

Peckham and Nunhead Area Action Plan

Development Plan Document

CD11 - Peckham and Nunhead AAP

March 2013

Sites of Importance for Nature Conservation background paper

Fairer future ✓
Delivering our promises



Future Peckham

CONTENTS

Section	Page
1. Introduction	3
2. Policy background	3
3. Research and evidence	7
4. Developing of the AAP	12
5. Our strategy	15
6. Implementation	28
7. References	28

Appendices

Appendix 1	Map of SINCs in Southwark
Appendix 2	GLA map of area of deficiency in access to nature
Appendix 3	LB Southwark map of natural greenspace deficiency
Appendix 4	London Wildlife Sites Board letter
Appendix 5	Surrey Canal Walk ecological assessment
Appendix 6	Jowett Street Park phase 1 habitat survey
Appendix 7	Kirkwood Road management plan 2007
Appendix 8	Kirkwood Road Nature Garden Phase 1 habitat survey
Appendix 9	Surrey Canal Walk Phase 1 habitat survey
Appendix 10	Warwick Gardens ecological assessment
Appendix 11	Warwick Gardens Phase 1 habitat survey

1. INTRODUCTION

- 1.1 This background paper has been prepared to provide further information on the Peckham and Nunhead Area Action Plan (AAP). The document explains our approach to protecting Sites of Importance for Nature Conservation (SINCs) in Peckham and Nunhead. The paper sets out which sites we are proposing as new SINCs and why. The paper also demonstrates how this has been carried out in conformity with the guidance in the Mayor's Biodiversity Strategy (2002) (CDR17).
- 1.2 The Sites of Importance for Nature Conservation background paper is split into the following sections:
- Section 1 provides an introduction.
 - Section 2 sets out the policy background.
 - Section 3 sets out the research and evidence used to inform our approach.
 - Section 4 provides an explanation of how our approach has been developed.
 - Section 5 sets out our strategy for protecting and improving SINCs.
 - Section 6 sets out how we will implement our strategy.
- 1.3 Throughout this background paper we have referenced the core documents (CDs) that have informed the AAP and a full list of these documents is in section 7 of this paper.

2. POLICY BACKGROUND

- 2.1 The policy context for Sites of Importance for Nature Conservation (SINCs) in Southwark is set out below.

NATIONAL

National Planning Policy Framework (NPPF) (March 2012) (CDN1)

- 2.2 Since the Core Strategy was adopted, the government has published its National Planning Policy Framework. It sets out the government's planning policies for England and how these are expected to be applied. It consolidates the previous Planning Policy Statements (PPS) and Planning Policy Guidance (PPG) into a single, concise document covering all major forms of development proposals handled by local authorities. The NPPF sets out the Government's economic, environmental and social planning policies. The policies apply to the preparation of local and neighbourhood plans, and to development management decisions.
- 2.3 In terms of biodiversity, the Government's key objective is to ensure that planning contributes to and enhances the natural and local environment by recognising the wider benefits of ecosystem services

and minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity. This includes the establishment of coherent ecological networks that are more resilient to current and future pressures.

- 2.4 The NPPF (para 113) requires local planning authorities to set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged. The NPPF states that distinctions should be made between the hierarchy of international, national and locally designated sites, so that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks.
- 2.5 Paragraph 117 of the NPPF requires Local planning authorities to 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. The NPPF states that to minimise impacts on biodiversity and geodiversity, planning policies should:
- plan for biodiversity at a landscape-scale across local authority boundaries;
 - identify and map components of the local ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them and areas identified by local partnerships for habitat restoration or creation;
 - promote 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 identify suitable indicators for monitoring biodiversity in the plan;
 - aim to prevent harm to geological conservation interests;
 - and where Nature Improvement Areas are identified in Local Plans, consider specifying the types of development that may be appropriate in these Areas.
- 2.6 On a broader scale, paragraph 99 of the NPPF also states that Local Plans should take account of climate change over the longer term, including factors such as changes to biodiversity and landscape. New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure.

REGIONAL

The London Plan (2011) (CDR1)

- 2.7 Policy 2.18: Green Infrastructure: the network of open and green spaces states that the Mayor will work with all relevant strategic partners to protect, promote, expand and manage the extent and quality of, and access to, London's network of green infrastructure. This multifunctional network will secure benefits including biodiversity.
- 2.8 Local planning authorities are required to link the delivery of local biodiversity action plans to open space strategies and ensure that through DPD policies green infrastructure needs are planned and managed to realise the current and potential value of open space to communities and to support delivery of the widest range of linked environmental and social benefits.
- 2.9 Policy 7.19 Biodiversity and access to nature states that the Mayor will work with all relevant partners to ensure a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity in support of the Mayor's Biodiversity Strategy. This means planning for nature from the beginning of the development process and taking opportunities for positive gains for nature through the layout, design and materials of development proposals and appropriate biodiversity action plans.
- 2.10 Local planning authorities are required to;
- a. use the procedures in the Mayor's Biodiversity Strategy to identify and secure the appropriate management of sites of borough and local importance for nature conservation in consultation with the London Wildlife Sites Board.
 - b. identify areas deficient in accessible wildlife sites and seek opportunities to address them
 - c. include policies and proposals for the protection of protected/priority species and habitats and the enhancement of their populations and their extent via appropriate BAP targets
 - d. ensure sites of European or National Nature Conservation Importance are clearly identified.
 - e. 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.
- 2.11 London contains numerous sites of importance for nature conservation. The Mayor expects London's biodiversity and natural heritage to be conserved and enhanced for the benefit of current and future Londoners. These sites form an integral part of London's green infrastructure and should be linked to other parts of the network to enhance its value.

The Mayor's Biodiversity Strategy (2002) (CDR17)

- 2.12 The Mayor's Biodiversity Strategy sets out the criteria and procedures for identifying land of importance for London's biodiversity for protection in LDFs and identifying areas of deficiency in access to nature. The

land of importance includes Sites of Metropolitan Importance (which include all biological Sites of Special Scientific Interest and further areas of regional importance), sites of Borough and Local Importance, Green Corridors and other local designations. Protecting this framework of strategic importance for biodiversity serves to protect the significant areas of BAP priority habitat in London and most priority species.

LOCAL

Saved Southwark Plan (2007) (CDL2)

- 2.13 Strategic Policy 15 Open space and biodiversity requires all developments to, where appropriate, create, preserve and enhance biodiversity.
- 2.14 Policy 3.28 Biodiversity sets out how biodiversity will be taken into account in the determination of all planning applications and will encourage the inclusion in developments of features which enhance biodiversity, requiring an ecological assessment where relevant. The policy also states that Developments will not be permitted which would damage the nature conservation value of sites of importance for nature conservation (SINCs) and where, exceptionally, such developments are permitted, the Council will seek mitigation and/or compensation for the damage to biodiversity.
- 2.15 Where new sites of importance for nature conservation and local nature reserves are identified, these sites will be afforded protection under policy 3.28 and policy 3.27, Other Open Spaces. Appendix 14 of the Southwark Plan sets out a schedule of Sites of importance for nature conservation in the borough.

Core Strategy (April 2011) (CDL1)

- 2.16 Strategic targets objective 2C states that the borough will offer more housing and a choice of housing types, including more family housing.
- 2.17 Strategic objective 2B states that new developments will be built to high environmental standards to reduce the impact on the environment and adapt to climate change, focussing on flood risk, waste management, biodiversity and water quality.
- 2.18 Strategic objective 2F states that open spaces and biodiversity will be protected, made more accessible and improved.
- 2.19 Core Strategy strategic policy 11, open spaces and wildlife, sets out how development will be required to protect and improve habitats for a variety of wildlife. This will include continuing to protect important open spaces from inappropriate development. These will sites of importance for nature conservation (SINCs).

2.20 The Core Strategy also states that SINCs are identified upon the proposals map; more may be identified through future planning documents.

Southwark Biodiversity Action plan (2012) (CDEN2)

2.21 Southwark Council delivered the first local biodiversity action plan (BAP) for the borough between 2006 and 2010. The Biodiversity Action Plan (2012) is the second BAP for Southwark and follows on from the first Biodiversity Action Plan "*Work for Wildlife*". The plan will build on previous work and focus on 5 themes to address the challenges facing our natural resources and the urban environment. The new BAP moves away from individual habitat and species action plans and takes a theme based approach to conserving, managing, and promoting biodiversity in Southwark.

2.22 The 5 Themes of the BAP are:

- Theme 1: Wildlife and Ecosystem services
- Theme 2: The Urban Forest
- Theme 3: The Built Environment
- Theme 4: Climate change and sustainability
- Theme 5: Connecting with nature

2.23 The BAP sets out a number of recommendations relating to SINC sites in the borough. For example, Theme 1, Wildlife and Ecosystems Services sets out an objective to produce management plans for all SINCs in Southwark's management. Other objectives under this theme also include maintaining a baseline of ecological data and ensuring no net loss of biodiversity. The BAP also identifies an action under theme 1 to designate new Local SINC sites in line with policies in area action plans.

3. RESEARCH AND EVIDENCE

3.1 This section sets out the research and evidence used to inform our strategy for protecting Sites of Importance for Nature Conservation (SINCs) in the AAP. It explains what a SINC is and the different types of SINCS.

3.2 What are sites of importance for nature conservation?

3.2.1 SINCS are open spaces considered very important for nature conservation due to their wildlife and biodiversity value. They provide opportunities for people to access and experience nature as well as help protect important plants and animals. A map showing all of the existing SINCS in Southwark and the new SINCS proposed through the AAP is shown in appendix 1 of this document.

3.2.2 For London there are three types of SINCS as defined in the Mayor's Biodiversity Strategy (CDR17) (appendix 1 of the strategy). The appendix updates the previous adopted policy of the London Ecology Committee, which described the policy, criteria and procedures used to identify and recommend land to be protected because of its nature conservation (biodiversity or ecological) value. The three types of SINCS are chosen on the basis of their importance to a particular defined geographic area. The three types referred to by the strategy are summarised in the following sub-sections. We also set out Southwark's SINCS for each of the typologies. These are all already protected through saved Southwark Plan policies (CDL2) and Canada Water AAP and are designated on our adopted policies map.

3.3 Sites of Metropolitan Importance

3.3.1 Sites of Metropolitan Importance for Nature Conservation are sites which contain the best examples of London's habitats, sites which contain particularly rare species, rare assemblages of species or important populations of species, or sites which are of particular significance within otherwise heavily built-up areas of London.

3.3.2 They are of the highest priority for protection. The identification and protection of Metropolitan Sites is necessary, not only to support a significant proportion of London's wildlife, but also to provide opportunities for people to have contact with the natural environment.

3.3.3 The best examples of London's habitats include the main variants of each major habitat type, for example hornbeam woodland, wet heathland, or chalk downland. Habitats typical of urban areas are also included, e.g. various types of abandoned land colonised by nature ('wasteland' or 'unofficial countryside'). Those habitats which are particularly rare in London may have all or most of their examples selected as Metropolitan Sites. Chalk grassland is a rare habitat in London, with just over 300 hectares on the chalk hills around the southern edge of London, in Croydon, Bromley and Sutton, with smaller outposts in Hillingdon.

3.3.4 Sites of Metropolitan Importance include not only the best examples of each habitat type, but also areas which are outstanding because of their assemblage of habitats, for example the Crane corridor, which contains the River Crane, reservoirs, pasture, woodland and heathland.

3.3.5 A small number of sites are selected which are of particular significance within heavily built up areas of London. Although these are of lesser intrinsic quality than those sites selected as the best examples of habitats on a London-wide basis they are outstanding oases and provide the opportunity for enjoyment of nature in extensive built environments. Examples include St James's Park, Nunhead Cemetery, Camley Street Natural Park and Sydenham Hill Woods. In some cases (e.g. inner London parks) this is the primary reason for their selection.

For sites of higher intrinsic interest it may only be a contributory factor. Only those sites that provide a significant contribution to the ecology of an area are identified.

- 3.3.6 Should one of these sites be lost or damaged, something would be lost which exists in a very few other places in London. Management of these sites should as a first priority seek to maintain and enhance their interest, but use by the public for education and passive recreation should be encouraged unless these are inconsistent with nature conservation.
- 3.3.7 The following SINCS of metropolitan Importance have been designated in Southwark:

Metropolitan SINCS within the PNAAP Boundary	Area (ha)
Nunhead Cemetery	20.16
Other Metropolitan SINCS in Southwark	
Sydenham Hill Wood and Dulwich Wood	28.11
River Thames	-

3.4 Sites of Borough Importance

- 3.4.1 These are sites which 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.
- 3.4.2 Since 1988 borough sites have been divided, on the basis of their quality, into two grades, but it must be stressed that they are all important on a borough-wide view.
- 3.4.3 In defining Sites of Borough Importance, the search is not confined rigidly to borough boundaries; these are used for convenience of defining areas substantially smaller than the whole of Greater London, and the needs of neighbouring boroughs should be taken into account. In the same way as for Sites of Metropolitan Importance, parts of some boroughs are more heavily built-up and some borough sites are chosen there as oases providing the opportunity for enjoyment of nature in extensive built environments.
- 3.4.4 The borough is an appropriate search area in relation to the National Planning Policy Framework (NPPF) (CDN1) which, in paragraph 113, states that local plans should identify, and map components of the local

ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity.

3.4.5 Since essentially a comparison within a given borough is made when choosing Sites of Borough Importance, there is considerable variation in quality between those for different boroughs; for example, those designated in Barnet will frequently be of higher intrinsic quality than those in Hammersmith and Fulham, a borough comparatively deficient in wildlife habitat. Only those sites that provide a significant contribution to the ecology of an area are identified.

3.4.6 The following SINCS of Borough Importance have already been designated in Southwark:

Borough SINCS within the PNAAP Boundary	Grade	Area
One Tree Hill	1	6.92
Peckham Rye Park	1	41.6
Aquarius Golf Course	2	0.82
Brenchley Gardens	2	3.63
Camberwell New Cemetery	2	20.09
Gypsy Hill Railway Cutting	2	1.25
Nunhead Railway Embankments & Kirkwood Nature Garden	2	5.2
Sunray Gardens	2	1.58
Other Borough SINCS in Southwark		
Camberwell Old Cemetery	1	11.61
Canada and Surrey Waters	1	3.87
Dulwich and Sydenham Hill Golf Course	1	33.79
Dulwich Park	1	29.58
Dulwich Upper Wood	1	2.14
Lavender Pond Nature Park	1	0.73
London Wildlife Trust's Centre for Wildlife Gardening	1	0.22
Russia Dock Woodland	1	13.3
Belair Park	2	9.98
Burgess Park	2	48
Countisbury House Lawns	2	0.18
Dawson's Hill	2	2.68
Dulwich Mill Pond	2	0.86
Greenland Dock	2	11.31
Grove Park Cutting	2	10.64
Gypsy Hill Railway Cutting	2	1.25
Hitherwood	2	0.37
James Allen's Girl's School Botany Garden	2	0.37
Lettsom Gardens	2	0.54
South Bermondsey Railway Embankments	2	2.29
Southwark Park	2	25.3
Sunray Gardens	2	1.58
Surrey Docks Farm	2	0.88

Borough SINCS within the PNAAP Boundary	Grade	Area
Sydenham Hill and West Dulwich Railsides	2	9.86
Walworth Garden Farm	2	0.17

3.5 Sites of Local Importance

3.5.1 A Site of Local Importance is one which is, or may be, of particular value to people nearby (such as residents or schools). These sites may already be used for nature study or be run by management committees mainly composed of local people. Where a Site of Metropolitan or Borough Importance may be so enjoyed it acts as a Local site, but further sites are given this designation in recognition of their role. This local importance means that these sites also deserve protection in planning.

3.5.2 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; such sites need not lie in the Area of Deficiency, but should be as near to it as possible. Where no such sites are available, opportunities should be taken to provide them by habitat enhancement or creation, by negotiating access and management agreements, or by direct acquisition. Only those sites that provide a significant contribution to the ecology of an area are identified.

3.5.3 The following SINCS of local Importance have already been designated in Southwark through the saved Southwark Plan (CDL2) and the Canada Water AAP.

Local SINCS within the PNAAP Boundary	Area
Bird-in-Bush Park	0.45
Goldsmiths Road Nature Garden	0.09
McDermott Road Nature Garden	0.13
Consort Park	0.34
Other local SINCS in Southwark	
Aspinden Road Nature Garden	0.04
Bellenden Road Tree Nursery	0.07
Benhill Road Nature Garden	0.21
Deal Porters Walk	0.58
Durands Wharf	0.97
Dickens Fields	1.01
Dog Kennel Hill	1.29
Gallywall Road Nature Garden	0.08
Geraldine Mary Harmsworth Park	6.17
Herne Hill Stadium Meadow	8.3
Leathermarket Gardens	1.23
Kings Stairs Gardens	3.46

Local SINCS within the PNAAP Boundary	Area
Lucas Gardens	1.72
Nairne Grove Nature Garden	0.11
Northfield House Community Wildlife Garden	0.17
Plough Lane Pond	0.04
Snowsfield Primary School Nature Garden	0.13
St Mary Magdalene Churchyard	0.7
St Mary's Gardens, Rotherhithe	0.23
Surrey Gardens	1.56
Surrey Square	1.22
Tabard Gardens	0.91
Varcoe Road Nature Garden	0.19
Victory Park and Elba Place Nature Garden	0.5

4. DEVELOPMENT OF THE AAP

4.1 This section sets out how the section of policy 19 on SINCS in the AAP has been developed: from the vision stage through to the publication/submission version taking into account the key assessments and consultation stages. We set out the chronological development of each of the AAP policies and the justification for the final strategy.

Vision paper (March 2008) (CD15)

4.2 The vision paper identified open space and biodiversity as an issue the area action plan would need look at.

Issues and options (2009) (CD16)

4.3 The issues and options paper set out how open spaces in Peckham and Nunhead provide habitats for wildlife and identified the need for us to make sure we protect these through the AAP.

4.4 The issues and options paper looked at a number of options for different levels of growth. The paper identified that the higher growth options would allow for more improvements to open spaces and would mean more street trees and more green links between open spaces could be created.

