spent on the parcel during the visit. It need only be approximate, as it is merely a coarse guide to the thoroughness of the examination.

Weather: A brief summary of the weather during the visit, concentrating on factors which affect recording, such as sunshine, rain, rough temperature and wind (e.g. “cloudy but warm, no wind”). This is to provide an indication if a lack of records of, for example, butterflies, is likely to be due to a poor site for butterflies, or to poor weather.

Access gained to: For an indication of the proportion of the parcel that was examined at close range. Add a note to clarify if necessary.

Open space typology: Tick one box only, to refer to the predominant PPG17 typology of the parcel. The categories are defined in appendix 3

Planning status: It will not be possible to complete this section in the field. Instead, it should be completed after the field visit by reference to English Nature’s schedules of Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR, currently only two in London) and Local Nature Reserves (LNR). The relevant adopted UDP Proposals Map should be consulted for other nature conservation and open space designations.

SINC or equivalent includes any site protected for nature conservation (different boroughs use different terms; Site of Importance for Nature Conservation is the most widely used, but others include Site of Wildlife Value, Site for Local Nature Conservation and Area of Nature Conservation Importance). *Green corridor* includes similar designations such as Wildlife Corridor, but not Green Chain, which is recorded separately. *Other protected open space* includes a wide range of designations, including Public Open Space, Urban Green Space, Local Open Land and Private Open Space; specify the designation which applies.

Ownership: Tick one box only. Local authority ownership is any land owned by a borough council or the Corporation of London, except for education land. It should be noted that land owned by health and education institutions, usually playing fields, should be recorded in those boxes rather than in the local authority box, since it is often

difficult to distinguish between hospitals which are run by the NHS and those which are run by trusts, or to know whether schools are in the public sector or not.

Government/crown land includes land managed by the Royal Parks Agency and MOD land. English Heritage, Countryside Commission and similar quangos should be recorded as 'government'. Trusts can be private or voluntary. Religious ownership includes the Church Commissioners and all other religions and Christian denominations. Note which religion or denomination if possible. Note that while churchyards may be managed by a local authority, they will almost always be under church ownership; cemeteries, however, are more likely to be in local authority or private ownership, although non-Christian cemeteries are often under religious ownership. If unsure of ownership, use a "?" in the box of your best guess.

Public access: Tick one box. *De facto* access should be ticked if a site is readily accessible and clearly used by the public, but not if a few children squeeze in through a small hole in the fence. *Restricted* access includes time restrictions, such as open days, (but not parks that close at night, which can be recorded as free access), access only to certain people, such as club members, a financial charge for access, or access only to parts of a parcel, such as footpaths. Always note which type(s) of restrictions apply.

Accessibility by mode: Score each mode of transport from 0-2 as follows:

Pedestrian - This is scaled 0-2, with 0 having no access for pedestrians, i.e. it is completely enclosed by a wall or fence, with no points of entry (including roads); 1 indicates limited points of access, i.e. two or less; and 2 indicates good access for pedestrians, i.e. multiple points of entry. This category is very closely linked to *Entry points* above. Also take into account the distance of the site from residential areas: if the site has no access points within 400 metres walking distance of a residential area (defined as a group of 20 or more dwellings), do not score it higher than 1; if no access points within 800 metres of a residential area, score 0.

Cycle - This is scaled 0-2, with 0 having no access for cyclists, i.e. it is completely enclosed by a wall or fence, with no points of entry (including roads); 1 indicates limited points of access, i.e. two or less, and particular problems relating to cyclists such as limited gate width; and 2 indicates good access for cyclists, i.e. multiple points of entry and/or provision of cycle racks at entrances where cycling is not permitted within an open space and close proximity to either the London Cycle Network or a designated local cycle route.

Public Transport - This is scaled 0-2, with 0 having very poor access to the public transport network (which here includes bus stops, underground, overground and light rail stations), i.e. the site is more than 800 metres or ten minutes walking time to the network; 1 indicates limited access to the public transport network, i.e. the site is more than 400 metres or five minutes walking time to the network (but less than 800 metres/10 minutes walk); and 2 indicates high accessibility to the public transport network, i.e. less than 400 metres or 5 minutes walk to the network. For sites only on bus networks, if bus services are less frequent than one per hour, score 0, and if buses are between one and two per hour score no higher than 1.

Private Car - This is scaled 0-2, with 0 having no access for cars into the site and no car parking within 5 minutes walk of the site; 1 indicates limited or poor access for cars to the site, i.e. several entry points but no on-site parking provision (although off-site

provision may be within 5 minutes walking distance); and 2 indicates good accessibility for cars, i.e. multiple entry points for cars and dedicated on-site parking provision.

Wheelchair – This is scaled 0-2, with 0 having no access to people in wheelchairs (steps at entrances, steep sloped or very narrow, rough or soft paths); 1 indicates limited access for people in wheelchairs, i.e. some but not all entrances wide enough and without steps, only parts of the site suitable for wheelchair access, or the condition of the paths being less than ideal; and 2 indicates good wheelchair access, with most if not all entrances suitable and access to most of the site on an extensive network of well-designed paths.

Level of use: A coarse scale only, to be judged by physical signs as well as by direct observation of people.

Entry points: This applies to entry from outside an open space. It therefore does not apply to any part of a parcel that adjoins another accessible open space. If the parcel has completely open access, i.e. it has no boundary fence or wall limiting access, the *open access* box should be ticked, and an indication given as to whether this applies to the whole or only part of the parcel. However, if the parcel is bounded by a wall or other structure which limits the number of entry points, the *limited entry points* box should be ticked. In this case, it will also be necessary to indicate the access points on the 1:10,000 maps. In a few cases, for example, Tooting Bec Common, it may well be that a combination of access arrangements apply, i.e. some of the site is bounded by a fence and thus has limited access, whilst other parts may have open access, such as a road running along the site boundary. If this is the case, the individual points of access and lengths of open access should be indicated on the 1:10,000 map. If a parcel is completely surrounded by other accessible open space, the third box should be ticked.

Maintenance: Tick one box only. This is a subjective evaluation, and should be judged with regard to the intended land use(s) of the site. Good maintenance of a formal park differs markedly from good habitat management in a nature reserve. Tick *satisfactory* if the overall standard of maintenance seems adequate for the intended use. Tick *good* if it seems that special efforts have been made to maintain a better than average overall standard of maintenance. Tick *poor* if there are signs of inadequate maintenance.

In parks and other formal open spaces, signs of poor maintenance to look out for include worn out playing pitches; overflowing rubbish bins, tatty flower beds, litter, pot-holed footpaths and roads, worn-out grass areas (or signs that the mower blades were too low and have scraped off most of the turf), and structures and other features (including fences, buildings, gates, seats and lighting) that need cleaning, repair or painting. If none, or few, of these things are present, tick *satisfactory*, unless everything is unusually spick and span and in good repair, in which case tick *good*.

In sites managed for nature conservation, signs of poor maintenance might be litter and tipping, invasive plants including scrub invasion of high-quality grasslands, inappropriate tree planting or over-zealous tidying of dead wood. In some nature reserves, no maintenance at all might be satisfactory, but this is by no means always the case. Good path maintenance is always a sign that at least *something* is being done (and conversely poor or no path maintenance suggests that the site is neglected).

In the case of cemeteries, poor maintenance may be demonstrated by a significant number of headstones leaning over, or clear signs of untreated subsidence. Allotments may *appear* to be unmaintained; but do not identify them as unmaintained if there are

clear signs that they are in use - no matter how scruffy they look. Obviously, disused or partly disused allotments can qualify as poorly maintained (unless they are deliberately being left wild for nature conservation).