Towards a preferred option (2011) (CD17)

4.5 The Towards a Preferred option identified the opportunity to use the potential for enhanced biodiversity value of existing open spaces and cemeteries

4.6 Policy 25 of the Towards a Preferred option document set out we would protect existing sites of importance for nature conservation from

inappropriate development and designate two new sites of importance for nature conservation at Surrey Canal Walk and Warwick Gardens.

Preferred Option (2012) (CD18)

- 4.7 The Preferred option report identified the opportunity for development to maximise the potential for enhancing the biodiversity value of existing open spaces and cemeteries.
- 4.8 Policy 19 of the Preferred option document set out we would continue to protect sites of importance for nature conservation from inappropriate development and ensure that development would not result in a loss of biodiversity.
- 4.9 We identified 12 SINC's in the action area and we proposed to designate three new sites of importance of nature conservation as set out within the character area policies in section 5 of the AAP. These were Surrey Canal Walk, Warwick Gardens and Kirkwood Road Nature Garden.

Core Strategy and saved Southwark Plan

- 4.10 The Core Strategy (CDL1) and the saved Southwark Plan (CDL2) set out our borough-wide policies for taking biodiversity into account and protecting SINC's.
- 4.11 Core Strategy strategic policy 11 sets out how we will continue to protect important open spaces from inappropriate development. These will include parks, allotments, sports grounds, green chains, sites of importance for nature conservation (SINC's) and cemeteries.
- 4.12 Saved Southwark Plan policy 3.28 sets out how we will take biodiversity into account in the determination of all planning applications and will encourage the inclusion in developments of features which enhance biodiversity. Developments will not be permitted which would damage the nature conservation value of sites of importance for nature conservation (SINC's) and local nature reserves (LNRs) and/or damage habitats, populations of protected species or priority habitats/species identified in the United Kingdom, London or the Southwark biodiversity action plan.
- 4.13 Both the Core Strategy and the saved Southwark Plan form part of our development plan. The AAP will also become part of the development plan. The AAP should generally be consistent with the Core Strategy policies but can make amendments to borough-wide policies if required to take into account local issues. In the case of SINC's the AAP does not alter the Core Strategy approach for Peckham and Nunhead, and so policy 11 of the Core Strategy is used alongside policy 19 of the AAP.

- 4.14 Within AAPs we can also introduce new land use designations. At present the list of protected SINCS is set out in appendix 14 of the saved Southwark Plan and the boundaries are shown on the adopted policies map (CDL3). The new boundaries proposed through the AAP will be shown on the adopted policies map once the AAP is adopted. These will be additional to those in the Southwark Plan. We will update this list once the AAP is adopted and as part of our preparation of our Local Plan. The boundaries are shown in our schedule of proposed changed to the adopted policies map (CD20).

Sustainability appraisal

- 4.15 The sustainability appraisal has been used to help inform the preparation of the draft submission policies. At the issues and options stage we identified the need to protect open spaces and improve biodiversity as one of the sustainability issues. The interim SA identified that that could be more opportunities for improving open spaces and biodiversity through the higher growth option but there would also be more pressure on the open spaces.
- 4.16 At the towards a preferred option stage the interim SA identified that overall there would be a positive impact on enhancing open spaces, green corridors and biodiversity. The interim SA identified that policy 28 on SINCS would overall have a positive impact, with a major positive impact on many of the indicators.
- 4.17 Similarly at the preferred option policy 19 on open spaces and SINCS had an overall positive impact on the majority of the sustainability indicators, with a major positive impact on many of them.
- 4.18 As the policy has changed very little from the preferred option to the final version, the final publication/submission policy 19 scored positively against almost all the objectives. In particular it scored very positively when assessed against the following sustainable development objectives:
- SDO3 – To improve the health of the population.
 - SDO 5- to promote social inclusion, equality, diversity and community cohesion.
 - SDO13 – To protect and enhance open spaces, green corridors and biodiversity.
 - SDO17 - To provide the necessary infrastructure to support existing and future development.

Equalities

- 4.19 The equalities analysis (CD3) identified various considerations that needed to be taken into account in preparing the draft publication/submission policies. We carried our equalities analysis at every stage of the plan preparation and at every stage the policies and

approach to SINC were identified as having positive impact of the different groups

- 4.20 The Equalities Analysis at publication/submission version stage identified that protecting existing SINC and designating four new SINC will have a positive impact on all nine protected characteristic groups. It identified that in particular the policy may have a positive impact on the elderly and young families who cannot travel further for access to high quality open spaces. Improving biodiversity may also have educational benefits for children and young people.

Consultation

- 4.21 As set out in the Mayor's Biodiversity Strategy it is equally important that the judgment of the Local Authority is subject to additional consideration by a wide range of interested parties. Through the preparation of the preferred options Core Strategy and through the towards a preferred option and preferred option stages of the Peckham and Nunhead AAP we have carried out widespread consultation with individuals and organisations. This is set out in more detail in our consultation report that accompanies the adopted Core Strategy and the AAP consultation report
- 4.22 As part of the preferred options consultation of the Core Strategy we consulted on designating new SINC including, Surrey Canal Walk and Warwick Gardens in Peckham and Nunhead. We decided not to take this forward in the final Core Strategy. The consultation included a map and a schedule of sites recommended for protection. Also as part of the Peckham and Nunhead AAP we set out the possible option of designating these sites as SINC at the towards a preferred options stage. At the preferred option stage of the Peckham and Nunhead AAP we set out the possible option of designating Surrey Canal Walk, Warwick gardens and Kirkwood Road nature garden as SINC. The publication/submission version stage we have also identified Jowett Street Park as a SINC based on our further evidence.

5. THE STRATEGY

- 5.1 Policy 19 of the AAP sets out our strategy for protecting and improving our sites of importance for nature conservation. We will do this by protecting sites of importance for nature conservation from inappropriate development and ensuring that development does not result in a loss of biodiversity. We will require new development to improve the overall greenness of the area, through planting street trees, creating living roofs and walls and providing habitats for wildlife which increase biodiversity.

- 5.2 Our character area policies set out further detail on where new SINCS are proposed in Peckham and Nunhead. We have identified four additional SINCS sites for protection:
- Jowett Street park
 - Warwick Gardens
 - Surrey Canal Walk
 - Kirkwood Road Nature Garden

- 5.3 The first part of the following section explains the justification for our approach, setting out the procedures we followed for identifying new SINCS and the links with areas deficient in access to nature. The second part of this section explains our justification for each of the four proposed SINCS.

5.4 Justification for our approach

Policy, criteria and procedures for identifying SINCS

- 5.4.1 As set out in section 3, appendix 1 of the Mayor's Biodiversity strategy (2002) (CDR17) updates the previous adopted policy of the London Ecology committee, which described the policy, criteria and procedures used to identify and recommend land to be protected because of its nature conservation (biological or ecological) value. The previous policy report was adopted by the London ecology committee on the 25th January 1994 and by the London Planning Advisory Committee for use in the review of Unitary Development Plans in March 1995. As a result, this SINCS schedule was included in the adopted Southwark Plan, 2007. Three additional SINCS have been added to this schedule through the adoption of the Canada Water AAP.

- 5.4.2 In accordance with the requirements set out in the Mayor's biodiversity strategy we have collected survey information to inform our reasons for choosing these four sites as new SINCS.

- Our open spaces strategy (CDEN1) has identified this area as an area in need of improvements to the quality of open spaces. Southwark's Ecology Officer identified the sites as areas of potential higher nature conservation value.
- We used recommendations from our Ecology Officer as well as advice from other local stakeholders to determine whether a Phase 1 Habitat survey should be carried out on the sites. The Phase 1 habitat survey identifies the habitats that are contained within or make up a site, and the key plant species for each of those habitat types. It also provides target notes on important aspects of the site, for example, the presence of rare plants or animals, or a special habitat feature such as an ancient hedgerow.
- Phase 1 habitat surveys were carried out for Jowett Street Park, Kirkwood Road Nature Garden, Surrey Canal Walk and Warwick Gardens in 2012 by The Ecology Consultancy Ltd. These surveys confirmed that the sites had nature conservation value

of local importance. These are attached as appendices 5, 7 and 10.

5.4.3 Having assembled all the survey information, as per the Mayor's Biodiversity strategy we identified appropriate criteria for assessing sites in an urban context. The criteria used were based on those recommended in the Mayor's Biodiversity Strategy (Figure 1) which closely corresponds to those used by the Nature Conservancy Council and its successor bodies.

Figure 1: Criteria for identifying new SINC's (adapted from the Mayor's Biodiversity strategy, 2002)

Criteria	Explanation (taken from the Mayor's Biodiversity strategy)
Representation.	The best examples of each major habitat type are selected. These include typical urban habitats such as abandoned land colonised by nature (.wasteland.). Where a habitat is not extensive in the search area it will be appropriate to conserve all or most of it, whereas where it is more extensive a smaller percentage will be conserved.
Habitat rarity	The presence of a rare habitat makes a site important, because the loss of, or damage to, only a few sites threatens the survival of the habitat in the search area.
Species rarity.	The presence of a rare species makes a site important in a way that parallels rare habitat.
Habitat richness.	Protecting a site with a rich selection of habitat types not only conserves those habitats, but also the wide range of organisms that live within them and the species that require more than one habitat type for their survival. Rich sites also afford more opportunities for enjoyment and educational use.
Species richness.	Generally, sites that are rich in species are to be preferred, as this permits the conservation of a correspondingly large number of species. However, some habitats, such as reed beds, heaths and acid woodlands, are intrinsically relatively poor in species.
Size	Large sites are usually more important than small sites. They may allow for species with special area requirements. Large sites may be less vulnerable to small-scale disturbance, as recovery is sometimes possible from the undisturbed remainder. They are also more able to withstand visitors, by diluting their pressure within a wider space. Size is also related to the richness of habitat and species, and so is used

	as a surrogate for these other two criteria where information is incomplete.
Important populations of species	Some sites are important because they hold a large proportion of the population of a species for the search area (eg waterfowl populations or colonial birds such as herons or jackdaws).
Ancient character.	Some sites have valuable ecological characteristics derived from long periods of traditional management, or even a continuity in time to the woodlands and wetlands which occupied the London area before agriculture. Ancient woodlands, old parkland trees and traditionally managed grasslands tend to have typical species that are rare elsewhere. These habitats deserve protection also because of the ease with which they are damaged by changes in management, ploughing, fertiliser and herbicide treatment.
Recreatability	Habitats vary in the ease with which they can be recreated and the length of time required; for example ponds can be created from scratch with reasonable success within a few years, but woods not only take much longer - at least decades - to mature, but even then they do not contain the same flora and fauna as ancient woods on undisturbed soils. In addition to the ecological reasons why certain habitats cannot be recreated, many sites are not capable of being recreated because of practical reasons such as land availability and cost. The more difficult it is to recreate a site's habitats the more important it is to retain it.
Typical urban character	Features such as canals, abandoned wharves, walls, bridges, tombstones and railway sidings colonised by nature often have a juxtaposition of artificial and wild features. Some of these habitats are particularly rich in species and have rare species and communities of species. Their substrates may have a particular physical and chemical nature which allows species to thrive that are rare elsewhere. They may also have particular visual qualities. Such areas are often useful for the study of colonisation and ecological succession.
Cultural or historic character	Sites such as historic gardens with semi-wild areas, garden suburbs, churchyards and Victorian cemeteries which have reverted to the wild may have a unique blend of cultural and natural history.
Geographic	This criterion is operated through the use of

position	search areas and areas of deficiency
Access.	Access is an important consideration, especially in areas where there may be few places for large urban populations to experience the natural world. Nature conservation is not restricted to the preservation of wildlife, but goes hand in hand with the enjoyment of it by all people, from the specialist naturalist to the casual visitor. Some access is desirable to all but the most sensitive of sites, but direct physical access to all parts of a site may not be desirable.
Use	The importance of a site can include its established usage (eg for education, research, or quiet enjoyment of nature).
Potential	Where a site can be enhanced given modest changes in management practices this gives it value. Opportunity exists where a site is likely to become available for nature conservation use, or where there is considerable local enthusiasm about it, or where a voluntary group is willing to use and manage it. Potential in this context can be for habitat enhancement through management, for educational or nature conservation amenity use. Where such potential could remedy a deficiency, or is readily capitalised, it is considered important.
Aesthetic appeal	This factor is the most difficult to measure, but it includes such factors, which contribute to the enjoyment of the experience of visiting a site, as seclusion, views, variety of landscape and habitat structure, colour, and natural sounds and scents.

5.4.4 The guidance states that “for some sites only one or a few of the criteria may be important, but for others it may be all or most of them.” The most appropriate criteria for identifying sites of local importance in this area were considered to be;

- i. Habitat rarity
- ii. Species richness
- iii. Use
- iv. Potential
- v. Aesthetic appeal
- vi. Access

Areas of deficiency for access to nature

5.4.5 Areas of deficiency are defined by the Greater London Authority as built-up areas more than one kilometre actual walking distance from an accessible Metropolitan or Borough site. This can be used as a consideration when determining the choice of Sites of Local

Importance. A significant area located around Peckham Town Centre is identified as being within an area of deficiency. A map showing the area of deficiency in access to nature as identified by the Mayor of London is set out in appendix 2.

5.4.6 The open space strategy identifies areas of deficiency as locations outside a 500m catchment radius for metropolitan, borough and local SINC. The majority of Peckham and Nunhead is within the 500m catchment with the exception of a small area on the north east boundary. A map showing the areas of deficiency in access to natural greenspace, as set out in Southwark's open space strategy is set out in appendix 3.

5.4.7 The London Wildlife Sites Board (LWSB) have endorsed this approach and the LWSB support the designation of the four additional SINC in Southwark as stated in the letter attached as Appendix 4.

5.5 Jowett Street Park

5.5.1 We are proposing to designate Jowett Street Park as a Site of Local Importance for Nature Conservation through policy 42 of the AAP.

5.5.2 An ecological assessment for Surrey Canal Walk which included Jowett Street Park was undertaken in 2009 by the Ecology Officer. This included an assessment of plants and species present at the time and is attached as appendix 5.

5.5.3 The site is approximately 0.84 hectares (ha) in size and is a public park. The survey area comprises numerous mature and young trees scattered throughout extensive amenity grassland with introduced shrub and scattered scrub. The site is in Peckham North Character area and is located between the B216 (Commercial Way) and Jowett Street, with the Surrey Canal Walk forming the eastern boundary. The surrounding area is dominated by residential homes and gardens.

5.5.4 From the site assessment a number of important habitat types were recorded, including: Amenity grassland and areas of introduced shrub and dense scrub.

5.5.5 Trees recorded on site include: lime *Tilia sp.*, honey-locust *Gleditsia tricanthos*, ash *Fraxinus excelsior*, Norway maple *Acer platanoides*, horse chestnut *Aesculus hippocastanum*, and plum *Prunus sp.* The site forms part of the ecological corridor shared with the Surrey Canal Walk and also supports the mosaic of habitats present within this area.



Figure 2: Jowett Street Park

- 5.5.6 A Phase 1 habitat survey (appendix 6) was carried out to provide a comprehensive audit of the sites biodiversity and to advise the maintenance of the site. The survey showed that the habitats at Jowett Street Park are of ecological importance in the context of the local area.
- 5.5.7 The habitats at Jowett Street Park were of ecological importance in the context of the local area only. The habitats at the site corresponded with the following London BAP Habitat types: parks and urban greenspaces and Parks and Open Spaces in the Southwark BAP. These BAPs relate largely to opportunities for enhancement rather than current ecological value of the habitats covered.
- 5.5.8 The site is likely to support certain common and widespread but declining species of bird included house sparrow which is a UK, London and Southwark BAP species. A review of existing data, the status of these species in London and Southwark, and assessment of onsite and surrounding habitat suggests that the populations present are of ecological importance in the local (Peckham) context.
- 5.5.9 In conclusion, when assessed based on the criteria taken from the Mayor's Biodiversity Strategy, this site is proposed as a local SINC due to the presence of locally uncommon habitats including amenity grassland, mature and young planted trees, with smaller areas of planted shrubs, herbaceous perennials and scrub. The site also supports a limited range of locally uncommon habitats comprising mature trees of a low number of species and forms part of the Surrey

Canal Walk ecological corridor. The site is actively used as a public park and is an attractive open area for the public.

5.6 Kirkwood Road Nature Garden

- 5.6.1 We are proposing to designate Kirkwood Road Nature Garden as a Site of Local Importance for Nature Conservation through policy 46 of the AAP. In appendix 14 of the Southwark Plan, we identified Nunhead Railway embankments and Kirkwood Road Nature Gardens as a SINC referring to restricted railway cutting as the detailed typology. The current adopted policies map only identifies the part of the site that is railway embankments as a SINC, in keeping with the description of the SINC as restricted railway cuttings. As set out below, our evidence now shows that the Kirkwood Road Nature Gardens part of this protected open space should also be designated as a SINC. To make it more clear that they are two separate open spaces with different types of uses (the public can access and enjoy the Kirkwood Road Nature Gardens, but the railway embankments are restricted access), it is more appropriate to divide the site in two and name the two open spaces and SINCS as two separate designations. . We are proposing through the AAP to amend the boundaries of the open space and SINC designations to show these sites as two separate open spaces. The precise boundaries are shown on the schedule of proposed changes to the adopted policies map.
- 5.6.2 Whilst no ecological assessment has been undertaken for the site. A site management plan was compiled by London Conservation Services (LCS) for the site. The plan covers the period from 2008 to 2013. The habitats and species present are described and the management required to preserve and enhance the wildlife value of the site is detailed, the site management plan has been included as appendix 7.
- 5.6.3 The site is approximately 0.2 hectares (ha) in size and is a small public park and nature area. The site is located on Cossall Walk in the Peckham East character area. The surrounding area is dominated by residential homes and gardens, railways lines, light industry and secondary woodland along the adjacent railway line.
- 5.6.4 From the site assessment a number of important habitat types were recorded, including: Woodland and scattered trees, marginal vegetation and standing water (pond) and dry ditch, amenity grassland and areas of introduced shrub and dense scrub.
- 5.6.5 The site does support the habitats present within the adjacent Nunhead Railways Cutting SINC and appears to form part of the ecological corridor.

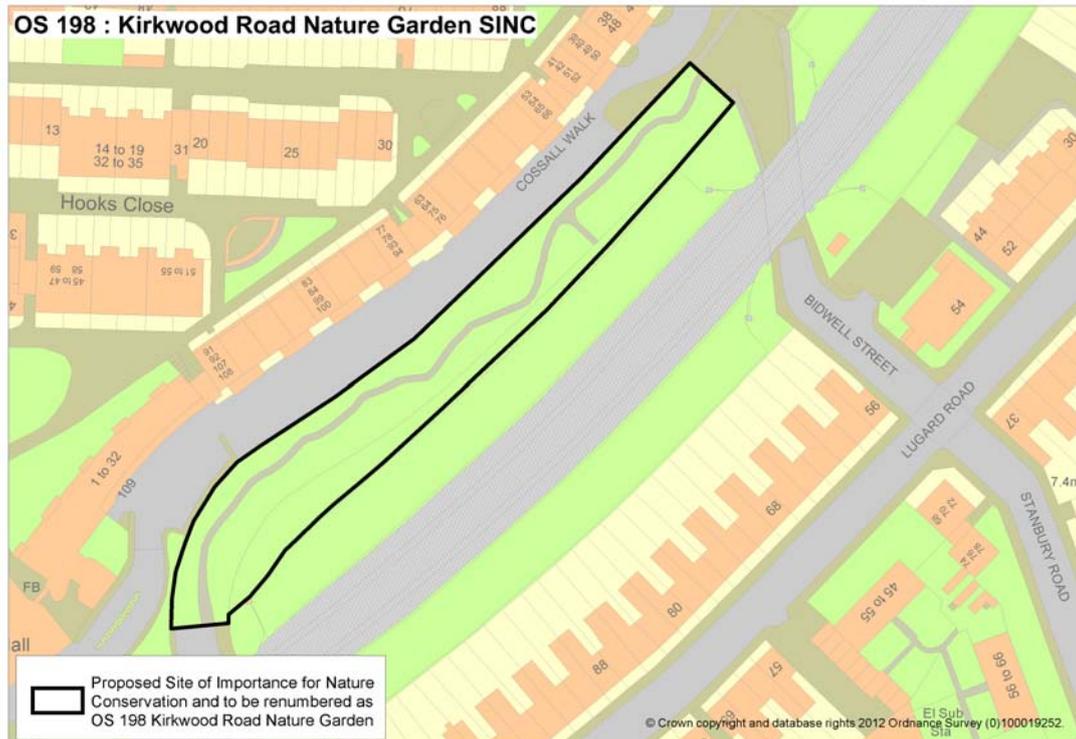


Figure 3: Kirkwood Road Nature Garden

- 5.6.6 A Phase 1 habitat survey (appendix 8) was carried out to provide a comprehensive audit of the sites biodiversity and to advise the maintenance of the site. The survey showed that the habitats at Kirkwood Road Nature Garden do not meet local criteria for designating Sites of Metropolitan, or Borough Importance for Nature Conservation; however the site does meet some criteria for Local Importance for Nature Conservation.
- 5.6.7 The habitats at the Kirkwood Road Nature Garden were of ecological importance in the context of the local area. The habitats at the site corresponded with the following London Biodiversity Action Plan (BAP) Habitat types: parks and urban greenspaces, Woodland, and Parks and Open Spaces in the Southwark BAP. These BAPs relate largely to opportunities for enhancement rather than current ecological value of the habitats covered.
- 5.6.8 The site is likely to support certain common and widespread but declining species of bird included house sparrow which is a UK, London and Southwark BAP species. A review of existing data, the status of these species in London and Southwark, and assessment of onsite and surrounding habitat suggests that the populations present are of ecological importance in the local (Peckham) context.
- 5.6.9 In conclusion, when assessed using the criteria taken from the Mayor's Biodiversity Strategy, this site is proposed as a local SINC because the site forms part of a local and limited ecological corridor, and enhancements to planting and maintenance could provide opportunities

to implement the London BAPs for Parks and Urban Greenspaces and Woodland, and the Southwark BAP. The site is actively used as a public park and is an attractive area for the public.

5.7 Surrey Canal Walk

- 5.7.1 We are proposing to designate Surrey Canal Walk as a Site of Local Importance for Nature Conservation through policy 42 of the AAP.
- 5.7.2 An ecological assessment for Surrey Canal Walk was undertaken in 2009 by the Ecology Officer. This included an assessment of plants and species present at the time and is attached as appendix 5.
- 5.7.3 The site is approximately 3.15 hectares (ha) in size and is a public pathway/park. Habitats comprise numerous mature and young trees scattered throughout extensive amenity grassland with tall ruderal vegetation, introduced shrub and scattered scrub. The site is located in the Peckham North character area between the A202 (Peckham High Street) which forms the southern boundary and Burgess Park along the northern boundary. The western and eastern limits are bound by residential homes and gardens, with Jowett Street Park forming a small area of the centre of the site.
- 5.7.4 Surrey Canal Walk contains a number of important habitat types, including: Scattered trees and areas of introduced shrub and dense scrub.

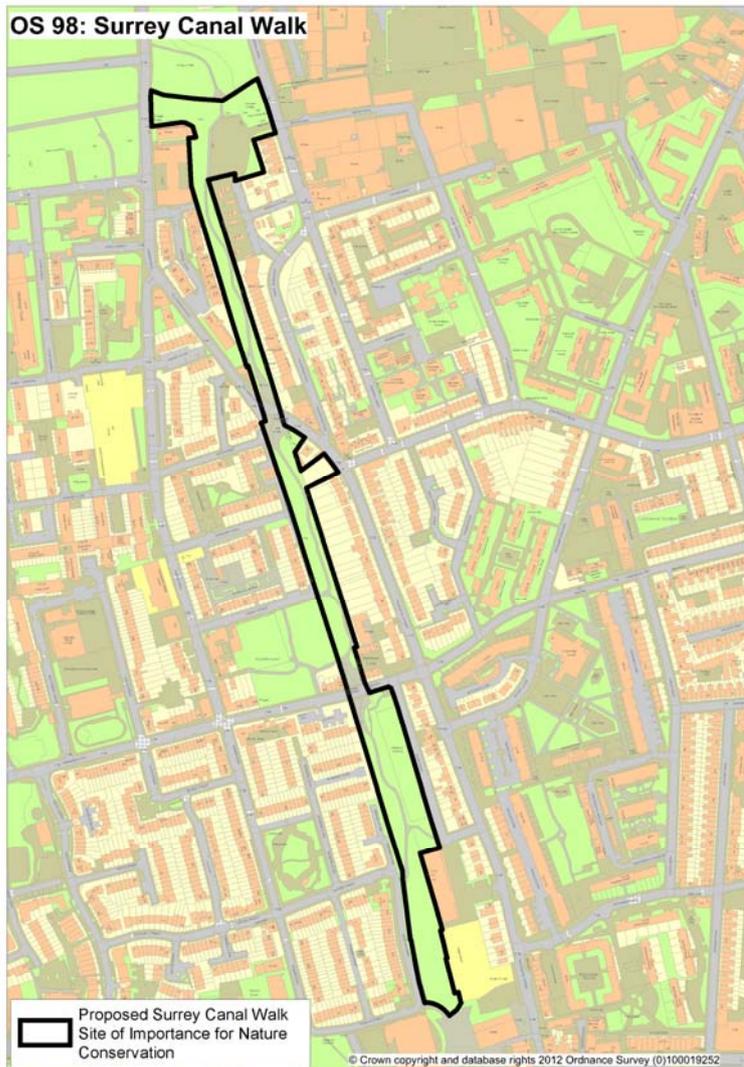


Figure 4: Surrey Canal Walk

- 5.7.5 A Phase 1 habitat survey (appendix 9) was carried out to provide a comprehensive audit of the sites biodiversity and to advise on the maintenance of the site. The report shows that the habitats at Surrey Canal Walk are of ecological importance in the context of the local area.
- 5.7.6 The habitats at the site corresponded with the following London BAP Habitat types: built structures, parks and urban greenspaces, and woodland, and parks and open spaces in the Southwark BAP.
- 5.7.7 The site forms part of the ecological corridor shared with Burgess Park and Jowett Street Park and the adjacent allotments, and also supports the mosaic of habitats present within the Parks.
- 5.7.8 The site supports a limited range of locally uncommon habitats comprising mature trees of a low number of species and tall ruderal vegetation of a moderate number of species. Enhancements to planting and maintenance could provide opportunities to implement the London

BAPs for Parks and Urban Greenspaces and the Southwark BAP. The site is actively used as a public park and is an attractive open area for the public.

5.7.9 Based on the criteria from the Mayor's Biodiversity Strategy, this site is proposed as a local SINC due to the presence of mature trees, an uncommon feature within the wider landscape. This habitat is of limited extent and recent origin, is readily re-creatable and predominantly planted. Such a habitat is likely to be common within the borough of Southwark but appears to be uncommon in Peckham. The site has habitats with potential to support legally protected species including bats, birds, widespread reptiles, amphibians and invertebrates.

5.7.10 London Wildlife Sites Board recommended that this SINC should be joined with Burgess Park and managed as one open space. Whilst the SINC is currently managed this way, we consider that it is more appropriate for Surrey Canal Walk to be designated as a separate SINC at this time to reflect the fact the Surrey Canal Walk and Burgess Park are designated as different open spaces on our adopted policies map. Burgess park is also outside of the boundary of the AAP and therefore we cannot make this change through the AAP. We will review the boundaries of all Sites of Importance for Nature Conservation through the New Southwark Plan which we are due to start work on later this year.

5.8 Warwick Gardens

5.8.1 We are proposing to designate Warwick Gardens as a Site of Local Importance for Nature Conservation through policy 38 of the AAP.

5.8.2 An ecological assessment for Warwick Gardens was undertaken in 2009 by the Ecology Officer. This included an assessment of plants and species present at the time and is attached as appendix 10.

5.8.3 The site is approximately 1.5ha in size and is a public park and community orchard. The area comprises young and mature scattered trees, extensive amenity grassland, with small areas of introduced shrub. Hardstanding paths provide access throughout and a small children's play park is situated in the north western limit. The site is located in the Peckham South character area between Lyndhurst Way which forms the eastern boundary and Azenby Road which provides access from the north. The surrounding area is dominated by residential homes and gardens with railway lines and secondary woodland to the south.

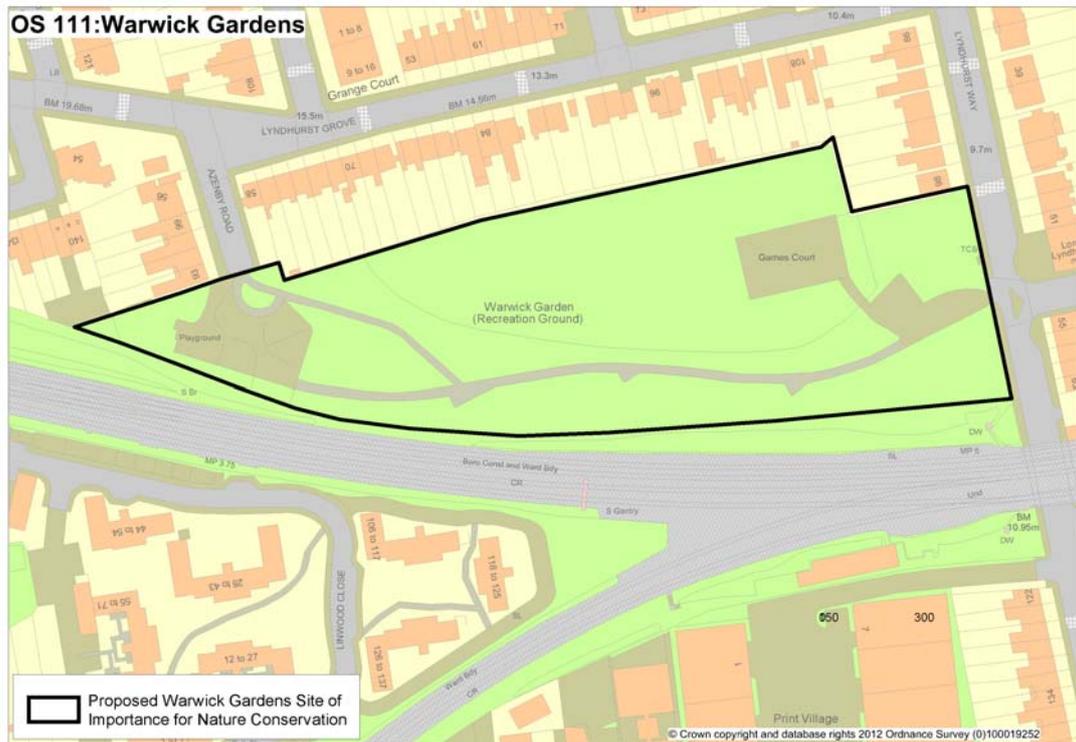


Figure 5: Warwick Gardens

- 5.8.4 Phase 1 habitat survey (appendix 11) was carried out to provide a comprehensive audit of the sites biodiversity and to advise on the maintenance of the site. The report shows that the habitats at Warwick Gardens are of ecological importance in the context of the local area.
- 5.8.5 The habitats at the site corresponded with the following London BAP Habitat types: parks and urban greenspaces, and Parks and Open Spaces in the Southwark BAP.
- 5.8.6 The site is dominated by amenity grassland, including a small area of uncut grassland, scattered trees, and introduced shrub. While none of these habitats are rare in the London and borough context, based on a review of aerial photography this habitat mosaic is locally uncommon. Woodland occupies 4% and tall grassland only occupies 1% of Southwark (London Borough of Southwark 2007)
- 5.8.7 The site has a community orchard, which is young but contributes to the community value of the site for local residents and other members of public.
- 5.8.8 Based on the criteria from the Mayor's Biodiversity Strategy, this site is proposed as a local SINC due to the presence of amenity grassland, an uncommon feature within the wider landscape. This habitat is of limited extent and recent origin, is readily re-creatable and predominantly planted. Such a habitat is likely to be common within the borough of Southwark but appears to be uncommon in Peckham. The site is actively used as a public park and is an attractive area for the public.

6. IMPLEMENTATION

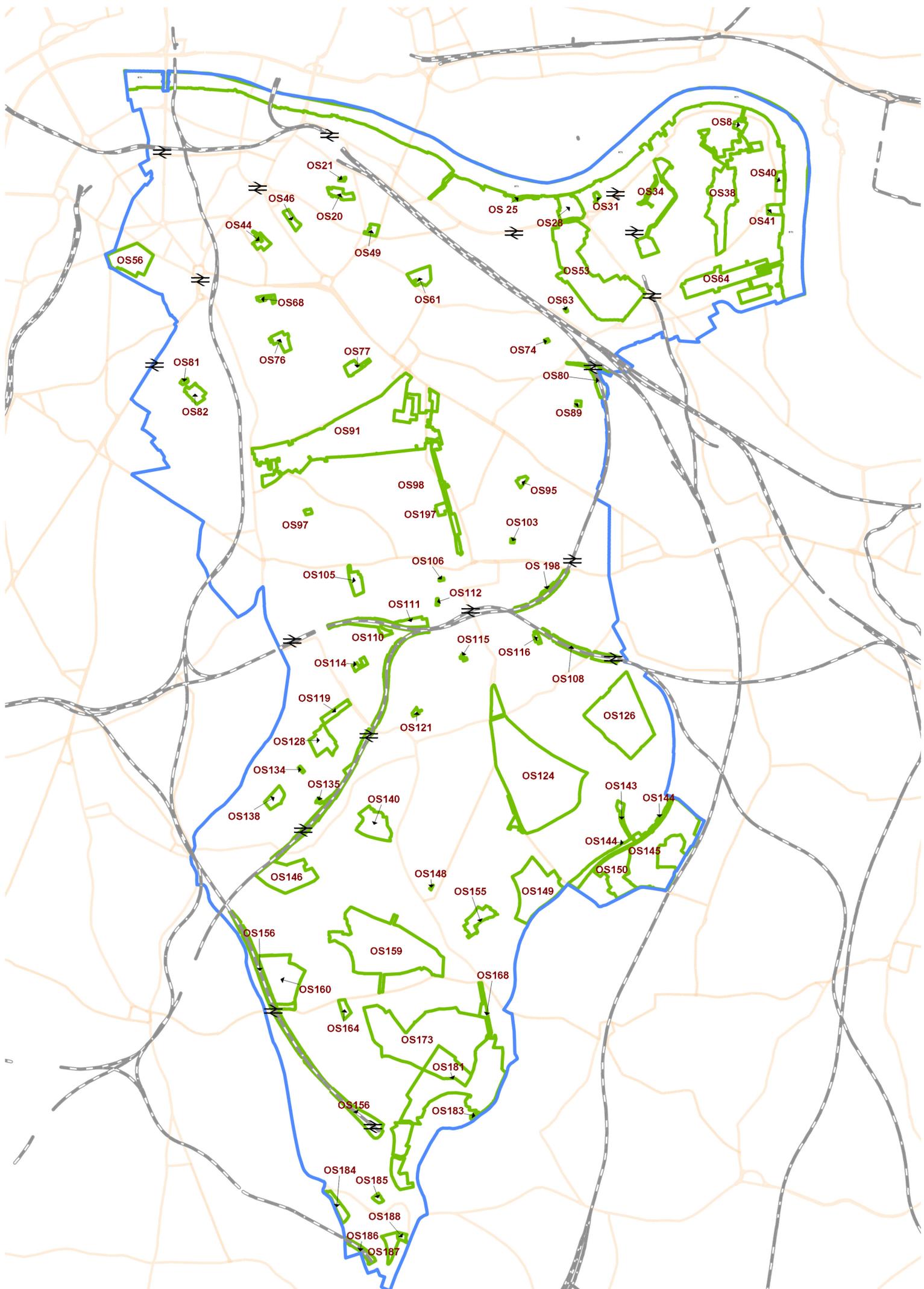
- 6.1 The Section 7 of the AAP sets out how the policies within will be delivered. The infrastructure plan within section 7.5 sets out information on how we will improve the existing infrastructure and provide new infrastructure to cope with the additional population and visitors. It sets out detail on open spaces, including information within our Biodiversity Action Plan (CDEN2) and the projects it identifies for improvements with Peckham and Nunhead at Peckham Rye Park and Nunhead Cemetery. The open spaces strategy (CDEN1) provides further detail, some of which is summarised in the AAP infrastructure background paper (CD10).
- 6.2 Southwark's Biodiversity Action Plan (2013) sets out a number of recommendations relating to the management of SINC sites in the borough. It is a council objective to produce management plans for all SINC sites in Southwark's management.
- 6.3 The schedule of proposed changes to the adopted policies map (CD20) illustrates the new boundary designations. Once the AAP has been adopted, we will show these new designations on our adopted policies map. By using saved Southwark Plan policy 3.28 the new sites of importance for nature conservation in Peckham and Nunhead, identified through the open spaces strategy and the AAP preparation, will be protected from inappropriate development.