Predominant recreational use: Tick one box only. *Active* recreation includes pitch sports, tennis, swimming and running. *Passive* recreation includes walking (with or without dog) relaxing, sunbathing and nature study. If a large park has small areas of facilities for active recreation, tick *passive*. If sports facilities dominate a park, tick *active*. The relevant UDP Proposals Map or Ordnance Survey map may be useful if unsure which to tick.

Facilities: More than one box may be ticked (note that boxes for tennis courts and pitches require numbers). Explanations of some of the more ambiguous general facilities are provided below:

Play Equipment for under 7s includes play equipment that has been formally designated by the borough council on a sign or notice board as only suitable for children under the ages of seven and is normally signed to such effect. However, the category may also include play equipment that is not formally designated, but which is clearly for use by children of the aforementioned age, i.e. swings with cradles, small slides, seesaw, etc.

Play Equipment for 7-13 year olds includes play equipment that has been designated by the council on a sign or notice board as only suitable for children of the aforementioned age range. However, the category may also include play equipment that is not designated, but which is clearly for use by such children and may include such features as aerial ropeways, large slides and climbing frames.

Play Equipment for over 13s includes facilities such as skateboard tracks and basketball hoops clearly designed for use by teenagers. Such facilities may not be formally designated on a sign or notice board.

Seats: only tick the box if you consider that someone wanting to sit down would stand a reasonable chance of finding a seat. Thus, don't tick if there is only one seat in a huge park.

Refreshments includes only permanent structures or buildings for that purpose and does not include temporary or mobile facilities.

Facilities for the Disabled could include either specific provision in limited areas such as access, Braille signs, disabled toilets, scented gardens etc., or the entire site could be designed to meet the needs of the disabled (if so, this should be indicated in the notes on the questionnaire form).

Litter bins : use the same criteria as for *seats*.

Car parking : tick only if there are parking spaces within the site. On-street parking around or close to the site doesn't count. Car parks should be within the curtilage of the site, laid out for that purpose, not an area which represents an encroachment into the site, or local on-street parking.

Nature trails includes those areas of a site set out with signposts/guides indicating the significance of features.

Historical features: includes great houses, follies, bandstands, pump houses, bridges, ice houses, orangeries, old walled gardens, historic greenhouses, historic tombs and monuments, etc. Include all 'listed' buildings and structures.

Art Gallery: such as the Serpentine Gallery in Kensington Gardens, but not temporary displays such as the Sunday morning Bayswater Road display on the railings alongside Kensington Gardens.

Sculpture/monuments: you might already have ticked *historical features* for these; don't be afraid to tick again. Be careful with piles of bricks and other things that might look to you like rubbish, but which might be 'installations' or even 'art'. Most cemeteries will include monuments.

Dog litter bins/areas: tick this if there are special bins for dog crap. Look out for dog-shit areas, which may be indistinguishable from sandpits. There ought to be signs.

Information: includes information boards, interpretation panels, leaflets available in cafes, etc.

Cycle Paths means formally designated surfaced routes for cyclists (such as the London Cycle Network). This does not, however, include facilities for off-road/mountain biking (even if way-marked).

Water Sports include water skiing, rowing and sailing, but not swimming.

Fishing includes only where coarse angling is permitted. There are usually signs indicating fishing rights. Do not assume that someone fishing has a right to do so.

Playing Pitches includes pitches formally marked out for the purposes of rugby, football, hockey, and other field sports. Specify the total number of pitches. In the boxes below the Playing Pitch category indicate number that are *Mini*, *Junior* or *Full* size. Junior pitches are approximately 2/3rds the size of full size pitches and Mini pitches are approximately half the size. Then indicate in the adjacent boxes the number that have the following surfaces *All Weather*, *Natural* or are *Floodlit*. *All weather surfaces* include astroturf pitches and hard surface tennis courts.

Horse riding can include *rides* (such as Rotten Row in Hyde Park), bridleways and riding centres (which usually have stables and other facilities such as showjumping).

Threats and disturbances: Give brief details of any of these which apply, noting the nature and severity of the problem in each case.

Invading plants includes scrub invasion of grassland as well as invasive aliens.

Erosion is damage caused by excessive wear, either through overuse of a site with inadequate maintenance, or through muddy paths "expanding", or through mountain biking, etc. Deliberate damage should be recorded under *vandalism* below.

Motorcycle scrambling is a common cause of erosion and habitat damage, as well as a threat to the safety of people using the site, and a noisy intrusion. Note if possible whether the motorcycle use is authorised or not (it is usually not).

Intrusive buildings are unattractive features, such as tower blocks, gas holders, masts, pylons, elevated roads and railways, that overlook the open space in a way that is

unsympathetic to its ambience. They need not be on the boundary. (The *boundary* is treated separately, see below.) Note if any of these things can be seen from the open space. Are they pervasive, i.e. always in the background or can you get away from them? Remember: they don't need to be adjacent to the site; they could be some distance away and still affect the ambience of the open space. Include pylons, railways etc. that cross the site.

Boundary treatment: note if the boundary of the open space is unattractive. This can be if the use is intrinsically unattractive, such as a sewage treatment works, a major traffic-ridden road, industrial buildings (unless attractive, modern, high-tech). It can also be if the boundary feature itself is unattractive. Typically, the boundary between houses and open space comprises a jumble of sheds, wooden fences, chicken wire and concrete slab walls, much of which is likely to be dilapidated, and often with signs of graffiti. Do note, however, that some boundaries, such as old, weathered brick walls, can be quite attractive. In all cases, use your judgement to determine whether the impact of the intrusive feature(s) is significant.

Redevelopment: Imminent redevelopment can be a serious threat. You may have foreknowledge of this (it may indeed be the reason for the survey). Signs on site include planning notices, advertisements for sale of vacant land, etc.

Safety/security: Note here any factors affecting public safety or the perception of public safety. This could include uneven paths and hidden holes, dangerous structures, evidence of use by alcoholics or drug users, and the availability of hiding places for potential lurkers, particularly near paths. Comments on sightlines, lighting and the proximity of other people might also be useful.

Vandalism/graffiti: Take care to distinguish between vandalism and poor maintenance. Vandalism is caused deliberately, not accidentally or by heavy use. Signs include graffiti; the contents of litter bins deliberately strewn across the site; broken windows; and obvious damage to other structures and features.

Litter/Dog fouling is perhaps the most common cause of complaint and annoyance for open space users. Most places are likely to have a small amount of litter, and places where dogs are allowed usually have some fouling. Record whether the problem is minor, moderate or severe.

Tipping includes fly tipping, dumped cars or dumping of household/garden waste over a fence; needs to be distinguished from serious litter problems, recorded above.

Pollution includes signs of contaminated land, dumping of toxic substances (such as oil drums) and water pollution. You could also include a note here if poor air quality affects the enjoyment of an open space beside a busy road.

Record *aircraft noise* or *road/rail noise* only if these are significant enough to affect the enjoyment of the site by people or to disrupt wildlife such as singing birds. Be aware that low cloud can muffle aircraft noise. With road or rail noise, note whether it affects the whole parcel, or whether it is possible to "escape".

Other includes any threat not covered by the above.

Interest/Potential for enhancement: A space for brief notes on the role of the open space and how the parcel might be improved. Use the “Notes” section overleaf to expand if necessary.

Recreation to note whether this is a major facility or could include potential to provide new facilities for a variety of formal and informal types of outdoor recreation, including for children’s play.

Structural might include noting the contribution of the space to the character and attractiveness of the area or its inclusion in a larger network or group of sites.

Amenity could include access improvements, including for people with disabilities, or the provision of seating, shade or shelter.

Ecology might include brief suggestions for habitat management or a note that a little-used corner of a park might be appropriate for nature conservation management or habitat creation.

Education could include the proximity of a primary school, or the need for some interpretation, or the suitability of the site for a nature trail.

Social and Cultural could include noting any facilities/information provided that are targeted at specific user groups or whether the space is used for community events.