7. DOCUMENT REFERENCES

CDN1	National Planning Policy Framework (NPPF) (March 2012)
CDR1	London Plan (July 2011)
CDR17	Mayor's Biodiversity Strategy (2002)
CDL1	Core Strategy (2011)
CDL2	Saved Southwark Plan (2007)
CD10	Peckham and Nunhead AAP Infrastructure background paper
CD15	Vision paper (March 2008)
CD16	Issues and options (2009)
CD17	Towards a preferred option (2011)
CD18	Preferred Option (2012)
CD19	Peckham and Nunhead AAP Open spaces designations background paper
CD20	Peckham and Nunhead AAP Schedule of proposed changes to the adopted policies map
CDEN1	Southwark Open Space Strategy (2013)
CDEN2	Southwark Biodiversity Action Plan (2013)

Peckham and Nunhead AAP: Sites of Importance for Nature Conservation
background paper - appendices

**Appendix 1:
Map of SINC's in Southwark**



Peckham and Nunhead AAP: Sites of Importance for Nature Conservation
background paper - appendices

Appendix 2:
GLA Map of area of deficiency in access to nature

London Borough of Southwark

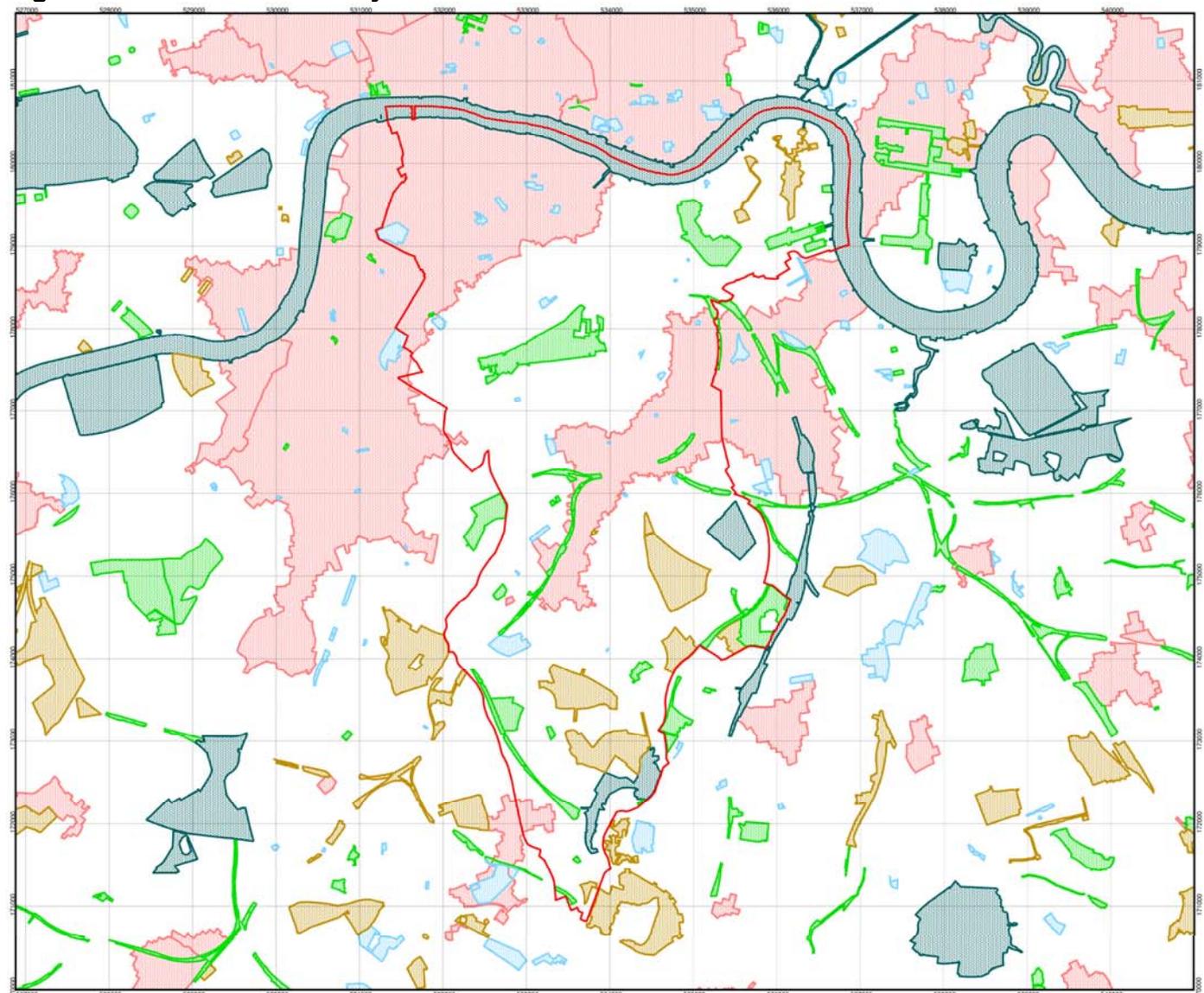
-  Borough Boundary
-  Site of Metropolitan Importance
-  Site of Borough Importance Grade 1
-  Site of Borough Importance Grade 2
-  Site of Local Importance
-  Areas of Deficiency

Scale 1:45000

The Sites of Importance for Nature Conservation have been identified since 1986 using procedures which have now been adopted by the Mayor of London. They are recommended for protection in planning. The boundaries and site grades reflect the most recent consideration of each site, details of which are available from the Trust and the Greater London Authority. Note that boundaries and grades may change as new information becomes available.

Produced by Greenspace Information for Greater London

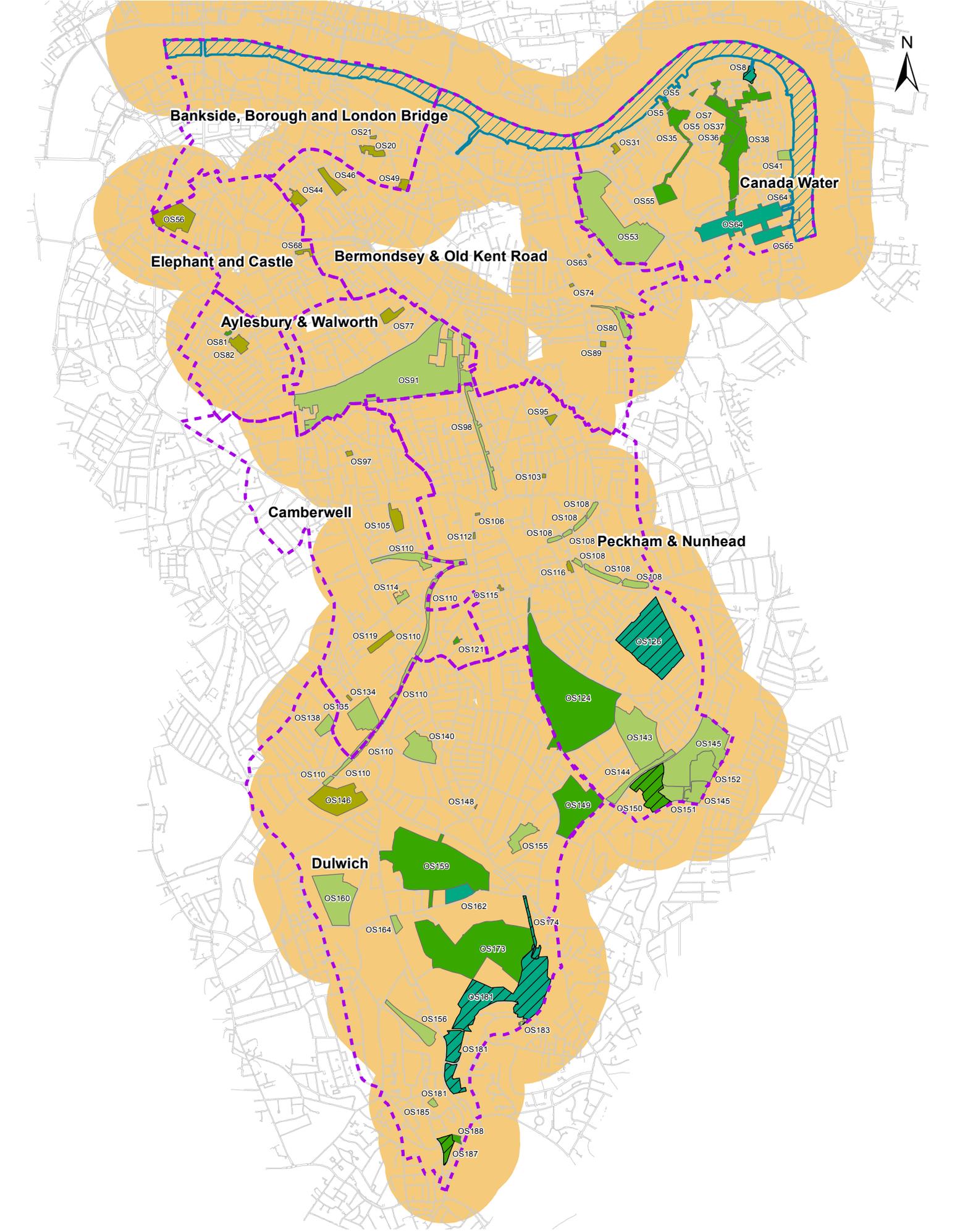
Based upon the Ordnance Survey 1:10 000 map with the permission of The Controller of Her Majesty's Stationery Office. © Crown Copyright. All rights reserved. Licence No. LA100032379



Source: Greater London Authority

Peckham and Nunhead AAP: Sites of Importance for Nature Conservation
background paper - appendices

Appendix 3:
LB Southwark map of natural greenspace deficiency



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Legend

- Thames Site of Importance for Nature Conservation
- 500m Catchment Area
- Borough Sub-Areas
- Site of Metropolitan Importance
- Site of Local Importance
- Borough Importance - Grade 1
- Borough Importance - Grade 2



CLIENT	LB Southwark
PROJECT	Southwark Open Space Study

TITLE		
Figure 5.8 – Natural Greenspace		
SCALE	DATE	DRAWN
1:40,000	04/10/2011	SWK

Peckham and Nunhead AAP: Sites of Importance for Nature Conservation
background paper - appendices

**Appendix 4:
London Wildlife Sites Board letter**

Kate Johnson
Senior Planner
LB Southwark
Kate.Johnson@southwark.gov.uk

Dear Kate

Sites of Importance for Nature Conservation Review

I am writing to you in my capacity as Chair of the London Wildlife Sites Board (LWSB). The LWSB was established to ensure that the selection and approval of Sites of Importance or Nature Conservation (SINCs) by London Boroughs is consistent with:

- national guidance set out in *Local Sites – guidance on their identification, selection and management* (Defra 2006)
- regional policy as set out in Appendix 1 of the Mayor's Biodiversity Strategy *Connecting to London's Nature* (GLA, 2002)
- regional guidance in the London Plan Implementation Report *London's Foundations* (GLA, 2009)

Boroughs are not obliged to consult the LWSB on their site selection and review process. But seeking the views of the LWSB about the scope, approach, and outcome of any review helps to demonstrate that the review has been transparent and consistent with the existing policy framework in London.

The views of the LWSB should be sought when the Borough is seeking to select a new Site of Metropolitan Importance (SMI) for nature conservation or to change the boundary or status of an existing SMI.

The advice set out in the Appendix to this letter is the advice of the LWSB and should not be construed as any formal commentary from the Greater London Authority.

Yours sincerely



Peter Massini
Chair, London Wildlife Sites Board

London Wildlife Sites Board Advisory Comments

Set out below is a summary of your submission, and the LWSB comments on your Borough's process for selecting or reviewing Sites of Importance for Nature Conservation (SINCs). As the primary role of the LWSB is to comment on the process of selection or review, the LWSB comments relate to: survey of sites; the review or selection methodology; the local site selection panel; plus observations on the outcomes of the selection or review process. Where appropriate there are LWSB comments on proposed changes to Sites of Metropolitan Importance.

Borough:	Southwark
Document:	Peckham and Nunhead Area Action Plan - Submission version Sites of Importance for Nature Conservation background paper
Submitted by:	Kate Johnson, Senior Planner, LB Southwark
Date of LWSB meeting:	23rd October 2012
LWSB Members:	Peter Massini - Greater London Authority Mathew Frith - London Wildlife Trust Ian Holt - London Borough of Haringey Maria Longley - Greenspace Information for Greater London David Brook - London Geodiversity Partnership
Site Survey	Surveys of three proposed Sites of Local Importance undertaken by Southwark's Ecology Officer in 2009. An additional proposed Local Site has an extant management plan compiled by London Conservation Services.
Review methodology	Part of the consultation on the Peckham and Nunhead AAP
Local panel	No Local Panel involvement
Outcome	Four new Sites of Local Importance

LWSB Comments on Review Process

- The review was undertaken with a sound understanding of the policy and procedures recommended by the London Plan.
- Although a Local Panel wasn't engaged in site selection all the proposals are for Local Site status and therefore the threshold for extensive consultation is low.
- The proposals are subject to formal public consultation.

LWSB Recommendation

The LWSB endorses the proposal by Southwark to identify four additional Sites of Local Importance for Nature Conservation. However, the panel also recommends that Southwark Council should consider incorporating Surrey Canal Walk into the Burgess Park Site of Borough Importance.

Peckham and Nunhead AAP: Sites of Importance for Nature Conservation
background paper - appendices

**Appendix 5:
Surrey Canal Walk ecological assessment**

Surrey Canal Walk SINC designation

1. Introduction

It is proposed to designate Surrey Canal Walk as a Site of Local Importance for Nature Conservation. The criteria developed by the London Ecology Unit and the field and desktop assessment of the site provide evidence for its designation.

2. Assessment criteria

The criteria used to evaluate this site were developed by the London Ecology Unit and uses widely recognised criteria to evaluate the nature conservation importance of sites. These were first published in the document 'Planning for nature conservation in London in 1985', and revised in the report Policy, criteria and procedures for identifying nature conservation sites in London, published in January 1994. The latter report was endorsed by the London Planning Advisory Committee in 1995.

The following criteria are used to ascertain Local Importance.

"A Site of Local Importance is one which is or may be of particular value for nearby residents or schools. These sites may already be used by schools for nature study or be run by management committees mainly composed of local people. Local sites are particularly important in areas otherwise deficient in nearby wildlife sites".

"Built-up areas more than one kilometre from an accessible Metropolitan or Borough site are defined as Areas of Deficiency. Further Local sites are chosen as the best available to alleviate this deficiency; such sites need not lie within the Area of Deficiency, but should be as close to it as possible. Where no such sites are available, opportunities should be taken to provide them by habitat enhancement or creation, by negotiating access and management agreements, or by direct acquisition".

3. Site assessment methodology

An ecological assessment was undertaken in 2009 by the Ecology Officer. This was not a rigorous examination of the site but rather a general walkover assessment of plants and species present at the time. This was complimented by a desktop study of the site using records from the London Records Centre.

4. The ecological value

The park is 4.48 ha in size and contains a mix of habitats. The park is adjacent to Burgess Park and also provides a green corridor leading up to Rye Lane.

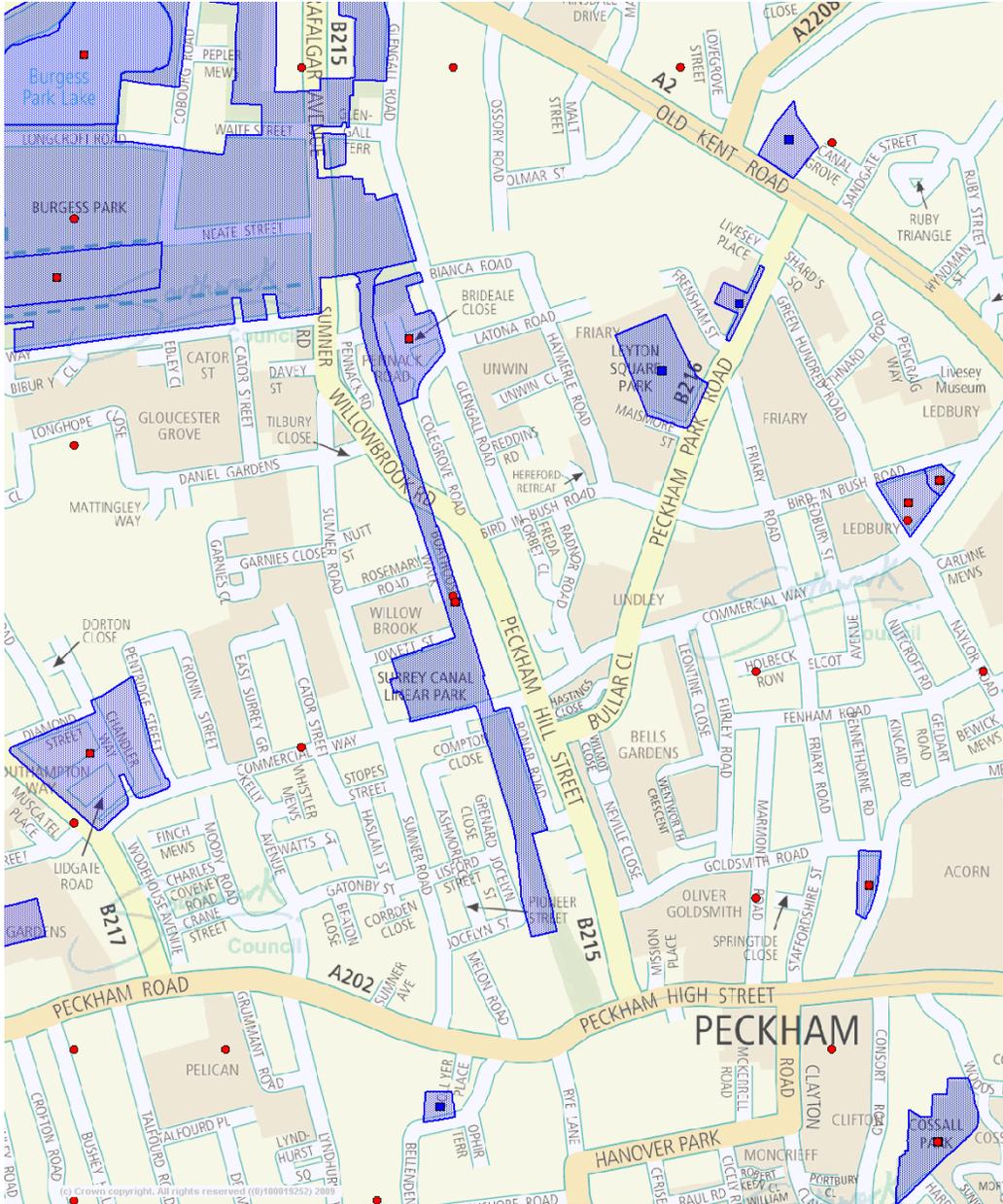


FIG 1, Surrey Canal Walk ecological records.

From the site assessment a number of important habitat types were recorded, including: Ruderal and ephemeral, hedge, roughland, bare open ground, scattered trees, shrubbery, and deadwood.

The park contains a number of notable species that benefit wildlife. Birds include: 2 red data book species, the House Sparrow and Starling. One amber list species; the dunnock. Also Blackbird, wren, crow, robin, and blue tit.

Trees recorded on site include: Ash, Lime, Birch, Horse chestnut, false acacia, grey alder, Norway maple, sycamore, beech, Willow, poplar, London Plane, and Rowan.

Herbs include: Hedge mustard, creeping buttercup, dove's foot cranesbill, wall barley, white clover, oxford ragwort, medick, hogweed and charlock.

Bats have been recorded nearby so it is likely that the site offers commuting and foraging opportunities for bats.

The sites habitats, the size of the area, it's proximity to the River, are the reason it is proposed as a Site of Local importance for nature conservation. It is also close to several schools so it meets the criteria for providing educational opportunities.

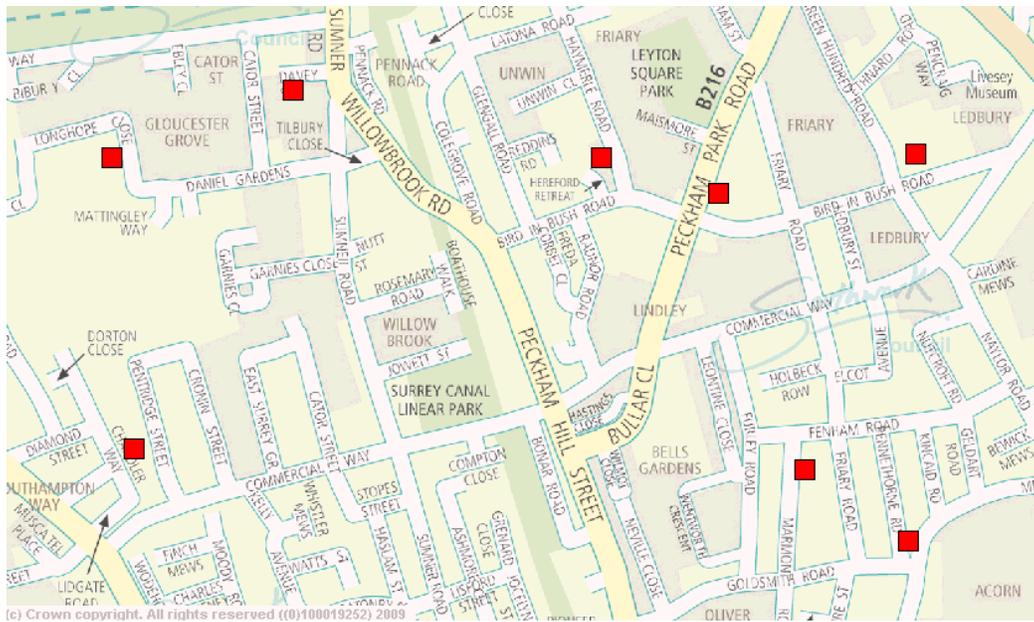


Fig 2, Schools close to Surrey Canal Walk.

5. Recommendations.

It would be advisable to undertake a Phase 1 habitat survey to provide a comprehensive audit of its biodiversity and to advise the maintenance of the site. This may also highlight funding opportunities for the park.

Peckham and Nunhead AAP: Sites of Importance for Nature Conservation
background paper - appendices

**Appendix 6:
Jowett Street Park Phase 1 habitat survey**

Jowett Street Park, Southwark

Preliminary Ecological Appraisal

Report for London Borough of Southwark

Author	Sabrina Bremner BSc.		
Job No	120681		
	Date	Checked by	Approved by
Initial	19/09/12	JK	/
Revision	10/10/12	JK	/
Revision	18/02/13	SB	/

Contents

Executive Summary	1
1 Introduction	2
2 Methodology	4
3 Results	6
4 Evaluation	8
5 Conclusions and Recommendations	13
References	17
Appendix 1: Habitat Survey Map	19
Appendix 2: Plant Species List	21
Appendix 3: Photographs	24
Appendix 4: Legislation & Planning Policy	26
Appendix 5: Species of Value to Wildlife	38

LIABILITY

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Executive Summary

The Ecology Consultancy was commissioned by the London Borough of Southwark to carry out a preliminary ecological appraisal and nature conservation evaluation of Jowett Street Park, Peckham. The survey was commissioned in order to support the proposals for designation of the park as a Site of Importance for Nature Conservation as part of the Peckham and Nunhead Area Action Plan (London Borough of Southwark, 2012). The main findings of the surveys are as follows:

- The great majority of the site comprised mature and young trees scattered throughout extensive amenity grassland with one area of dense scrub and formal beds of introduced shrub. None of the habitats present were rare, long established or notable for other reasons, but some, notably mature broadleaved trees, are unlikely to be common locally.
- The site accords with the London BAP (Biodiversity Action Plan) for Parks and Urban Greenspaces and the Southwark BAP. These BAPs relate predominantly to opportunities for enhancements rather than current ecological value of the habitats present. A number of flagship species associated with the Southwark BAP are likely to be present and others could be encouraged through further habitat enhancements.
- Plant species diversity was low (c24 self established species), none were rare.
- Mature trees, shrubs and scrub present at the site are likely to provide foraging and breeding habitat for a range of common birds including some Biodiversity Action Plan (BAP) species such as house sparrow. Although numbers present would be limited by available habitat there is the potential for locally significant populations to be present.
- Mature and young trees, introduced shrub, scrub and amenity grassland habitats are likely to support a limited range of widespread invertebrates.
- Trees at the site were of low potential for roosting bats. On-site bat foraging habitat was extensive but of low quality, connectivity to off-site habitat was good, however levels of light pollution are likely to be high. It is considered that the likelihood of roosting bats being present at the site is low.
- In summary the site is considered to be of local value for nature conservation due to the presence of mature trees. This habitat is of limited extent and recent origin, is readily re-creatable and predominantly planted. Such a habitat is likely to be common within the borough of Southwark but appears to be uncommon in Peckham.

1 Introduction

BACKGROUND

- 1.1 The Ecology Consultancy was commissioned by the London Borough of Southwark to produce a report on the baseline ecological conditions of Jowett Street Park. The site is located within Peckham in the London Borough of Southwark and is centred on Ordnance Survey Grid Reference TQ 340 771. This report contains the results of a preliminary ecological appraisal carried out on the 26th July 2012. It describes the key ecological features of the site, provides an evaluation of the importance of ecological features at the site and makes recommendations for enhancing the ecological value of the site.

SCOPE OF THE REPORT

- 1.2 This report is based on a desk top study, and field survey using standard Phase 1 survey methodology (JNCC, 2010¹), as adapted for use in Greater London by the Greater London Authority (GLA 2002)². This approach is designed to identify broad habitat types at a site, to identify the potential of habitats to support protected species, and to assist in providing an overview of the ecological interest at a site. It is generally the most widely used and professionally recognised method for initial ecological site appraisal.
- 1.3 Ecological receptors at the site were evaluated according to a geographic scale as recommended in Institute of Ecology and Environmental Management's Guidelines for Ecological Impact Assessment in the United Kingdom³ and the GLA's criteria for selection of Sites of Importance for Nature Conservation (SINCs) in London.

SITE CONTEXT AND STATUS

- 1.4 The site was approximately 0.84 hectares (ha) in size and is a public park. The survey area comprised numerous mature and young trees scattered throughout extensive amenity grassland with introduced shrub and scattered scrub. At the time of the survey the site was well maintained, with neatly cut grass in most areas.

¹ JNCC, (2010), Handbook for Phase 1 habitat survey -a technique for environmental audit, ISBN 0 86139 636 7

² Greater London Authority (GLA) (2002) Connecting with London's Nature, The Mayor's Biodiversity Strategy

³ Institute of Ecology and Environmental Management (2006) *Guidelines for Ecological Impact Assessment in the United Kingdom* (version 7 July 2006). <http://www.ieem.org.uk/ecia/index.html>

- 1.5 The site is located between the B216 (Commercial Way) and Jowett Street, with Surrey Canal Walk forming the eastern boundary. The surrounding area was dominated by residential homes and gardens.
- 1.6 None of the site is covered by statutory or non-statutory nature conservation designations. The most notable nearby ecological feature is the Nunhead Cemetery Local Nature Reserve (LNR) located c. 1952 metres (m) south east of the site. The nearest non-statutory site is Burgess Park Site of Borough Grade II Importance for Nature Conservation (SINC), approximately 483m to the north of the site.

2 Methodology

EXTENDED PHASE 1 HABITAT SURVEY

- 2.1 A walkover survey of Jowett Street Park site was carried out by Sabrina Bremner (Ecologist) and Alexandra Davey (Assistant Ecologist) on the 26th July 2012. This followed standard Phase 1 methodology (JNCC 2010) mapping the habitats and noting dominant flora species present. This was supplemented by a desk-top study using on-line mapping services for information on statutory designated sites (www.magic.gov.uk and <http://www.natureonthemap.org.uk/map.aspx>). In addition, the UK (JNCC, 2010), London (London Biodiversity Partnership, 2010: <http://www.lbp.org.uk>) and the Southwark Biodiversity Action Plan (BAP) (London Borough of Southwark, 2007) were reviewed for those species and habitats that may, or have the potential to be, present at the site.
- 2.2 A habitat plan of the site is provided in Appendix 1. Photographs of the site are shown at Appendix 2. A full list of plant species identifiable at the site, along with an assessment of their abundance, appears in Appendix 3.
- 2.3 Incidental records of birds and other fauna noted during the course of the habitat survey were also compiled. Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

SITE EVALUATION

- 2.4 The assessment of the site's ecological features and attributes has been undertaken in line with the 2006 Institute of Ecology and Environmental Management (IEEM) guidelines for Ecological Impact Assessment (EclA). These guidelines aim to provide consistency in the approach to evaluating the importance of ecological features and any impact that a new development would have upon them.
- 2.5 The value of ecological features is defined according to the following geographical scale:
- International;
 - UK;
 - National (i.e. England/Northern Ireland/Scotland/Wales);
 - Regional;

- County (or Metropolitan - e.g. in London);
- District (or Unitary Authority, City, or Borough);
- Local or Parish;
- Within zone of influence only (which might be the project site or a larger area); and
- Negligible value.

2.6 The assessment of value for a given feature draws on a range of ecological attributes including:

- The presence of designated sites or BAP habitats or BAP species;
- The presence of rare species or significant populations of species, or populations at the edge of a species' distribution;
- The presence of ancient, rare, fragile or vulnerable habitats and those that are good examples of their type;
- The presence of rare or diverse assemblages of habitats or species; and
- The potential value where there is a possibility of increasing habitat or population size or connectivity or of improving habitat quality.

2.7 In addition, the site has been evaluated using local criteria for designation of non-statutory wildlife sites provided by the Greater London Authority (GLA) in *Connecting with London's nature the Mayor's Biodiversity Strategy* (GLA 2002).

LIMITATIONS

2.8 It should be noted that, whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment. This Preliminary Ecological Assessment does not constitute a full botanical survey, or a Phase 2 survey that would include accurate GIS mapping for invasive or protected plant species.

2.9 The site evaluation provides an overview of the site's ecological value using recognised locally developed criteria and is therefore sufficient to support any decisions for designation in the Area Action Plan. However, it is not based on detailed surveys. While unlikely, it should be recognised that any future surveys could provide records for rare species that would not have been detected in the current survey.

3 Results

DESK STUDY

- 3.1 The following information regarding the present and historical ecological interest of the site was supplied by the online desk study. The data covers a standard 1km radius search area.
- 3.2 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded. Records include information on the following:

Nature conservation designations

- 3.3 **Statutory Sites of Importance for Nature Conservation:** The site is not subject to statutory nature conservation designations, such as SPA, SSSIs, SACs or LNRs. The desk-based search shows that there are no sites with European or National statutory designations within a 1km radius of the site.
- 3.4 The nearest statutory designated site is Nunhead Cemetery LNR which lies approximately 1952 metres (m) south east of the site. This site is described as a large area of broadleaved woodland, a good population of breeding birds, and 16 species of butterfly, including the nationally scarce white-letter hairstreak *Strymonidia w-album*.
- 3.5 **Non-statutory sites of nature conservation importance:** The nearest SINC within the 1km search area is Burgess Park Site of Borough Grade II Importance for Nature Conservation, approximately 483m to the north of the site. This is a large park with lakes and emergent vegetation, a nature area, mature and young trees, shrubs, rough and amenity grassland and supports waterfowl.

EXTENDED PHASE 1 HABITAT SURVEY

- 3.6 Please refer to the habitat map in Appendix 1 for the locations of the features of ecological interest described below.

Scattered trees

- 3.7 Species of mature and young tree included lime *Tilia* sp., honey-locust *Gleditsia tricanthos*, ash *Fraxinus excelsior*, Norway maple *Acer platanoides*, horse chestnut *Aesculus hippocastanum*, and plum *Prunus* sp.

Amenity grassland

- 3.8 Amenity grassland was present throughout the site. Species included perennial rye grass *Lolium perenne*, red fescue *Festuca rubra*, yarrow *Achillea millefolium*, Yorkshire fog *Holcus lanatus*, creeping buttercup *Ranunculus repens*, white clover *Trifolium repens*, docks *Rumex* spp., cut-leaf cranesbill *Geranium dissectum*, annual wall rocket *Diplotaxis muralis*, petty spurge *Euphorbia peplus*, and dandelion *Taraxicum* sp. A small area was uncut, and had similar species diversity to the mowed areas.

Introduced shrub and dense scrub

- 3.9 Areas of introduced shrub were present in formal beds predominantly in the northern limit of the site. Species included garden privet *Ligustrum ovalifolium*, lilac *Syringa vulgaris*, pampas-grass *Cortaderia selloana*, red hot poker *Kniphofia* sp., and Japanese anemone *Anemone hupehensis* var. *japonica*. Dense scrub was present along the south western boundary; species included bramble *Rubus fruticosus*, elder *Sambucus nigra*, blackthorn *Prunus spinosa*, gorse *Ulex europaeus*, hawthorn *Crataegus monogyna* and ivy *Hedera helix*.

4 Evaluation

Geographic evaluation

- 4.1 **Features of International Value:** Features of international value are principally sites covered by international legislation or conventions such as those sites designated under the Habitats Regulations which implements the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive). Sites designated at this level include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) which form the Natura 2000 network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). The regulations deal mainly with protection afforded to habitats, however, they also give protection to certain species of flora and fauna including bats and great crested newts.
- 4.2 The site does not form part of a site of international importance for nature conservation and is distant from any such sites. Based on habitat quality and review of existing data, it is considered likely that the site would support roosting bats such as soprano pipistrelle *Pipistrellus pygmaeus* in low numbers and low foraging activity. The site's value for bats is unlikely to be important in the local context.
- 4.3 **Features of national importance:** Features of national importance include SSSIs which are designated under the Wildlife and Countryside Act 1981 (as amended) as well as species such as widespread reptiles which are subject to national legislation rather than international legislation. The site does not form part of a site of national importance for nature conservation and is distant from any such sites. The site may support breeding birds, which are protected under the Wildlife and Countryside Act 1981 (as amended). The site may also support species covered by the UK BAP and which are therefore material considerations in determining planning applications. The UK BAP species present or potentially present at the site is house sparrow *Passer domesticus* and song thrush *Turdus philomelos*. Due to the limited extent of suitable habitat at the site it is considered that populations present would be of no more than local importance.
- 4.4 The site does not meet the criteria for the UK Biodiversity Action Plan (BAP) for Open Mosaic Habitats on Previously Developed Land, due to the limited extent and quality of this habitat at the site.

- 4.5 **Features of regional (i.e. Greater London) importance:** Sites of Metropolitan Importance for Nature Conservation (i.e. sites considered to be of London-wide importance for wildlife) are defined as being ‘... *those sites which contain the best examples of London’s habitats, sites which contain particularly rare species, rare assemblages of species or important populations of species...*’
- 4.6 As shown in the site evaluation using local criteria for designation of non-statutory wildlife sites⁴ in Table 1 below, the site lacks any features that would justify designation at the metropolitan level.
- 4.7 The London BAP habitats and species present or potentially present at the site are as follows: Parks and Urban Green Spaces, and house sparrow. The London BAP for Parks and Urban Green Spaces relates to the potential for enhancing their wildlife value rather than intrinsic ecological importance of existing habitats. As discussed below, populations of house sparrow are unlikely to exceed local value.
- 4.8 **Features of borough (i.e. Southwark) importance:** Sites of Borough Importance for Nature Conservation are defined as being ‘...*sites which 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...*’ A review of Sites of Borough (grade I and II) Importance for Nature Conservation in the vicinity of the site and the application of local criteria below shows that the site is not likely to be important at the borough level in terms of its habitats or species.
- 4.9 The Southwark BAP is applicable to the site. This relates largely to the potential for enhancing the wildlife value of the site and is intended to encourage opportunities for wildlife through land management. Associated with each BAP habitat are a number of ‘flagship species’ (London Borough of Southwark, 2007) which are characteristic or of specific importance to parks and open spaces in Southwark and for which conservation actions should be developed. Of these species the site is currently considered suitable for house sparrow, buttercups *Ranunculus* spp., holly blue *Celastrina argiolus* and meadow brown *Maniola jurtina* butterflies, although this is likely to be at the Local level only, due to the limited extent and quality of existing habitats.