Heritage could note the historic importance of the space, its features or its relationship with the surrounding area, for example important listed buildings on the boundary or whether it is a designed landscape.

Health could note any evidence of activities, such as Green Gyms or Trim Trails, or sensory environments for the visually and hearing impaired.

Accessibility could include any suggestions for improve the access into the space for example opening up new access points close to stations.

Change since last survey: Make brief notes on any changes. *Significant* changes include the loss (through redevelopment, etc) of part or all of a parcel, major changes in habitat or management (such as total scrub invasion of a grassland site), or a boundary change moving the parcel from one borough to another. *Minor* changes include small changes in habitats or management (some scrub invasion, introduction of grazing, etc). Tick *Error in last survey* if it is clear that a significant error was made in defining boundaries or the classification of habitats. This does not include small differences of opinion over the percentages of different habitats. For parcels where there has been a significant or minor change the losses and gains are recorded in a separate record.

Geology, topography, aspect, drainage, soil: Notes on any of these factors where possible, with reference to geological maps if necessary.

Contacts/others’ information/history and succession: For notes on people or organisations (other than the owner/manager) known to be interested in the site, for information provided by other people, and notes on known historical sources on the site or parcel.

Habitats: It is best if a parcel can comprise a single habitat, but this may be relaxed if additional habitats comprise a very small area, or if there is an intricate mix (such as hawthorn bushes invading grassland, or a park with scattered trees, hedges, shrubbery

and hard surfaces among amenity grassland). This can also be relaxed for a parcel comprised solely of heavily improved or managed land of fairly low wildlife value, such as an area of playing fields with some standard trees around its edges.

Aerial photographs are often of value when estimating the percentage cover of each habitat. Percentage cover should be expressed to the nearest 10%, except for very small percentages and consequently to make the sum 100%.

Appendix 4.2 gives a definition of each of the habitats, with notes on how to judge marginal cases. The definitions of some of the swamp/fen habitats have been changed to reflect the priority given to reed beds in biodiversity action plans.

Habitat qualifiers: These are located in three columns beneath the habitats on the form, and generally refer to the habitats in the column directly above them. Tick or fill in any that apply. Use a question mark if uncertain. The percentage shrub layer should always be estimated for woodland, but this need be only to the nearest 10%. “Sand/clay bank” refers to a sloping or vertical face of bare sand or earth which might be of value to invertebrates such as burrowing hymenoptera.

Species richness: This is a visual assessment of the number of vascular plant species in the parcel in relation to similar parcels elsewhere in Greater London. All species, whether native or not, count for this assessment, except for those obviously planted and not reproducing. As the comparison is within, not between, habitat types, it is possible to have a low score for naturally rich habitats such as chalk grassland or a high one for naturally poor habitats like heathland. If the survey was carried out at an inappropriate time of year, or a significant proportion of the parcel was not examined closely, “not known” should be ticked. It may, however, be possible in some circumstances to make a meaningful assessment without actually entering a site.

Interest: A particular interest is to be ticked if the site is judged to be notable for that factor. Tick the box if you have direct evidence (e.g. one or more locally rare plants present, or a slow-worm seen, or a badger path crossing the site), or use a “?” if the judgement is based more on the character of the habitat than direct observation (e.g. the site looks good for reptiles or there are features which might be utilised by bats).

Nature conservation value (surveyor’s personal view): This is for the surveyor’s view of the nature conservation value of the site. It is somewhere to wax lyrical. Beware of damning a parcel (except with faint praise); good places can be misjudged at the end of a hard day’s work, even the best surveyor can miss something of significance, and a considered judgement will include factors not obvious on a field visit.

Notes, sketch map: A sketch map is desirable if no field map or aerial photograph is carried during the survey or if there are new details to be recorded which are fine enough not to be clearly annotated on the scale of the field map carried. It is better, if possible, to carry both an aerial photograph and a field map at an appropriate scale.

This area is valuable for noting observations made while walking about the parcel. Always note the dominant plant species for each habitat, and any notable plants, as well as any fauna identified, such as birds, butterflies and signs of mammals. Full lists of plants may be recorded here, but for more diverse parcels (generally more than about 15 species of plants) it is preferable to use the plant recording form.

Appendix 1 Borough codes for assigning site numbers

<u>Code</u>	<u>Borough</u>	<u>Code</u>	<u>Borough</u>
00	City of London	17	Newham
01	Westminster	18	Bexley
02	Camden	19	Bromley
03	Islington	20	Croydon
04	Hackney	21	Sutton
05	Tower Hamlets	22	Merton
06	Greenwich	23	Kingston upon Thames
07	Lewisham	24	Richmond upon Thames
08	Southwark	25	Hounslow
09	Lambeth	26	Hillingdon
10	Wandsworth	27	Ealing
11	Hammersmith & Fulham	28	Brent
12	Kensington & Chelsea	29	Harrow
13	Waltham Forest	30	Barnet
14	Redbridge	31	Haringey
15	Havering	32	Enfield
16	Barking & Dagenham	99	Outside Greater London

Appendix 2 A list of habitats for open space survey in London

<u>Code</u>	<u>Name</u>	<u>Definition</u>
01/02 /03	Woodland	Stands of trees forming at least 75% cover, including coppice and trees of shrub size, but excluding fen carr (19). Includes stands of willow except <i>Salix cinerea</i> , <i>caprea</i> and <i>viminalis</i> , but excludes hawthorn, hazel (except hazel coppice with standards), elder, juniper and the three willow species listed above, which are always scrub (06) regardless of height. Where the species composition does not fulfil any of 01, 02 or 03 below, code as a mixture. Always record % shrub layer under the qualifiers.
01	Native broadleaved woodland	Woodland (see above) with native broadleaved species (i.e. excluding sycamore and sweet chestnut) comprising at least 75% of the canopy.
02	Non-native broadleaved woodland	Woodland (see above) with non-native broadleaved species (including sycamore and sweet chestnut) comprising 75% of the canopy.
03	Coniferous woodland	Woodland (see above) with coniferous species (including yew) comprising 75% of the canopy.
37	Scattered trees	Trees forming less than 75% canopy cover over another habitat (excluding coppice with standards, which is coded as woodland). Record percentage tree cover here, and the rest of the area under the appropriate habitat.
05	Recently felled woodland	Does not include coppice, which is coded as woodland.
06	Scrub	Dominated (at least 75% cover) by shrubs (usually less than 5 metres tall), excluding fen carr (19), heathland (15), young woodland, coppice, hedges (25, 34) and planted shrubberies (38). Includes stands of hawthorn, hazel (except coppice with standards), elder and <i>Salix cinerea</i> , <i>caprea</i> and <i>viminalis</i> regardless of height.
38	Planted shrubbery	Dominated (at least 75% cover) by shrubs, usually non-native species, the majority of which have clearly been planted. Excludes hedges (25, 34).
25	Native hedge	Line of shrubs, with or without treeline, one or two mature shrubs wide (wider belts should be coded as scrub or woodland), with native species comprising at least 75% of the shrubs.
34	Non-native hedge	As above but with non-native species comprising at least 75% of the shrubs. If neither 25 nor 34 apply, code as a mixture.
31	Orchard	Planted fruit or nut trees forming at least 50% canopy cover.
36	Vegetated walls,	Includes ruins, fences and other artificial structures with an appreciable amount of vegetation (including mosses and lichens) but excluding

<u>Code</u>	<u>Name</u>	<u>Definition</u>
	tombstones. etc	artificial water margins, which should be coded as wet marginal vegetation (18) if vegetated.

26	Bare soil and rock	Includes active quarries, fresh road workings, spoil or tipping and earth banks of water habitats, where these are minimally vegetated. Excludes arable land (28).
27	Bare artificial habitat	Includes tarmac, concrete, railway ballast, gravel paths, buildings and artificial margins to aquatic habitats, where these are minimally vegetated.
08	Acid grassland	Un- or semi-improved grassland on acidic soils, with less than 25% cover of heather or dwarf gorse. Excludes reedswamp (17). Usually with one or more of <i>Deschampsia flexuosa</i> , <i>Molinia caerulea</i> , <i>Nardus stricta</i> , <i>Juncus squarrosus</i> , <i>Galium saxatile</i> , <i>Potentilla erecta</i> or <i>Rumex acetosella</i> in abundance.
09	Neutral grassland (semi-improved)	Mesotrophic grassland usually with one or more of <i>Arrhenatherum elatius</i> , <i>Deschampsia cespitosa</i> , <i>Alopecurus pratensis</i> , <i>Cynosurus cristatus</i> , <i>Dactylis glomerata</i> , <i>Festuca arundinacea</i> or <i>F.pratensis</i> . Contains more than just <i>Lolium perenne</i> , <i>Trifolium repens</i> , <i>Rumex acetosa</i> , <i>Taraxacum</i> , <i>Bellis perennis</i> and <i>Ranunculus</i> species (see 07 and 11), but lacks the characteristic forbs of 35. Excludes reedswamp (17).
35	Neutral grassland (herb-rich)	Mesotrophic grassland with more forbs typical of old grassland than 09. Likely to contain one or more of <i>Primula veris</i> , <i>Lychnis flos-cuculi</i> , <i>Achillea ptarmica</i> , <i>Silaum silaus</i> , <i>Succisa pratensis</i> , <i>Stachys officinalis</i> , <i>Serratula tinctoria</i> , <i>Ophioglossum</i> , <i>Gensita tinctoria</i> , <i>Sanguisorba officinalis</i> or <i>Caltha palustris</i> , or an abundance of <i>Carex ovalis</i> , <i>Pimpinella saxifraga</i> , <i>Conopodium majus</i> , <i>Cardamine pratensis</i> , <i>Knautia</i> or <i>Filipendula ulmaria</i> .
10	Basic grassland	Un- or semi-improved grassland containing calcicoles. Usually with some of <i>Brachypodium pinnatum</i> , <i>Bromopsis erecta</i> , <i>Heliotrichon pratense</i> , <i>Thymus polytrichus</i> , <i>Sanguisorba minor</i> , <i>Centaurea scabiosa</i> or <i>Origanum vulgare</i> in some abundance.
11	Improved or re-seeded agricultural grassland	Species-poor mesotrophic grassland containing little but <i>Lolium perenne</i> , <i>Trifolium repens</i> , <i>Agrostis</i> species, <i>Bellis perennis</i> , <i>Taraxacum</i> and <i>Ranunculus</i> species. Distinguished from 07 by its agricultural use and hence usually less frequent mowing.
07	Amenity grassland	Usually frequently mown, species-poor mesotrophic grassland characteristic of parks and sports pitches, containing similar species to 11. Scattered trees and shrubberies in parks should be coded separately.
12	Ruderal or ephemeral	Communities composed of pioneer species such as occur in early succession of heavily modified substrates. Typical species include <i>Senecio squalidus</i> , <i>S.vulgaris</i> , <i>Sinapis arvensis</i> , <i>Poa annua</i> , <i>Hirschfeldia incana</i> and species of <i>Polygonum</i> , <i>Persicaria</i> , <i>Melilotus</i> , <i>Atriplex</i> , <i>Chenopodium</i> , <i>Medicago</i> , <i>Vulpia</i> , <i>Picris</i> , <i>Lactuca</i> , <i>Diplotaxis</i> , <i>Conyza</i> and <i>Reseda</i> .
13	Bracken	Stands where bracken is dominant. Also used with other habitat codes to indicate scattered bracken.

14	Tall herbs	Stands of tall non-grass herbaceous species, often rhizomatous perennials, such as <i>Fallopia japonica</i> , <i>Conium maculatum</i> , <i>Chamerion angustifolium</i> , <i>Anthriscus sylvestris</i> , <i>Urtica dioica</i> , <i>Epilobium hirsutum</i> , <i>Solidago canadensis</i> and species of <i>Aster</i> and <i>Heracleum</i> . Excludes herbaceous fen vegetation 32).
33	Roughland	An intimate mix of semi-improved neutral grassland (09), tall herbs (14) and scrub (06). If these occur in large enough patches they should be coded separately. Usually the next successional stage after 12.
15	Heathland	Dwarf-shrub cover greater than 25% of species such as heathers and <i>Ulex minor</i> , with less than 50% cover of <i>Sphagnum</i> . May include a large amount of acid grassland (06) in a close mosaic, but code as a mixture if grassland areas are large.
39	Allotments (active)	Communal allotment gardens which are under cultivation. Code disused plots under other habitats as appropriate.
28	Arable	Cropland, horticultural land (excluding allotments), freshly ploughed land and livestock paddocks stocked so heavily as to have little vegetation.
16	Bog	Dominated by <i>Sphagnum</i> mosses (greater than 50% cover) with water table at or just below the surface.
17	Reedswamp	Stands of <i>Phragmites australis</i> with at least 75% cover of reeds. Includes dry and tidal stands.
40	Typha, etc swamp	Stands of <i>Glyceria maxima</i> , <i>Typha</i> species or <i>Phalaris arundinacea</i> where these species form at least 75% cover.
18	Wet marginal vegetation	Emergent vegetation with a permanently high water table in strips less than five metres wide on the margins of water bodies. Contains species such as <i>Iris pseudacorus</i> , <i>Apium nodiflorum</i> , <i>Acorus calamus</i> and species of <i>Rorippa</i> , <i>Alisma</i> and <i>Juncus</i> . May include <i>Phragmites</i> , <i>Typha</i> and <i>Glyceria maxima</i> , but where these form single-species stands code as 17 or 40 respectively. Usually too small to map but must always be coded if present.
19	Fen carr	Woodland or scrub over herbaceous vegetation with the water table above ground for most of the year.
20	Standing water (includes canals)	Lakes, reservoirs, pools, wet gravel pits, ponds, canals, docks and brackish lagoons beyond the limit of swamp or wet marginal vegetation. Always code vegetated margins separately and note trophic status and whether saline or tidal.
21	Ditches (water filled)	Distinguished from 20 and 22 by their (often agricultural) drainage role. Always code vegetated margins separately and note trophic status and whether saline or tidal.
22	Running water	Rivers and streams. Always code vegetated margins separately and note trophic status and whether saline or tidal.

23	Intertidal mud, sand, shingle, etc	Intertidal areas without significant vegetation of higher plants. Try to record the extent at low tide.
24	Saltmarsh	Intertidal areas appreciably vegetated with higher plants, excluding reedswamp (17).
30	Habitat information not available	Areas which cannot be observed due to restricted access, etc.
29	Other	To be avoided if possible. Must be specified if used.
32	Species-rich herbaceous fen	Stands of herbaceous vegetation where the water table is above ground for most of the year, with less than 75% dominance of <i>Phragmites</i> , <i>Typha</i> , <i>Glyceria</i> and <i>Phalaris arundinacea</i> . Distinguished by width from 18. So rare in London that it is not on the survey form; write in under "Other" if required.

Appendix 3 Typology categories

i. Parks and Gardens

Park refers to traditional public open spaces laid out formally for leisure and recreation. They usually include a mixture of lakes, ponds, lidos, woodland, flower beds, shrubs, ornamental trees, play spaces, formal and informal pitches, bowling greens, tennis courts, golf pitch & put, footpaths, bandstands, toilets, cafes and car parks - but not necessarily all of these. Parts of some parks might be managed as so-called natural areas. Examples of parks include the Royal Parks, municipal parks such as Battersea and Victoria, and wilder places such as Hampstead Heath which, although having distinctly informal qualities, are maintained predominantly for the same purpose, and include the usual swings and roundabouts and playing pitches. Many parks are enclosed by walls or railings, although some parks that began as common land may not be enclosed.