⁴ Connecting with London’s nature the Mayor’s Biodiversity Strategy Greater London Authority 2002

- 4.10 **Features of local (i.e. Peckham) importance:** The GLA defines Sites of Local Importance for Nature Conservation as those that *'...are, or may be, of particular value to people nearby (such as residents or schools)...'* It also notes that *'Only those sites that provide a significant contribution to the ecology of an area are identified'*. As shown in Table 1 below the scattered mature tree habitats at the site are of value for nature conservation in this context, as despite their limited extent they are locally uncommon. Therefore, the site does contain some (limited) habitats of local importance for nature conservation. The site is freely accessible by local residents and other members of the public, and is therefore of value to the local community as an area of open space and for enjoying common wildlife.
- 4.11 **Features of importance within the zone of influence only (within the site and immediate vicinity):** With reference to Paragraph 4.9 above and Table 1 below it can be seen that the following habitats at the site are of value within the site and immediate vicinity only: amenity grassland, introduced shrub and dense scrub. The habitat survey, data search and level of connectivity to suitable habitat indicate that the site's importance for invertebrates is also at this geographic level.
- 4.12 **Secondary or supporting value:** The site forms part of the ecological corridor shared with Surrey Canal Walk and also supports the mosaic of habitats present within this area.

EVALUATION USING LOCAL CRITERIA

4.13 Table 1 below provides an evaluation using GLA criteria for designation of non-statutory wildlife sites. The application of local criteria to the site allows a more complete assessment of whether they are of significance for nature conservation at the regional, borough or local scale.

Table 1: Evaluation of nature conservation interest at Jowett Street Park using GLA criteria

GLA Criteria	Remarks
Representation	The site comprises areas of scattered mature and young trees, amenity grassland and amenity planting; habitats that are typical of inner urban residential areas in terms of their wildlife value. The site is likely to support a limited and typical assemblage of widespread bird and invertebrate species and low populations of widespread bat species.
Habitat rarity	The site was dominated by amenity grassland, mature and young planted trees, with smaller areas of planted shrubs, herbaceous perennials and scrub. While none of these habitats are rare in the London and borough context, based on a review of aerial photography this habitat mosaic is locally uncommon.
Species rarity	No rare plants were recorded at the park, and it lacks habitat likely to support rare invertebrates or birds, although some common but declining bird species covered by UK and London BAPs are likely to be present.
Habitat richness	The site supported a limited range of locally uncommon habitats comprising mature trees of a low number of species.
Species richness	The site did not support a diverse flora and the site's location and the nature and extent of habitats present indicate that it will not support diverse assemblages of bats, birds or invertebrates.
Size	All habitats at the site were of limited extent which reduces the potential for large populations or diverse assemblages of species
Important populations of species	The site may support populations of widespread bird species including certain BAP species, but the limited extent of habitats present will limit population size and significance for nature conservation.
Ancient character	Not applicable. All habitats at the site are of recent origin.
Fragility	All habitats at the site are resilient to most impacts other than extreme disturbance, drought or gross inputs of pollution. Due to the site's location all fauna present will be habituated to noise, night-time lighting, disturbance etc. Therefore none of the species and habitats at the site are of conservation significance due to their fragility.
Recreatibility	All habitats at the site are readily recreatable in the medium term including mature trees likely to be c40 years old.
Typical urban character	The site is typical of urban areas; however urban habitats of high value for nature conservation such as canals, species rich wasteland and old parkland are not present.

Table 1: Evaluation of nature conservation interest at Jowett Street Park using GLA criteria

GLA Criteria	Remarks
Cultural or historic character	Not applicable
Geographic position	The site forms part of Surrey Canal Walk ecological corridor.
Access	Full public access.
Use	Recreational
Potential	Enhancements to planting and maintenance could provide opportunities to implement the London BAPs for Parks and Urban Greenspaces and the Southwark BAP.
Aesthetic appeal	The site is actively used as a public park and is an attractive open area for the public.

4.14 The evaluation as a whole shows that habitats at Jowett Street Park do not meet local criteria for designating Sites of Metropolitan, or Borough Importance for Nature Conservation. However, the site does meet some criteria for Local Importance for Nature Conservation. The standards for designating sites at each of these geographic levels are summarised in Paragraphs 4.4 to 4.9 above.

5 Conclusions and Recommendations

CONCLUSIONS

- 5.1 The habitats at Jowett Street Park were of ecological importance in the context of the local area only. The habitats at the site corresponded with the following London BAP Habitat types: Parks and Urban Greenspaces, and the Southwark BAP. These BAPs relate largely to opportunities for enhancement rather than current ecological value of the habitats covered.
- 5.2 The site is likely to support certain common and widespread but declining species of bird included house sparrow which is a UK, London and Southwark BAP species. A review of existing data, the status of these species in London and Southwark, and assessment of onsite and surrounding habitat suggests that the populations present are of ecological importance in the local (Peckham) context.
- 5.3 Recommendations are made below to enhance the nature conservation value of Jowett Street Park. These aim to enhance the site by improving the quality of existing London and Southwark BAP habitats, with specific aims to enhance for BAP species such as house sparrow, dunnock *Prunella modularis* and starling *Sturnus vulgaris*, and for Southwark's flagship species associated with uncut grassland such as buttercups and certain species of butterfly .

RECOMMENDATIONS

- 5.4 *Bats:* In order to avoid potential impacts to roosting bats it is recommended that any trees to be removed or pruned are first assessed for their likelihood to support bat roosts. If these surveys cannot rule out the presence of bat roosts, emergence and activity surveys will be required which must be carried between May and October.
- 5.5 *Breeding birds:* The site contains scattered trees, introduced shrub, dense scrub, grassland of high potential to support nesting and foraging birds. Birds are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence, amongst other things, to kill, injure or take any wild bird or take, damage or destroy the nest of any wild bird while it is in use or being built. Measures necessary to avoid the destruction of nests, eggs and young birds will be required if enhancement measures are undertaken that would affect trees, scrub and hedges.

5.6 **Mature Trees:** Any trees or mature shrubs that are likely to be impacted by proposals should be protected in accordance with BS 5837 2012 *Trees in relation to design, demolition and construction*.

Habitat enhancements

5.7 The following enhancement measures are recommended in line with the relevant London and Southwark BAPs:

5.8 **Landscape planting enhancements:** Additional wildlife garden planting should be incorporated into site designs to complement existing trees, scrub, introduced shrub, and amenity grassland to provide foraging, cover and nesting for birds and invertebrates, including BAP species house sparrow and song thrush. Any planting scheme should utilise a high percentage of native tree, shrub and climbing species, providing nectar, pollen and berries. Climbers could be planted along the edges of fences and/or walls where they will provide a green façade of potential value to foraging birds and insects.

5.9 Where horticultural stock that requires hard pruning is used such as willow *Salix* sp., dogwood *Cornus* sp., hazel *Corylus* sp. ash, poplar *Populus* sp. etc., small sections should be cut to the ground (coppiced) on an alternating basis e.g. every 5-10 years, to ensure that a good proportion of flowering/fruitlet growth is present in any given season. Works should be carried out in the late winter when disturbance to wildlife and removal of flowering or fruiting material providing valuable forage will be minimal. The arisings could be used to create habitat piles in existing areas of tree/shrub planting or other undisturbed areas of the site.

5.10 Where possible trees, introduced shrub and dense scrub should be under-planted with shrubs and herbaceous material to create greater structure within the planting and to provide denser cover for wildlife. Enhancements to the existing tree lines and formal beds should aim to provide a continuous shrub layer of dense foliage under larger canopy trees. Important shrub layer species include hazel, oak and honeysuckle; others of value are ash, blackthorn and hawthorn. Dead wood should be retained as invertebrate habitat in undisturbed areas of the site.

5.11 The decline in house sparrows has been linked to reduction in invertebrate prey for chicks and the inclusion of planting likely to provide suitable foraging is recommended. Landscaping should include native deciduous shrubs and trees and a diversity of grasses

and herbaceous perennials to set seed and remain in situ throughout the winter would promote the abundance of a range of foliar invertebrate species.

- 5.12 House sparrows require dense cover for nesting that could be achieved through additional dense plantings of mixed deciduous and evergreen shrubs. This would also provide nesting habitat for dunnock *Prunella modularis* and the inclusion of berrying species would benefit foraging starling *Sturnus vulgaris*, both London BAP species. The use of bark chippings or other organic mulch would also improve foraging for all three species.
- 5.13 **Enhancement of amenity grassland for invertebrates, reptiles and amphibians:** The inclusion of a good variety of low-growing wildflowers such as birds-foot-trefoil *Lotus corniculatus*, selfheal *Prunella vulgaris*, ladies bedstraw *Galium verum* and hawkbits *Leontodon* spp. to create a daisy lawn in any suitable areas within the site. This will provide foraging for a variety of widespread invertebrates throughout the summer if cutting is not too frequent. This would enhance the quality of such grassland and potentially improve habitat for Southwark flagship plant and invertebrate species (London Borough of Southwark, 2007): buttercups, holly blue and meadow brown. A list of recommended species is provided in Appendix 3.
- 5.14 Reptile and amphibian hibernacula could be created in undisturbed margins; ideally several should be created in undisturbed areas facing south – southeast. Hibernacula should be at least 0.5m below ground and 1.5m above, and a minimum of 1.5m wide. These should be composed of rubble in base, then logs, soil and rubble should be placed carefully on top, allowing small pockets of air. Turf could then be placed on top of the hibernacula, and planted with bulbs and wildflowers if required to improve the finished look. These reptile hibernacula will also be utilised by amphibians and common invertebrate species throughout the year.
- 5.15 **Artificial bird boxes:** To provide bird nesting opportunities a minimum of five bird nesting boxes could be erected on any existing standard trees, as follows:
- Woodcrete bird boxes (such as Schwegler) are recommended as they include a broad range of designs, are long lasting compared to wooden boxes and insulate occupants from extremes of temperature and condensation. Boxes should be placed apart from one another, ideally on different building facades/fences/trees and not be lit by any new lighting proposals for the site.

- Erect open-fronted and hole-fronted bird nesting boxes on suitable trees, buildings and fences. Boxes will require annual maintenance which is normally carried out over the winter months. The following models are most appropriate: 1SP, 1B hole-fronted (26mm and 32mm entrance hole), and 2H open-fronted (120mm opening).
- Ideally boxes should be positioned so they face in an easterly or westerly direction, out of direct sunlight. They should be at least 3m above ground level (preferably 3-6m), and away from bird feeders and a discrete distance away from other nest boxes, ideally on different facades. Colony boxes, such as the Schwegler 1SP sparrow terrace can be placed adjacent to one another.
- They should be attached to trees/building/fences using Schwegler fixings. Boxes should be cleaned annually in the autumn with old nests removed annually between October and January, and boxes repaired or replaced as necessary.

5.16 *Good horticultural practice:* Good horticultural practice should be utilised in any landscaping scheme and should include the following simple methods to minimise off-site ecological impacts:

- The use of peat-free composts and soil conditioners to reduce the loss of important peat bogs.
- Feeding of plants using organic based fertilisers and improving the soil structure by incorporating organic material, preferably composted waste.
- The use of mulches to lock moisture into the soil. 'Water-wise gardening' helps reduce consumption of drinking water which is especially important during drought periods.
- The use of pesticides (herbicides, insecticides, fungicides and slug pellets etc) should be discouraged to prevent cumulative fatal effects to animals via the food chain, particularly invertebrates, birds and/or mammals. Any pesticides used should be non-residual.

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Appendix 1: Habitat Survey Map



ArcGIS Desktop 10.0 Layout - Ecology Consultancy v.6.1.6.1.B.mxd
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The Ecology Consultancy

Job title
**Proposed SINCs in Peckham
 Jowett Street Park**
 ECL Job no. 120681

Client
London Borough of Southwark

Drawing title
HABITAT SURVEY MAP

Section: N/A Scale (at A3) 1:600

Date of survey
 26/07/2012

Surveyor
 Alexandra Davey & Sabrina Bremner

Drawn
 AB/NS/GS Checked
 CC

Approved
 SB Date
 13/09/2012

KEY

- Site boundary
- Scattered trees
- Amenity grassland
- Introduced shrub
- Dense scrub
- Hardstanding
- Target note

N

This plan is provided solely for the purpose of supporting the description of the ecological features of the site as contained in the accompanying report

Appendix 2: Plant Species List

Plant Species List for Jowett Street Park compiled from the Preliminary Ecological Appraisal survey carried out on the 26th July 2012

Scientific nomenclature follows Stace (2010) for vascular plant species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. Please note that this plant species list was generated as part of a Preliminary Ecological Appraisal, does not constitute a full botanical survey and should be read in conjunction with the associated report.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare
p=planted, s=seedling or sucker, t=tree

Latin Name	Common name	Abundance	Qualifiers
<i>Acer platanoides</i>	Norway maple	O	tp
<i>Achillea millefolium</i>	Yarrow	F	
<i>Aesculus hippocastanum</i>	Horse-chestnut	O	tp
<i>Agapanthus africanus</i>	African blue lily	R	p
<i>Anemone hupehensis</i> var. <i>japonica</i>	Japanese anemone	R	p
<i>Ballota nigra</i>	Black horehound	R	
<i>Bambusoideae</i>	Bamboo	R	p
<i>Bellis perennis</i>	Daisy	O	
<i>Buddleia davidii</i>	Butterfly bush	O	s
<i>Calystegia sepium</i>	Hedge bindweed	O	
<i>Carex sp.</i>	Sedge	R	p
<i>Conyza canadensis</i>	Canadian fleabane	R	
<i>Cortaderia selloana</i>	Pampas-grass	R	p
<i>Crataegus monogyna</i>	Hawthorn	O	stp
<i>Crocsmia x crocosmiflora</i>	Montbretia	R	p
<i>Diploaxis muralis</i>	Annual wall-rocket	O	
<i>Euphorbia peplus</i>	Petty spurge	O	
<i>Festuca rubra</i>	Red fescue	O	
<i>Ficus carica</i>	Fig	R	p
<i>Fraxinus excelsior</i>	Ash	F	tp
<i>Geranium dissectum</i>	Cut-leaved crane's-bill	O	
<i>Gleditsia tricanthos</i>	Honey-locust	O	tp
<i>Hedera helix</i>	Ivy	F	
<i>Helleborus foetidus</i>	Stinking hellebore	R	p
<i>Hieracium spp.</i>	Hawkweeds	R	
<i>Hordeum murinum</i>	Wall barley	O	

Latin Name	Common name	Abundance	Qualifiers
<i>Hypochaeris radicata</i>	Cat's-ear	O	
<i>Iris foetidissima</i>	Stinking iris	R	p
<i>Kniphofia sp.</i>	Red Hot Poker	R	p
<i>Ligustrum ovalifolium</i>	Garden privet	O	p
<i>Lolium perenne</i>	Perennial rye-grass	F	
<i>Malva sp.</i>	Mallow	O	
<i>Parthenocissus sp.</i>	Virginia-creeper	R	p
<i>Plantago lanceolata</i>	Ribwort plantain	R	
<i>Polystichum sp</i>	Shield-fern	R	p
<i>Prunus sp.</i>	Plum	O	tp
<i>Prunus spinosa</i>	Blackthorn	O	s
<i>Ranunculus repens</i>	Creeping buttercup	A	
<i>Rosa sp.</i>	Rose	R	p
<i>Rubus fruticosus agg.</i>	Bramble	F	s
<i>Sambucus nigra</i>	Elder	O	ts
<i>Senecio jacobaea</i>	Common ragwort	O	
<i>Stellaria media</i>	Common chickweed	R	
<i>Syringa vulgaris</i>	Lilac	O	tp
<i>Taraxacum sp.</i>	Dandelion	O	
<i>Tilia sp.</i>	Lime	O	tp
<i>Trifolium pratense</i>	Red clover	O	
<i>Trifolium repens</i>	White clover	O	
<i>Ulex europaeus</i>	Gorse	F	sp
<i>Urtica dioica</i>	Common nettle	F	

Appendix 3: Photographs

Photograph 1

View of park, from southern limit looking north west – small area of uncut grassland in background.



Photograph 2

View into centre of park showing mature trees and well maintained amenity grassland.



Appendix 4: Legislation & Planning Policy

Important notice: This section contains details of legislation and planning policy applicable in Britain only (i.e. not including the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law.

A NATIONAL LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive⁵ is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991;
- Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment & Rural Communities (NERC) Act 2006;
- Protection of Badgers Act 1992;
- Wild Mammals (Protection) Act 1996.

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected

⁵ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2010 (which includes smooth snake, sand lizard, great crested newt and natterjack toad), all bat species, otter, dormouse and some plant species) are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Directive, the term ‘deliberate’ is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.
- The Conservation of Habitats and Species Regulations 2010 does not define the act of ‘migration’ and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.
- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three ‘tests’: i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Bats

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:
 - a) to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young;
 - (ii) to hibernate or migrate³
 - b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also currently protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level);
- Intentional or reckless obstruction of access to any place of shelter or protection;
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to bats liable to affect development works?

A European Protected Species (EPS) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity of a local population.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy an egg of any wild bird;
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- Intentional or reckless disturbance of dependent young of such a bird.

How is the legislation pertaining to birds liable to affect development works?

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August⁶. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Those species of bird listed on Schedule 1 are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Wild Mammals (Protection) Act 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to:

- Mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

⁶ It should be noted that this is the main breeding period. Breeding activity may occur outwith this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

Invasive Plant Species

Certain species of plant, including Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera* are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Such species are generally non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to plant or otherwise cause these species to grow in the wild.