Formal garden refers to spaces with well defined boundaries that display high standards of horticulture with intricate and detailed landscaping. It includes the London squares common to central London, which are typically square areas of grass with some shrub borders, bounded by railings, and surrounded by buildings. Examples include Belgrave Square and Soho Square.

ii. Natural and Semi Natural

Common refers to publicly accessible open space that has few if any 'facilities'. It will typically be mainly open rough grassland (not mown playing field or recreation ground type grass) and/or woodland, and may have a limited provision of facilities. In typology terms, commons are much less formal than parks or parkland. Examples include Wimbledon Common, Wanstead Flats, and parts of Epping Forest.

Private woodland refers to woodland which is not accessible for recreational use, nor managed for nature conservation. Record this under "other" until the survey form is revised to accommodate it.

Nature reserve is a category reserved for an open space that is managed primarily for nature conservation. Do not tick this box just because the site has a nature conservation designation. Many parks, etc. have such designations. An SSSI is likely to have park, common or agriculture as its type. Designated Local Nature Reserves, however, are recorded here. Also do not tick this box where you find small areas set aside for nature within parks, commons and other open spaces.

iii. Green Corridors

River should only be used for rivers and streams that do not form part of another land use, such as park, common or nature reserve.

Canal implies an artificial waterway which is navigable. Include docks in this category.

Railway cutting and **railway embankment** are self-explanatory.

Disused railway trackbed is usually obvious, with some traces of its former use. Where disused trackbeds are specifically managed for nature conservation, such as Parkland Walk, record as nature reserve.

Road island/verge is self-explanatory. Record as nature reserve if specifically managed for nature conservation.

Walking / cycling route is a designated footpath / cycleway through informal open space often along former railways or canals but record these examples as Disused railway trackbed or Canal.

iv. Outdoor Sports Facilities

Recreation ground is an area of mown grass used primarily for informal, unorganised ball games and similar activities (including dog walking). Not to be confused with playing fields, below.

Playing field is a site comprising playing pitches, usually for football, but also for rugby and hockey and, in the summer, for cricket. Playing pitches may not always be laid out in the summer, so look out for notice boards or changing rooms and pavilions for evidence. Include sites here even if they appear disused. Include school playing fields. Almost always, playing fields consist *only* of pitches; but they will sometimes have other bits of open land around the edges. Do not include sites that *partly* contain playing pitches but are more properly categorised as parks or commons. Pitches are often to be found in parks and commons, but the type here is concerned with sites that are exclusively or predominantly reserved for organised team sports.

Golf course: do not include golf courses that are part of parks, commons etc. This type does not include golf driving ranges, pitch & putt or crazy golf.

Other recreational is to be used for sites that are used exclusively or predominantly for other organised sports such as bowls, tennis and golf driving ranges (but not golf courses, see below).

v. Amenity

Village green is usually an expanse of grass in the centre of old villages, often used in the summer for cricket.

Hospital includes the grounds of any clinic or health centre.

Educational refers to school or college grounds and field study centres where school education is the primary function. Nature sites which cater for schools and for the general public should be recorded under nature reserves. School playing fields should be recorded under playing fields.

Back garden land is self-explanatory. While most surveys exclude private gardens, backlands are often surveyed for planning casework.

Landscaping around premises includes communal amenity space around housing estates and community centres, and also landscaping around industrial premises.

Reservoir includes covered reservoirs unless these form part of a park.

vi. Children and Teenagers

Play space is a site set aside mainly for children. It will contain the usual paraphernalia of swings, slides and roundabouts. Do not record play spaces here if they form part of parks, commons and other open spaces.

Adventure playground is a defined play area for children in a supervised environment. Boundaries and entrances are secure.

Youth area is a defined area for teenagers including skateboard parks, outdoor basketball hoops and other more informal areas such as ‘hanging out’ areas and teenage shelters.

vii Allotments, Community Gardens and City Farms

Allotments should be obvious. Include them even if they appear or are disused.

Community garden includes an area that is generally managed and maintained by the local population as a garden and/or for food growing and normally restricted in their access. For examples Pheonix Garden in Holborn.

City farm includes areas that are generally managed and maintained as a small farm by the local population, containing livestock and planting and normally restricted in their access. For example Freightliners Farm in Islington.

viii. Cemeteries and Churchyards

Churchyard/cemetery includes burial grounds, graveyards, crematorium grounds and memorial gardens, and gardens or grounds of non-Christian places of worship. Some former or burial grounds that have become full have been converted to informal leisure or recreation spaces; where the gravestones have been removed, these should be recorded as *parks*.

ix. Other Urban Fringe

Equestrian centre includes any land used for intensive horse keeping and riding, but not extensive horse grazing, which should be recorded as agriculture.

Agriculture includes arable and grazing land, including horse grazing, and market gardening (such as vegetables, often grown under cloches, etc.).

Nursery/horticulture does not include commercial retail nurseries (although these might legitimately form a part of a park or common, etc.). Horticulture includes areas of permanent glasshouses.

x. Civic Spaces

Civic/ market square includes tarmac areas or paved open spaces, which may or may not include planting. However, they do not necessarily have seats and may just be a plaza area, with some planting (usually trees) and public art. Often provide a setting for civic buildings and opportunities for open air markets, demonstrations and civic events. Examples include the area in front of the jubilee line station at Canary Wharf, and the plaza in front of Westminster Cathedral.

Other hard surfaced areas include other areas designed for pedestrians. These typically are used as ‘sitting out’ areas, where workers can enjoy the sun and eat their sandwiches, and as such usually have seats or benches. For example, Emma Cons Gardens opposite the Old Vic Theatre. This category excludes pedestrianised streets, car parks, servicing areas to buildings, and housing amenity space such as communal courtyards.

Other

Sewage/water works includes extensive sludge drying areas, filter beds, etc.

Disused quarry/gravel pit may be water-filled, but is not necessarily so.

Vacant land is land with no formal land use. This includes many “urban commons” which are used by people for informal recreation and which may be very valuable for nature conservation. If sites have formalised access and management for nature conservation, record as commons or nature reserves as appropriate.

Land reclamation is land recently decontaminated or reclaimed from disuse, which has not yet been redeveloped.

Others could be anything that does not fit any of the above categories, such as airfields or forestry (not wooded commons or woodland nature reserves).

Appendix 4: Recording changes in wildlife habitat

Introduction

When undertaking a comprehensive re-survey of open spaces, using the Greater London Authority Open Space and Habitat Survey format, it is important to collect change statistics as a contribution to monitoring trends in London's biodiversity. This report details the methods employed to do this.

The kinds of site involved.

Three types of site may be involved in changes:

- The first is sites that were covered in both the original survey and the current one. As the methodology used in both surveys was much the same, the habitat composition of each parcel could be compared directly. However this is inaccurate, as this assumes that both the classification of habitats and the estimation of their areas is not subject to error. The likelihood of two surveyors coming up with exactly the same data in the absence of change is low. In order to ensure maximum accuracy, rather than using just the raw figures from the original survey, the surveyor should use her judgement on what the real changes were, based on the original figures, contemporary aerial photographs and evidence in the field on the current survey.
- The second type is sites surveyed currently, but not in the original. This can occur particularly where the qualification criteria for survey differ between the two times. Here the surveyor has only aerial photographs from the time of the original survey and her judgement from evidence in the field to go on. Assessment of habitat composition based on aerial photograph evidence is difficult, but must be done to avoid biasing the results. While it is usually possible to tell the difference between broad habitat types, such as woodland, scrub, rough grassland, close-mown grass and bare ground, it is difficult to get any more detailed information than this. In some cases the surveyor may have enough local knowledge to record whether the grassland may have been acid or neutral, or the woodland may be native or non-native, but this is still an estimate.
- The last type of site is those which showed on the earlier aerial photographs as satisfying the present criteria for survey, but were excluded from the current survey because they have been replaced by hard surfaces, usually due to being developed in the intervening years. The original habitat composition of these sites is estimated from aerial photograph evidence alone, with the same difficulties as outlined above.

The size threshold for survey effectively excludes most private residential gardens and a few other small blocks of open space. The method does not provide an estimate of the changes that take place in such small areas.

Documenting the changes

The changes in an individual survey parcel can be complex. For example, an area of mixed semi-improved grassland and scrub can undergo succession, with some of the grassland being displaced by scrub and some of the scrub being replaced by woodland.

At the same time some other grassland could be lost to built development. Although the changes would be correctly summarised by estimating the original and final habitat compositions of the whole parcel, information on which areas moved between which pairs of habitats would be lost. This information is available to the surveyor, and these procedures collect the full details, as in the first four lines of the following table. Note that only 30% of the parcel is judged to have changed. There is no need to log the composition of the remaining 70%.

For the third category of site new ‘change parcels’ need to be defined. As these represent places where habitat has been lost and what remains does not currently qualify for survey, there is no requirement to bring these into the parcels system for general habitat survey. These are identified in a separate one-up numerical series as shown in the model given in the last three rows of the following table. The final habitat composition of such parcels will be predominated by habitat categories that support little or no wildlife (26, 27, 07 and to a lesser extent 37, 38). The individual percentages in these change parcels should add to 100.

Parcel number	Area of the parcel (ha)	Estimated % of the parcel	Original habitat	Final habitat
22043/13	15.1	11	09	06
		5	06	01
		14	09	27
22C01	3.6	10	25	27
		50	09	27
		40	09	07

Site & Parcel Details	
Site & Parcel no: _____ / _____	Grid ref _____
Site Name _____	Surveyor/s _____
Parcel Name _____	Borough _____
Location _____	Area _____ Ha
Owner / Manager _____	Date _____
Access / View from _____	Time Spent _____ hrs _____ mns
Permission to enter from _____	Weather _____
	Access to: <input type="checkbox"/> all <input type="checkbox"/> part <input type="checkbox"/> none

Open Space Typology				
<i>i. Parks and Gardens</i>	<i>iii. Green Corridors</i>	<i>iv. Outdoor Sports Facilities</i>	<i>v. Amenity</i>	<i>vi. Children and Teenagers</i>
<input type="checkbox"/> park	<input type="checkbox"/> river	<input type="checkbox"/> recreation ground	<input type="checkbox"/> village green	<input type="checkbox"/> play space
<input type="checkbox"/> formal garden	<input type="checkbox"/> canal	<input type="checkbox"/> playing fields	<input type="checkbox"/> hospital	<input type="checkbox"/> adventure playground
<i>ii. Natural and Semi Natural</i>	<input type="checkbox"/> railway cutting	<input type="checkbox"/> golf course	<input type="checkbox"/> educational	<input type="checkbox"/> youth area
<input type="checkbox"/> common	<input type="checkbox"/> railway embankment	<input type="checkbox"/> other recreational	<input type="checkbox"/> back garden land	
<input type="checkbox"/> private woodland	<input type="checkbox"/> disused railway trackbed		<input type="checkbox"/> landscaping around premises	<i>vii. Allotment</i>
<input type="checkbox"/> nature reserve	<input type="checkbox"/> road island/ verge		<input type="checkbox"/> reservoir	<i>vii. Community Garden</i>
	<input type="checkbox"/> walking/ cycling route			<i>vii. City Farm</i>
<i>viii. Cemetery/ Churchyard</i>	<i>ix. Other Urban Fringe</i>	<i>x. Civic Spaces</i>	<i>Other</i>	
	<input type="checkbox"/> equestrian centre	<input type="checkbox"/> civic/ market square	<input type="checkbox"/> sewage/ water works	<input type="checkbox"/> land reclamation
	<input type="checkbox"/> agriculture	<input type="checkbox"/> other hard surfaced area	<input type="checkbox"/> disused quarry/gravel pit	<input type="checkbox"/> other (specify)
	<input type="checkbox"/> nursery / horticulture		<input type="checkbox"/> vacant land	

Planning Status	Ownership	Public Access	Accessibility (Score 0-2)	Level of Use
<input type="checkbox"/> SSSI	<input type="checkbox"/> Local Authority	<input type="checkbox"/> Free	<input type="checkbox"/> Pedestrian	<input type="checkbox"/> Not or hardly used
<input type="checkbox"/> LNR	<input type="checkbox"/> Government / Crown	<input type="checkbox"/> De facto	<input type="checkbox"/> Cycle	<input type="checkbox"/> Moderate numbers
<input type="checkbox"/> SINC or equivalent	<input type="checkbox"/> Health	<input type="checkbox"/> None	<input type="checkbox"/> Public Transport	<input type="checkbox"/> Frequent Use
<input type="checkbox"/> Green Belt	<input type="checkbox"/> Education	<input type="checkbox"/> Restricted (describe):	<input type="checkbox"/> Private Car	
<input type="checkbox"/> MOL	<input type="checkbox"/> Religious		<input type="checkbox"/> Wheelchair	
<input type="checkbox"/> Green Chain	<input type="checkbox"/> Voluntary Organisation			
<input type="checkbox"/> Green Corridor	<input type="checkbox"/> Rail Company	Entry Points	Maintenance & Management	Predominant Recreational Use
<input type="checkbox"/> No open space designation	<input type="checkbox"/> LRT	<input type="checkbox"/> Open access – whole/part of site	<input type="checkbox"/> Good	<input type="checkbox"/> Active
<input type="checkbox"/> Conservation Area	<input type="checkbox"/> Gas Company	<input type="checkbox"/> Limited entry points	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Passive
<input type="checkbox"/> Other protected open space (specify):	<input type="checkbox"/> Water Company	<input type="checkbox"/> Whole surrounded by accessible open space	<input type="checkbox"/> Poor	<input type="checkbox"/> None
	<input type="checkbox"/> Electric Company			
	<input type="checkbox"/> Other Private			

Facilities				
<input type="checkbox"/> Tennis court (specify number)	<input type="checkbox"/> Golf course	<input type="checkbox"/> Play for under 7s	<input type="checkbox"/> Litter bins	<input type="checkbox"/> Historic features
<input type="checkbox"/> Playing Pitch (specify number and type)	<input type="checkbox"/> Pitch & putt / crazy golf	<input type="checkbox"/> Play for 7-13	<input type="checkbox"/> Recycling facilities	<input type="checkbox"/> Art gallery
<input type="checkbox"/> Mini <input type="checkbox"/> All Weather	<input type="checkbox"/> Driving range	<input type="checkbox"/> Play for over 13's	<input type="checkbox"/> Dog litter bins / area	<input type="checkbox"/> Sculptures / monuments
<input type="checkbox"/> Junior <input type="checkbox"/> Natural	<input type="checkbox"/> Changing rooms	<input type="checkbox"/> BMX track	<input type="checkbox"/> Nature trail	<input type="checkbox"/> Public art
<input type="checkbox"/> Full <input type="checkbox"/> Floodlit	<input type="checkbox"/> Motor cross	<input type="checkbox"/> Skateboard area	<input type="checkbox"/> Animal / bird enclosure	<input type="checkbox"/> Other (specify)
<input type="checkbox"/> Cricket pitch	<input type="checkbox"/> Outdoor swimming pool	<input type="checkbox"/> Seats	<input type="checkbox"/> Open air performance area	
<input type="checkbox"/> Athletics track	<input type="checkbox"/> Outdoor paddling pool	<input type="checkbox"/> Operational toilet	<input type="checkbox"/> Car parking	
<input type="checkbox"/> Bowling green	<input type="checkbox"/> Fishing	<input type="checkbox"/> Disabled facilities	<input type="checkbox"/> Horse riding	
	<input type="checkbox"/> Water sports	<input type="checkbox"/> Information	<input type="checkbox"/> Waymarked walking route	
	<input type="checkbox"/> Basketball hoops	<input type="checkbox"/> Refreshments	<input type="checkbox"/> Cycle paths	