How is the legislation pertaining to invasive plants liable to affect development works?

Although it is not an offence to have these plants on your land *per se*, it is an offence to *cause* these species to grow in the wild. Therefore, if they are present on site and development activities (for example movement of spoil, disposal of cut waste or vehicular movements) have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures are in place to prevent this happening prior to the commencement of works.

B NATIONAL AND EUROPEAN LEGISLATION AFFORDED TO HABITATS

Statutory Designations: National

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory **Sites of Special Scientific Interest** (SSSIs) under the National Parks and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as **National Nature Reserves** which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (Natura 2000 network) and globally (such as Wetlands of International Importance). See subsequent sections for details of these designations. Improved provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of **Limestone Pavement Orders**, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of **Marine Nature Reserves**, for which byelaws must be made to protect them.

Statutory Designations: International

Special Protection Areas (SPAs), together with **Special Areas of Conservation** (SACs) form the **Natura 2000** network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species Regulations 2010. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SPAs in UK offshore waters (from 12-200nm).

The Government is obliged to identify and designate SACs under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora). These are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are protected under The Conservation of Habitats & Species Regulations 2010. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SACs in UK offshore waters (from 12-200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

Statutory Designations: Local

Under the National Parks and Access to the Countryside Act 1949 **Local Nature Reserves** (LNRs) may be declared by local authorities after consultation with the relevant countryside agency. LNRs are declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation, and provide opportunities for research and education and enjoyment of nature.

Non-Statutory Designations

Areas considered to be of local conservation interest may be designated by local authorities as a **Wildlife Site**, under a variety of names such as **County Wildlife Sites** (CWS), **Listed Wildlife Sites** (LWS), **Local Nature Conservation Sites** (LNCS), **Sites of Biological Importance** (SBIs), **Sites of Importance for Nature Conservation** (SINCs), or **Sites of Nature Conservation Importance** (SNICIs). The criteria for designation may vary between counties.

Together with the statutory designations, these are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined. The level of protection afforded to these sites through local planning policies and development frameworks may vary between counties.

Regionally Important Geological and Geomorphological Sites (RIGS) are the most important places for geology and geomorphology outside land holding statutory designations such as SSSIs. Locally-developed criteria are used to select these sites, according to their value for education, scientific study, historical significance or aesthetic qualities. As with local Wildlife Sites, RIGS are a material consideration when planning applications are being determined.

C NATIONAL PLANNING POLICY

National Planning Policy Framework

The National Planning Policy Framework replaces PPS9 (from April 2012) and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species – presumably those listed as UK Biodiversity Action Plan priority species – is also listed as a requirement of planning policy. In determining planning application,

planning authorities have a duty 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.

The Natural Environment and Rural Communities Act 2006 and The Biodiversity Duty

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

D REGIONAL AND LOCAL PLANNING POLICY

The London Plan, Spatial Development Strategy for Greater London, July 2011 contains the following policy relevant to the site.

Policy 7.19

Policy 7.19 provides specific commentary on the need for a positive contribution to the protection, enhancement, creation and management of biodiversity within development proposals with a particular emphasis on achieving biodiversity action plan targets. It states that the Mayor will work with all relevant partners to ensure a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity in support of the Mayor's Biodiversity Strategy. This means planning for nature from the beginning of the development process and taking opportunities for positive gains for nature through the layout, design and materials of development proposals and appropriate biodiversity action plans.... Development proposals should wherever possible, make a positive contribution to the protection, enhancement, creation and management of biodiversity, prioritise assisting in achieving targets in biodiversity action plans (BAPs) and/or improve access to nature in areas deficient in accessible wildlife sites. Development proposals should also not adversely affect the integrity of European sites, and be resisted where they have significant adverse impact on European or nationally designated sites or on the population or conservation

status of a protected species, or a priority species or habitat identified in a UK, London or appropriate regional BAP or borough BAP.

Southwark's Unitary Development Plan (2007) contains the following saved policies from Section 3: Environmental Principles that are relevant to the site:

Policy 3.1 Environmental effects

"Planning permission for the establishment of uses that would cause material adverse effects on the environment will not be granted, and proposals for activities that will have a material adverse impact on the environment and quality of life will be refused".

Policy 3.13 Urban design

"Principles of good urban design must be taken into account in all developments.....In designing new developments, consideration must be given to:

vi) Landscaping – Where appropriate, developments should include landscape design that enhances the area and biodiversity, for example through the use of green roofs"

Policy 3.26 Borough Open Land (BOL)

Within Borough Open Land planning permission will not be granted for development unless:

- i. It is ancillary to the use of the open space; and
- ii. It is small in scale; and
- iii. It does not detract from the site's open nature and character; and
- iv. It is required to enhance activities associated with the particular open space; and
- v. It positively contributes to the setting and quality of the open space.

Policy 3.28 Biodiversity

"The LPA will take biodiversity into account in its determination of all planning applications and will encourage the inclusion in developments of features which enhance biodiversity, requiring an ecological assessment where relevant.

Developments will not be permitted which would damage the nature conservation value of sites of importance for nature conservation (SINCs) and local nature reserves (LNRs) and/or damage habitats, populations of protected species or priority habitats/species identified in the United Kingdom, London or the Southwark biodiversity action plan. Where, exceptionally, such developments are permitted, the Council will seek mitigation and/or compensation for the damage to biodiversity.

Where new sites of importance for nature conservation and local nature reserves are identified, these sites will be afforded protection under this policy and policy 3.27, Other Open Spaces".

Reasons

The council has an obligation to protect biological diversity under national and international legislation, including the Convention on Biological Diversity (1992), The Habitats Directive (1992), National Parks and Access to the Countryside Act (1949) and the Wildlife and Countryside Act (1981). The council has a responsibility to protect and enhance biodiversity throughout Southwark and particularly to protect areas of nature conservation. Due to the intense pressure on land for development, it is important that areas of nature conservation value or ecological importance are identified and the flora and fauna associated with these areas are protected and enhanced as outlined in the council's biodiversity action plan.

Access to wildlife also enables people to experience wildlife in an otherwise intensely urban environment, promoting well-being and providing a number of educational benefits.

Sites of Importance for Nature Conservation and Local Nature Reserves are listed in Appendix 14.

Southwark Core Strategy Strategic Policy 11 – Open Spaces and Wildlife aims to...
“improve, protect and maintain a network of open spaces and green corridors that will make places attractive and provide sport, leisure and food growing opportunities for a growing population. We will protect and improve habitats for a variety of wildlife.

We will do this by

- *Continuing to protect important open spaces from inappropriate development. These will include parks, allotments, sports grounds, green chains, sites of importance for nature conservation (SINCS) and cemeteries. Large spaces of importance to all of London will be protected (Metropolitan Open Land) as well as smaller spaces of more borough-wide and local importance (Borough Open Land and Other Open Spaces)*
- *Protecting woodland and trees and improving the overall greenness of places, including through promoting gardens and local food growing.*
- *Promoting and improving access to and links between open spaces.*
- *Identifying and protecting open spaces that provide quiet areas and relative tranquillity.*
- *Requiring new development to help meet the needs of a growing population by providing space for children's play, gardens and other green areas and helping to improve the quality of and access to open spaces and trees, particularly in areas deficient in open space.*
- *Requiring new development to avoid harming protected and priority plants and animals and help improve and create habitat.”*

E UK BAP

In 1994 the UK Government published its response to the Convention on Biological Diversity that it signed along with over 150 other nations at the Rio Earth Summit in 1992. Biodiversity – the UK Action Plan (HM Government 1994) and subsequent publications (e.g. UK Steering Group 1995) set out a programme for the national Biodiversity Action Plan (BAP), including the development of targets for biodiversity, and the techniques and actions necessary to achieve them. The national BAP includes lists of species that are of conservation concern, either because they are rare in an international or national context or have undergone serious declines in their populations in recent years. Species Action Plans have been prepared or are in preparation for a many of these species, whilst Habitat Action Plans are being produced for important or characteristic habitats identified in the plan.

F REGIONAL AND LOCAL BAPS

The site is covered by the regional BAP for London and the local BAP for the London Borough of Southwark. The habitats and species covered by the BAPs are reproduced below:

- Parks & urban greenspaces
- Woodland
- Built Up Areas and Gardens
- House sparrow.
- Grassland
- Hedge & scrub

Appendix 5: Species of Value to Wildlife

ORNAMENTAL AND NATIVE SPECIES OF WILDLIFE VALUE

The list below gives some easily sourced plants which are of proven value to wildlife. It includes a number of ornamental species which are not native and can be used in combination with native species in more formal situations. In informal landscapes the emphasis should be on the use of native species.

Where ornamental trees and shrub planting are proposed it is recommended that species producing abundant nectar rich flowers or berries palatable to birds are used. Such species include (non-invasive) varieties of Cotoneaster⁷ and firethorn *Pyracantha*. Additionally climbers should be planted on bare walls and fences where they will attract foraging birds and invertebrates.

Different horticultural varieties of the following species are commonly available, but where possible standard stock is advised, especially for native species. Single flowering plants should be chosen over double flowering plants. With exception of * (biennials) and ** (annuals) all species are perennial. **E** = Exotic, **N** = Native. Note: the list includes species that may be harmful if handled or ingested. Numerous sources of further information are available. See for instance *Poisonous Plants and Fungi: An Illustrated Guide*, M.R. Cooper, A.W. Johnson and E. Dauncey, TSO: 2nd edition, 2003 ISBN 100117028614

Tree

Cherry *Prunus spp.*, *P. avium* (wild cherry) **N**

Ash *Fraxinus excelsior* **N**

Crab apple *Malus sylvestris* **N**

Pear *Pyrus spp.* *Pyrus calleryana*

Small-leaved lime *Tilia cordata* (or similar hybrid) **N**

Silver birch *Betula pendula* **N**

Yew *Taxus baccata* **N**

Foxglove tree *Pawlonia tomentosa* **E**

Lacebarks *Hoheria spp.* *H. glabrata*, *H. lyallii* **E**

Tulip tree *Liriodendron tulipifera* **E**

nb: many of the shrub species below will form small trees when mature

Large Shrubs

⁷ Please refer to <http://www.defra.gov.uk/wildlife-pets/wildlife/management/non-native/documents/schedule9-list.pdf> for invasive species that should be avoided in landscaping plans.

Shrubby veronica *Hebe spp.* **E**
 Hawthorn *Crataegus monogyna* **N**
 Blackthorn *Prunus spinosa* **N**
 Rose *Rosa canina* (dog rose) *R. arvensis* (field rose) *R. pimpinellifolia* (burnet rose) **N**
 Elder *Sambucus nigra* **N**
 California lilac *Ceanothus arborea / spp.* **E**
 Privet *Ligustrum vulgare* **N/E**
 Common holly *Ilex aquifolium* **N**
 Barberry *Berberis darwinii, B. thunbergii, B. x stenophylla* **E**
 Daisy bush *Olearia x hastii, O. macrodonta* and *O. traversii* **E**
 Firethorn *Pyracantha coccinea* **E**
 Hazel *Corylus avellana* **N**
 Guelder rose *Viburnum opulus* **N**
 Wayfaring tree *Viburnum lantana* **N**
 Buddleia *Buddleja davidii, B. alternifolia, B. globosa* **E**
 Dogwood *Cornus sanguinea* **N**
 Broom *Cytisus scoparius* **N**
 Mexican orange bush *Choisya ternata* **E**
 Laurustinus *Viburnum tinus* **E**
 Portuguese laurel *Prunus lusitanica* **E**
 Flowering currant *Ribes sanguineum* **E**
 Cherry laurel *Prunus laurocerasus* **E**
 Escallonia *Escallonia macrantha* **E**
 Hardy fuchsia *Fuchsia magellanica* **E**
 Buckthorn *Rhamnus cathartica* **N**
 Spindle *Euonymus europaeus* **N**
 Tutsan *Hypericum androsaemum* **N**
 Yew *Taxus baccata* **N**

Herbaceous perennials and small shrubs

Tree mallow *Lavatera spp. L. olblio, L. thuringiaca* **E**
 Ice plant *Sedum spectabile* **E**
 Lavender *Lavandula angustifolia, L. x intermedia* **E**
 Globe thistle *Echinopsis ritro* **E**
 Foxglove *Digitalis purpurea* or D. lutea, D. x mertonensis* **N/E**
 Michaelmas daisy *Aster novi-belgii* **E**

Teasel *Dipsacus fullonum****N**
Sunflowers *Helianthus annuus*****E**
Red valerian *Centranthus rubra* **E**
Hemp agrimony *Eupatoria cannabinum* **N**
Common knapweed *Centaurea nigra* **N**
Black-eyed susan *Rudbeckia hirta*** or *R. fulgida* **E**
Rosemary *Rosmarinus officinalis* **E**
Rock rose *Cistus spp.* **E**

Climbers

Jasmine *Jasminum officinale* **E**
Ivy *Hedera helix* **N**
Climbing hydrangea *Hydrangea petiolaris* **E**
Honeysuckle *Lonicera periclymenum* or *L. japonica*, *L. fragrantissima*, *L. standishii* **N/E**
Spindle *Euonymus spp. E. fortunei* **N/E**
Clematis spp. *Clematis vitalba* or *C. armandii*, *C. alpina*, *C. montana*, *C. tangutica* **N/E**
Firethorn *Pyracantha atalantioides* **E**
Nasturtium *Tropaeolum majus*****E**



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Peckham and Nunhead AAP: Sites of Importance for Nature Conservation
background paper - appendices

**Appendix 7:
Kirkwood Road management plan 2007**

1. Introduction

This plan has been compiled by London Conservation Services (LCS) under contract to the London Borough of Southwark (LBS). The plan was then compiled by Alan Scott of Complete Ecology Limited following a vegetation survey carried out in November 2007

This plan covers the period of the next 5 years (2008 to 2013). The habitats and species present are described and the management required to preserve and enhance the wildlife value of the site is detailed.

2. Description

2.1 General Information

2.1.1 Name

Kirkwood Road Nature Garden

2.1.2 Location

The site is situated in Peckham in the London Borough of Southwark, approximately 500m east of Peckham town centre.

2.1.3 Area

0.3 Hectares (estimate)

2.1.4 Grid Reference

TQ 347 765

2.1.5 Access

The site is open to the public at all times via gates from Cossall walk and Bidwel Street.

2.1.6 Land Tenure

London Borough of Southwark holds the freehold.

2.1.7 Status

Kirkwood Road Nature Garden has no official designation in terms of its nature conservation or wildlife value.

2.1.8 Public Rights of Way

Although it is open to the public there are no public rights of way through the site.

2.1.9 Planning Authority:

London Borough of Southwark.

2.2 Biological Description

A habitat and vegetation survey of Kirkwood Road Nature Garden was carried out in November 2007. The survey followed standard phase 1 habitat survey methodology, as modified for Greater London by the former London Ecology Unit and adopted by the Greater London Authority (LEU 1994). The reserve was traversed on foot and constituent habitats were described and mapped and a list of plant species compiled. The timing of the survey (November) means that many species would be missed and so the list is far from complete. A spring/summer survey would be desirable to augment the species list.

2.2.1 Habitats

Scientific names are given at the first mention of a species – thereafter English names only are used.

2.2.1.1 Woodland/scrub (Compartment 1)

Most of the site is covered by woodland and scrub. This is of planted origin and there are mixture of native and non-native/ornamental species present. The mature trees on the site are mostly grey poplar *Populus x canescens* and crack willow *Salix fragilis*. These two species are present in several places and dominate much of the canopy. Other, mostly younger tree species include sycamore *Acer pseudoplatanus*, beech *Fagus sylvatica*, silver birch *Betula pendula* and yew *Taxus baccata*. The understorey also has numerous shrub species including cherry laurel *Prunus laurocerasus*, hawthorn *Crataegus monogyna*, cherry *Prunus sp.*, holly *Ilex aquifolium*, ornamental box *Buxus sp.*, blackthorn *Prunus spinosa*, butterfly bush *Buddleia davidii*, elder *Sambucus nigra* and several ornamental non-native species. In one area (Sub-compartment 1a) there is a quite dense stand of hazel *Corylus avellana* which has obviously been coppiced in the past as all are multi stemmed. It appears that they were all coppiced at the same time as they are all the same size.

The ground flora is dominated in places by dense ivy *Hedera helix*. Elsewhere it is more sparse but has a greater variety of species, including bramble *Rubus fruticosus agg.*, black horehound *Ballota nigra*, annual meadow grass *Poa annua*, nettle *Urtica dioica* and cock's-foot *Dactylis glomerata*.

In the more open areas on the perimeter, along the edges of the paths and where the ground is disturbed ruderal species predominate, such as lesser burdock *Arctium minus agg.*, Guernsey fleabane *Conyza sumatrensis*, chickweed *Stellaria media*, groundsel *Senecio vulgaris*, annual mercury *Mercurialis annua* and cleavers *Galium aparine*.

The adjacent railway embankment supports an mature sycamore dominated woodland habitat. This compliments and enhances the value for the woodland and other habitats in the park. For example birds, foxes etc may use the park for foraging and the railway embankment as shelter where they are less disturbed.

2.2.1.2 Grassland (Compartment 2)

Some small grassland areas can be found in the park. These have an amenity grassland sward dominated by perennial ryegrass *Lolium perenne*. The few other species present include daisy *Bellis perennis*, ribwort plantain *Plantago lanceolata*, dove's-foot crane's-bill

Geranium molle, cock's-foot *Dactylis glomerata*, smooth meadow-grass *Poa pratensis* and dandelion *Taraxacum officinale* agg.

The grassland areas are all obviously mown on a regular basis during the growing season and the sward is very short.

2.2.1.3 Pond and ditch (Compartment 3)

At the eastern end of the site there is a small created pond, probably lined with a butyl or similar liner. It only held a small amount of water at the time of the survey and is likely to be dry in summer. It does however support some aquatic/marsh species, namely yellow flag *Iris pseudacorus* and watercress *Rorippa nasturtium-aquaticum*.