Threats and Disturbances (give details of severity etc)	
Invading plants	Vandalism/graffiti
Erosion	Litter/Dog fouling
Motorcycle scrambling	Tipping
Intrusive buildings	Pollution
Boundary treatment	Aircraft noise
Redevelopment	Road/rail noise
Safety and Security	Other

Interest/ Potential for Enhancement	
Recreation	Social & Cultural
Structural	Heritage
Amenity	Health
Ecology	Accessibility
Education	Other

Changes since last survey	
<input type="checkbox"/> No apparent change since last survey	Geology, topography, aspect, drainage and soil
<input type="checkbox"/> Part not previously surveyed	
<input type="checkbox"/> All not previously surveyed	

- Significant
- Minor
- Error in last survey

Contacts /Other's Information / History and succession

Biodiversity

Site and parcel no:	/	Date:
---------------------	---	-------

Habitats (%)

- | | | |
|--|---|--|
| <input type="checkbox"/> 01 Native broadleaved woodland | <input type="checkbox"/> 08 Acid grassland | <input type="checkbox"/> 16 Bog |
| <input type="checkbox"/> 02 Non- native broadleaved woodland | <input type="checkbox"/> 09 Neutral grassland (semi-improved) | <input type="checkbox"/> 17 Reedswamp |
| <input type="checkbox"/> 03 Coniferous woodland | <input type="checkbox"/> 35 Neutral grassland (herb rich) | <input type="checkbox"/> 40 Typha etc. swamp |
| <input type="checkbox"/> 37 Scattered Trees | <input type="checkbox"/> 10 Basic grassland | <input type="checkbox"/> 18 Wet marginal vegetation |
| <input type="checkbox"/> 05 Recently felled woodland | <input type="checkbox"/> 11 Improved / reseeded agric grassland | <input type="checkbox"/> 19 Fen carr (woodland / scrub over fen) |
| <input type="checkbox"/> 06 Scrub | <input type="checkbox"/> 07 Amenity grassland | <input type="checkbox"/> 20 Standing water (includes canals) |
| <input type="checkbox"/> 38 Planted shrubbery | <input type="checkbox"/> 12 Ruderal or ephemeral | <input type="checkbox"/> 21 Ditches (water filled) |
| <input type="checkbox"/> 25 Native hedge | <input type="checkbox"/> 33 Roughland (intimate mix of 9, 14 & 6) | <input type="checkbox"/> 22 Running water (rivers & streams) |
| <input type="checkbox"/> 34 Non-native hedge | <input type="checkbox"/> 13 Bracken | <input type="checkbox"/> 23 Intertidal mud, sand, shingle etc |
| <input type="checkbox"/> 31 Orchard | <input type="checkbox"/> 14 tall herbs | <input type="checkbox"/> 24 Saltmarsh |
| <input type="checkbox"/> 36 Vegetated walls, tombstones etc | <input type="checkbox"/> 15 Heathland | <input type="checkbox"/> 30 habitat information not available |
| <input type="checkbox"/> 26 Bare soil and rock | <input type="checkbox"/> 39 Allotments (active) | <input type="checkbox"/> 29 Other |
| <input type="checkbox"/> 27 Bare artificial habitat | <input type="checkbox"/> 28 Arable | |

<input type="checkbox"/> Treeline w/out hedge	<input type="checkbox"/> Hedge w/treeline	<input type="checkbox"/> grazed	<input type="checkbox"/> Frequently mown	<input type="checkbox"/> Floating vegetation	<input type="checkbox"/> Submerged vegetation
<input type="checkbox"/> Even-aged plantation	<input type="checkbox"/> Ancient woodland	<input type="checkbox"/> Infrequently mown	<input type="checkbox"/> Cuttings removed Y/N	<input type="checkbox"/> Emergent vegetation	<input type="checkbox"/> saline <input type="checkbox"/> tidal
<input type="checkbox"/> Coppice	<input type="checkbox"/> Dead wood	<input type="checkbox"/> Unmanaged grassland	<input type="checkbox"/> Ridge & furrow	<input type="checkbox"/> Naturally formed river bank	
<input type="checkbox"/> Flush	<input type="checkbox"/> wet	<input type="checkbox"/> Wood shrub layer	<input type="checkbox"/> flush <input type="checkbox"/> wet <input type="checkbox"/> Sand/clay bank		
				Trophic status:	
				<input type="checkbox"/> eu-	<input type="checkbox"/> meso-
				<input type="checkbox"/> oligo-	<input type="checkbox"/> dys-

Interest			Species Richness		
<input type="checkbox"/> Invertebrate	<input type="checkbox"/> Bird	<input type="checkbox"/> Geology	<input type="checkbox"/> Poor	<input type="checkbox"/> Average / rich	
<input type="checkbox"/> Fish	<input type="checkbox"/> Higher plant	<input type="checkbox"/> Other	<input type="checkbox"/> Poor / average	<input type="checkbox"/> Rich	
<input type="checkbox"/> Amphibian	<input type="checkbox"/> Bryophyte		<input type="checkbox"/> Average	<input type="checkbox"/> Not known	
<input type="checkbox"/> Reptile	<input type="checkbox"/> Lichen				
<input type="checkbox"/> Mammal	<input type="checkbox"/> Fungi				

Nature Conservation Value (surveyor's personal opinion)

NOTES / SKETCH MAP Record dominant and notable plant species, birds, butterflies etc.

Figure 4: London Borough of Lewisham
Strategy Map

Job title
Review of SINCs
TEC Job no. 141558

Client
Lewisham LB

Drawing title
LONDON BOROUGH
OF LEWISHAM: STRATEGY MAP

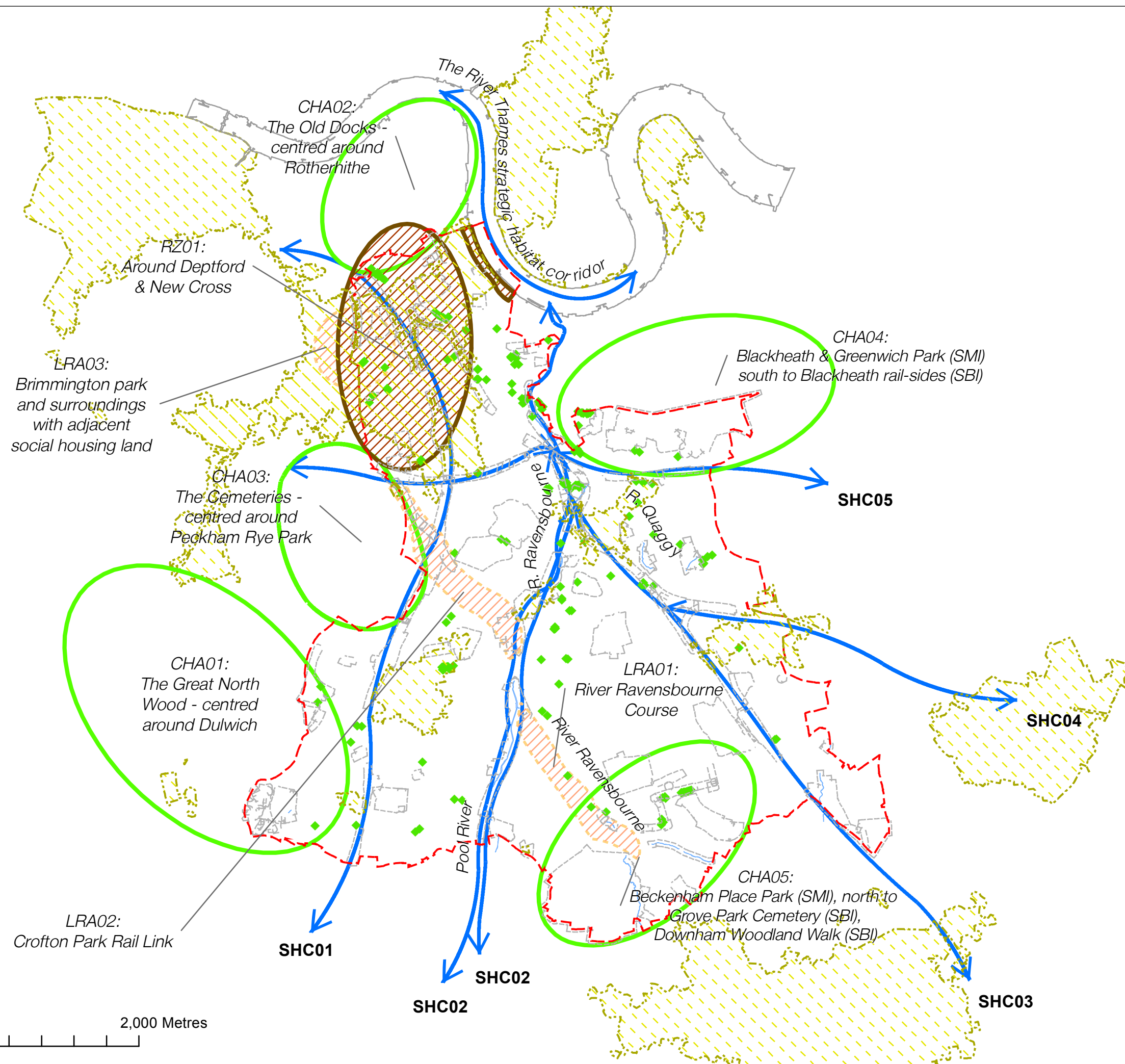
Section: N/A Scale (at A3) 1:200,000

Date of survey 2015

Surveyor Rosie Whicheloe

Drawn JD Checked RW

Approved RW Date 11/05/2016

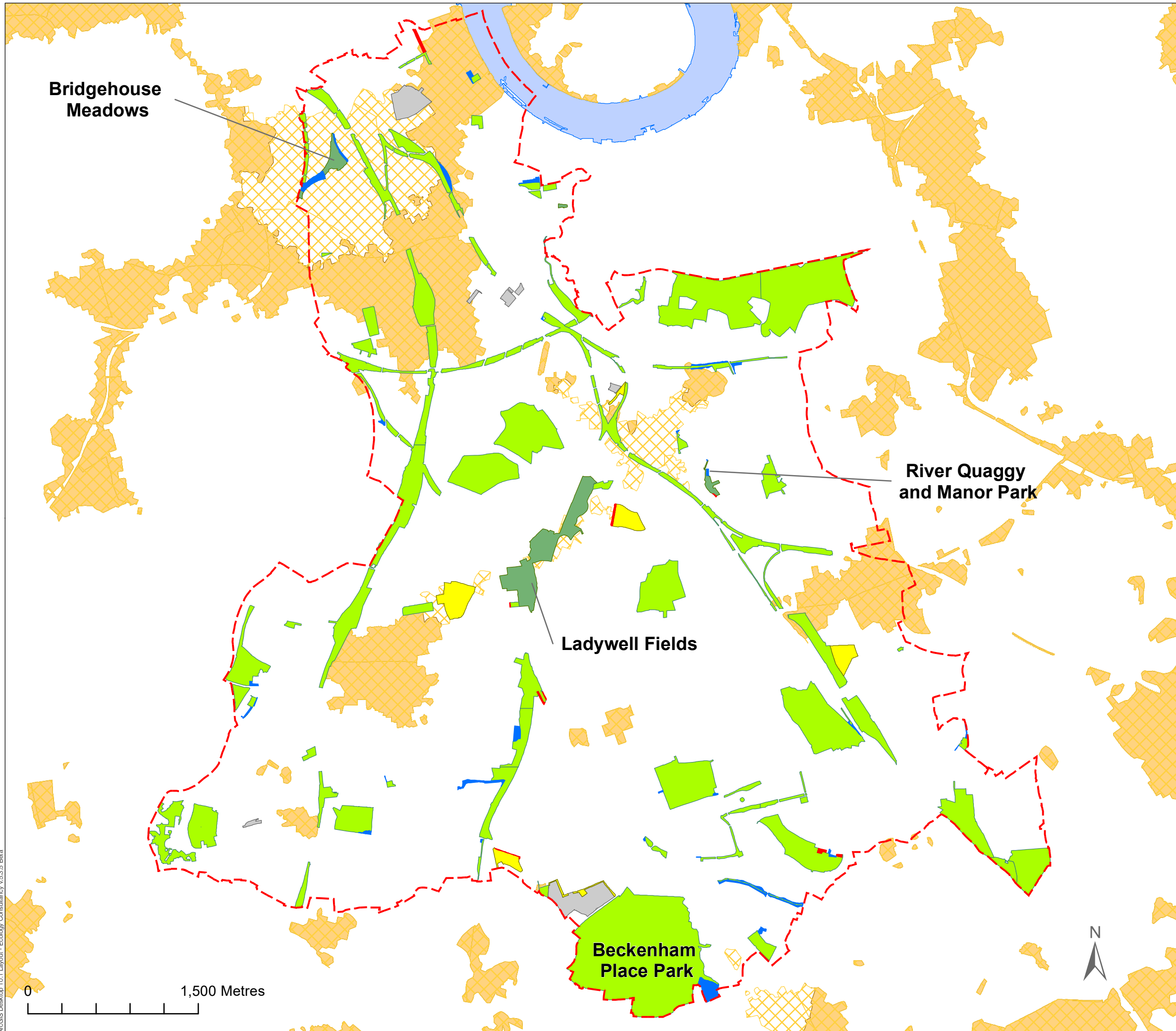


KEY

- London Borough of Lewisham
- Living Roof
- Existing SINCs
- River Thames
- Strategic Habitat Corridor (SHC)
- Core Habitat Area CHA
- Restoration Zone (RZ)
- Local Restoration Area (LRA)
- Areas Of Deficiency
- SMI Site of Metropolitan Importance
- SBI Site of Borough Importance
- River courses

0 2,000 Metres

Figure 5: London Borough of Lewisham
SINC Recommendations



Job title
Review of SINC
TEC Job no. 141558

Client
Lewisham LB

Drawing title
SINC RECOMMENDATIONS

Section:	N/A	Scale (at A3)	1:33,000
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Date of survey
2015

Surveyor
Rosie Whicheloe

Drawn	JB	Checked	GS
-------	----	---------	----

Approved	RW	Date	22/12/2016
----------	----	------	------------

KEY

-  London Borough of Lewisham
-  Existing SINC (no status update)
-  Existing SINC (upgrade to borough)
-  New areas added to SINC
-  Proposed SLINC
-  Areas to be removed from SINC
-  Site does not meet SINC criteria
-  Updated Areas of Deficiency following review of SINC
-  Areas removed from Areas of Deficiency due to changes to SINC
-  River Thames

SINC'S THAT INFLUENCE AREAS OF DEFICIENCY

Bridgehouse Meadows: upgraded from Local to Borough SINC, boundary extended, new access

Ladywell Fields : upgraded from Local to Borough SINC

River Quaggy and Manor Park: upgraded from Local to Borough SINC, boundary modified, new access

Beckenham Place Park: boundary extended



Ecology Consultancy

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