To the west of the open there is a shallow dry ditch which may have once fed the pond but is now completely dry. It is overhung with quite large crack willows which to judge by their multi stems have been coppiced in the past. This shading and the dry nature mean that no marsh plants appear to be present. Instead it has a sparse covering to grasses and some low bramble and nettle growth.

2.2.2 Fauna

2.2.2.1 Invertebrates

No records were made available.

2.2.2.2 Reptiles and Amphibians

No records were made available.

2.2.2.3 Birds

No records were made available.

2.2.2.4 Mammals

No records were made available.

2.3 Cultural Description

2.3.1 Paths and Access

Access to the site is via two gates, one at the eastern end and one at the west. These are connected by paths, which run throughout the length of the site. They are mostly surfaced with a hoggin-like material but in places there are some tarmac sections.

As the site is flat this does provide good access to the entire site but the path is too narrow in places to be classed as fully wheelchair accessible.

The only other access structure on the site is a wooden pedestrian bridge over the dry ditch in Compartment 3.

2.3.2 Boundaries

The boundaries are all in good condition. The eastern and western boundaries consist of good quality metal railings. In the north the site is again bounded by railings but these are set into the top of a low wall and to the south the park is separated from the railway embankment by a chainlink fence, also in good condition.

2.3.3 Seating

Several benches and sating areas exist on the site all of which are made of metal and in good condition.

2.3.4 Bins

Numerous metal bins are situated throughout the site, all of which are in good condition and appear to emptied regular.

Two dog bins are located inside the entrances and again are in good condition and appear to be emptied on as regular basis.

2.3.5 Sign

No signs are present on the site.

3. Evaluation

The habitats and features within the site are evaluated against a range of standard assessment criteria in table 1 below. These have been developed by the Greater London Authority and its predecessor the London Ecology Unit (GLA 2002).

Table 1: Evaluation of features against GLA criteria

Criterion	Remarks
Representation	The site supports typical examples of planted urban woodland/scrub and amenity grassland.
Habitat rarity	None of the habitats present at the site are rare or unusual.
Species rarity	No uncommon or London notable plant species were recorded from the site.
Habitat richness	Habitat richness is moderate, with areas of planted woodland/scrub, amenity grassland and a small pond.
Species richness	None of the habitats present at the site are species rich.
Size	The site extends over 0.3 hectares and as such is of sufficient size to be viable conservation unit, especially when taken in conjunction with the adjacent railway embankment.
Important populations of species	None known.
Ancient character	The woodland is clearly of secondary origin. All of the habitats present are of relatively recent origin.
Recreatability	All of the habitats present would be recreatable but woodland would take many years to reach its present maturity.
Typical urban character	The site has a typical urban character.
Cultural or historic character	None known.
Geographic position	The site is located in a densely populated area of south London, with few other areas of semi-natural open space. It is contiguous with areas of secondary sycamore woodland on the adjacent railway embankment
Access	There is free public access.
Use	The site is managed for nature conservation and recreation.
Potential	There is potential for woodland management and enhancement of the grassland areas and the pond.
Aesthetic appeal	The site is a pleasant area of greenspace in an otherwise urban neighbourhood.

4. References

Greater London Authority (2002) Connecting with London's nature: the Mayor's Biodiversity Strategy, Greater London Authority, London.

London Ecology Unit 1994 Habitat Survey for Greater London, London Ecology Unit, London.

London Wildlife Trust 2000 Stag beetle an advice Note for its Conservation in London

Stace, C., 1997 New Flora of the British Isles, 2nd Edition, Cambridge University Press, Cambridge.

Kirby, P. (1992) Habitat Management for Invertebrates: A Practical Handbook. Royal Society for the Protection of Birds, Sandy.

5. Ideal Management Objectives

The general long-term aims are to conserve the existing nature conservation interest of the site and to enhance or restore this where appropriate. These aims incorporate the following ideal management objectives:

To conserve the existing biodiversity of the reserve, and enhance it where appropriate.

- To manage the habitats present to conserve and improve their value for biodiversity
- To monitor populations of the reserve's biodiversity to assess progress of conservation management.

To maintain the reserve for the quiet enjoyment and understanding by people.

- To maintain pedestrian access through the reserve in good order.
- To provide information on the ecological value of the reserve.
- To promote the reserve as an educational resource for people of all ages.

6. Policy

6.1 *General Principles on Ecological Issues*

6.1.1 Survey and monitoring

It is essential that all management work is recorded and monitored in order to be able to ensure that the work carried out is of benefit to the wildlife on the site and to visitors. Management tasks should be recorded and an annual report of work produced. It is therefore necessary to know what species and habitats are already on the site. The vegetation of the site was surveyed to produce this plan but only in the winter when many species would be missed and there is very little information on the fauna of the site. It is recommended that a further survey of them vegetation/habitats is carried out in the spring/summer and the management amended if required. Ideally vegetation/habitat surveys and broad-based invertebrate surveys should be carried out every 5 years and regular bird monitoring should be carried out on an ongoing basis if suitable volunteers can be found. Reptile and amphibian and mammal (especially bats) surveys would also be desirable. There are some groups where little, if any, information prevails – e.g. molluscs, annelids, micro-moths, etc. – and surveying of these should be undertaken as and when resources permit.

All surveying should conform to standardised techniques, from which accurate and relevant data can be drawn. Monitoring, likewise, should conform to standardised methodology. The London Ecology Unit/Greater London Authority bird monitoring transect and butterfly transects should also be considered.

6.1.2 Species recording

Ideally biological data recorded on site should be made available to Greenspace Information for Greater London (GIGL). Records of unusual sightings, especially birds and invertebrates, should also be relayed quickly to the appropriate London Natural History Society recorders.

6.1.3 Dead Wood

There is now a considerable body of knowledge regarding the value of standing and fallen dead and dying timber. It is an essential habitat for many species, especially invertebrates, bats, birds, bryophytes and fungi. Standing dead wood is also important for woodpeckers and other birds for feeding and nesting. Removal of dead wood and 'tidying-up' leads to relatively sterile conditions and takes away an essential part of the woodland ecology. The aim is to provide as much dead wood as feasible - lying, standing, and hanging - without compromising other management aims.

Hollow trees are of particularly high value and often more stable than other trees. Normal arboricultural practice is to remove dead or hollow trees for safety reasons. However in a wildlife site they should be retained wherever possible. If safety work is required they should be cut as far above the ground as possible to leave the hollow trunk standing. Dead wood should not be tidied away or cut from trees unless clearly dangerous. Cut timber should be left lying on the ground preferably in partial shade, and normally simply where it has fallen.

Ivy climbing up trees should not be cleared unless there is a real danger of the weight causing the tree to fall. Ivy provides a valuable habitat for invertebrates, a late winter food source for many birds and roosting opportunities for bats and owls.

However, standing dead wood can be a safety hazard and this must always take precedence in areas of high public use. Consequently any trees which are in a demonstrably unsafe condition must be made safe especially where they are near boundaries or footpaths.

Regular arboricultural inspections should be carried out to ensure that trees do not present a hazard to members of the public. Any dead or dying trees that pose a safety hazard by being situated close to a path or any other well-used area should be felled, preferably at head height (or above) to retain some standing dead wood. The cut timber should be left on site, and allowed to accumulate randomly across the site and ideally maintained in contact with damp soil in a variety of shaded and open areas. Brushings (small cut material) can be used to form dead hedges or woodpiles in strategic locations, which may also help to deter access to certain areas.

Information should be provided for visitors about the role of dead wood in the reserve and that they should be aware of the potential hazard that it may pose to those who stray off the designated paths.

6.1.4 Introductions, translocations and planting

Any planting should only be of native species, preferably of local provenance.

There should be a presumption against the introduction of animals into the site. If any introductions are considered in order to meet management objectives, reference should be made to policies of relevant organisations, e.g. the London Wildlife Trust's Translocation Policy.

6.1.5 Fires

There should be a general presumption against burning any material on the reserve.

6.2. *General Principles on Amenity Issues*

6.2.1 Paths

A clearly defined and well maintained path is the best way of reducing trampling of sensitive vegetation and will ensure that people can enjoy their visit and not have an adverse effect. Ideally paths should be widened to provide full wheelchair access.

6.2.2 General Safety

All boundaries, footpaths and other visitor facilities need to be inspected regularly and any necessary remedial action taken immediately. Regular inspections must also be carried out of all trees near boundaries and footpaths, to ensure they are in a safe condition, i.e. not about to fall over or shed dead branches onto an area frequently used by the public. Appropriate action should be taken but in recognition that standing dead wood is an essential feature of the woodland ecosystem (see section on Dead Wood 6.1.3).

6.2.3 Access

The site is presently open access at all times. LBS therefore has a responsibility to ensure that all footpaths and other visitor facilities are in a safe condition at all times.

6.2.4 Litter

Litter makes a site look untidy and uncared for and can spoil the enjoyment of visitors. Some litter can also be unsafe, or lethal to small mammals and some invertebrates. Litter should therefore be cleared and the bins emptied on a regular basis

6.2.5 Dogs

Visitors to the reserve should be encouraged to keep their dogs on a leash to minimise disturbance to wildlife. Fouling by dogs presents a problem and visitors should be requested not to allow their animals to defecate within the site and to clear up after them if they do. Dog bins have be installed on site and appear to be emptied regularly.

6.2.6 Interpretation

It is important to provide visitors to the site with information about the wildlife that occurs there and the management that is being carried out to conserve it. This can be achieved in a variety of ways, for example through information leaflets, guided walks, articles in the local press etc.

The provision of information boards is a simple and direct way of informing people about the site. They can make people feel more welcome and positive about their visit and, by providing information about what is to be seen, can increase the level of enjoyment. Boards should be kept clean and in good repair and have a contact telephone number to report problems or other information about the site.

6.3. *General Principles on Management Practise*

6.3.1. Health and Safety and Risk Assessment

It is essential that all activities take place in a healthy and safe environment. Management of the site poses a number of potential risks, which any one working there must be aware of. The site must have an updated risk assessment to highlight any particular dangers to workers or visitors. This must be reviewed annually.

Tasks should normally be carried out by more than one person at any one time, especially if tools are being used.

All work tasks will require a risk assessment identifying hazards, level of risk and appropriate measures taken to avoid or reasonably reduce risk. Reference should be made to the relevant LBS safety policies and current risk assessments.

6.3.2. Herbicides

There should be a presumption against the use herbicides. By their very nature all herbicides are damaging to the environment to a greater or lesser extent, and can be a danger to the public. Consequently their use should be restricted to only necessary tasks and only if other management methods are inappropriate or have failed. It may sometimes

be necessary to treat the stumps of species scheduled for removal from the site where these have grown too large and where it would be a waste of resources to keep on cutting the plants back every year.

Similarly herbicides may be the only way to combat some invasive non-native species such as Japanese knotweed. If chemicals are used, the appropriate LBS policies and risk assessments must be followed.

7. Management

7.1 *Habitat/Species Management Proposals*

7.1.1 Woodland/scrub (Compartment 1)

Most of the site is covered by woodland and scrub. This is of planted origin and there is mixture of native and non-native/ornamental species present. The mature trees on the site are mostly grey poplar and crack willow. Other, mostly younger tree species include sycamore, ash, beech, silver birch and alder. The understorey also has numerous shrub species including hawthorn, plum (*Prunus* sp.), ornamental box, blackthorn, butterfly bush, elder and several ornamental non-native species. Sub-compartment 1a is a dense stand of previously coppiced hazel.

The ground flora is dominated in places by dense ivy. Elsewhere it is more open with a greater variety of species.

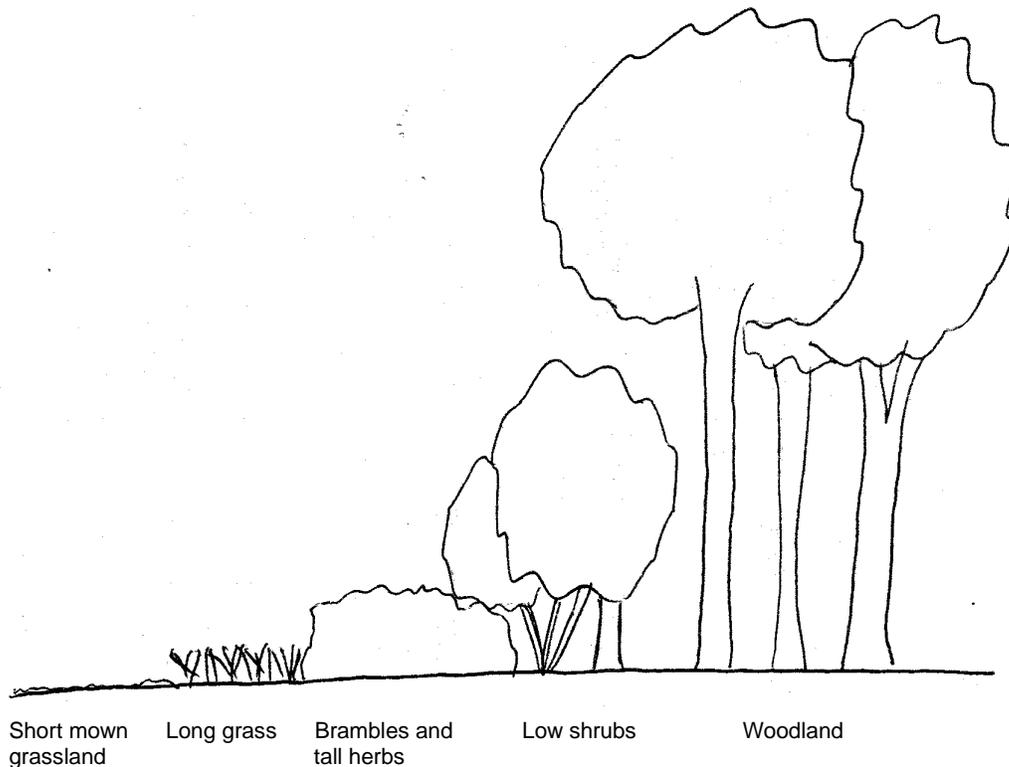
The main work required in the woodland should consist of any work necessary for the safety of visitors and neighbouring property. The site should be inspected annually by a suitable qualified arboriculturalist and any dangerous trees should be made safe as soon as possible. When this is done due regard should be made to the policy on dead wood (see above). Where possible dead timber should be left standing. Consequently trees should be made safe by removing limbs etc. if possible rather than felling the entire tree. All arisings should be retained on site as dead wood habitat.

Some coppicing is recommended, specifically on the woodland edges. Maximum ecological diversity can be promoted by creating a graded edge, with a more gradual transition from woodland through scrub to open grassland. Such edge habitats support rich invertebrate communities (Kirby 1992) and are favoured foraging and nesting habitats for many bird species.

This maximises the habitats in a small area thereby increasing the number of species which can be supported. For example many birds like to forage in the open grassy areas but require the dense shrubs as cover to hide from predators and the woodland for nesting sites. Some insects, such as butterflies, require different plants at different stages of their life; the adults could be reliant on nectar from plants which grow in the open sunny grassland but the larvae may require food plants which occur in the woodland.

Management should therefore consist of selectively coppicing back shrubs along the boundary of the woodland with the grassland and along the sides of the footpaths in the autumn/winter. Bays approximately 2 m deep should be cut back each year on rotation so that the entire boundary is coppiced every few years. This will create open bays of low vegetation interspersed with taller brambles and scrub areas. These will of course grow back but then other areas will be opened up by cutting back a different section the following year. Overall the edge will then consist of sections of tall herbs, brambles, scrub and grassy bays, ideal for many species.

Diagrammatic representation of woodland desired edge structure



The small stand of hazel (Sub-compartment 1a) would also benefit from coppicing to allow more light to reach the ground. Approx 20% of the hazels should be coppice each year on a rotation.

The ground flora of the woodland and shrub areas could also be diversified by planting native bulbs and wild flowers. Native bluebell *Hyacinthoides non-scripta* and other woodland species (e.g. bulbs of lesser celandine *Ranunculus ficaria*, wood anemone *Anemone nemorosa*, ramson's *Allium ursinum* and lord's-&-ladies *Arum maculatum* and plants of herb robert *Geranium robertianum*, red campion *Silene dioica*, foxglove *Digitalis purpurea* etc) would improve the diversity of the woodland and make an attractive display, especially in the spring.

Bird boxes can be an important resource for many woodland birds. They come in a variety of different sizes and shapes to suit different species but basically they all aim to create a the equivalent of a cavity in a tree or rocks etc. They are an important alternative if dead trees have to be felled and provide lasting nesting sites which are relatively safe from common garden predators such as cats, close to feeding areas. They also give essential winter protection for roosting birds. It is recommended that a range of boxes be installed on trees in all three areas. A mixture of hole fronted boxes (liked by tits, nuthatches and sparrows) and open fronted (preferred by robins and wrens) should be installed. A tawny owl box could also be erected in the reserve to encourage these birds to use the site.

Once installed the boxes should be cleaned out to remove the old nests, dead birds, etc. in the autumn.

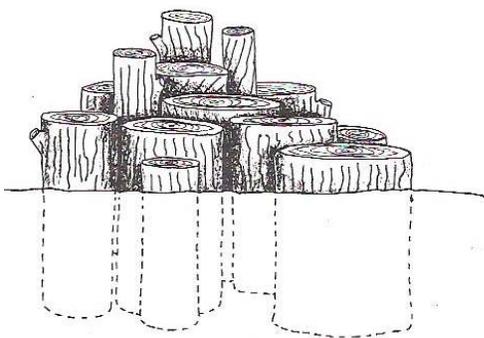
Bat boxes are similar in design to bird boxes but only have a narrow slit to allow the animals to enter. They can be important for roosting bats and are a good way to encourage bats to utilise the site. Once a box is used as roost it must not be disturbed as the animals are legal protected from disturbance.

Very little dead wood is present on the site, probably due to the relatively young age of the trees and possibly removal from site. It would be very desirable to introduce some larger dead logs to the site for fungi, invertebrates etc.

The stag beetle *Lucanus cervus* is a globally threatened species, protected under the Wildlife and Countryside Act 1981, as amended, and listed as a priority species for the UK and London Biodiversity Action Plans. South London is one of the most important areas in the UK for this species which has declined in the last 40 years. It is believed that the destruction of its key habitat (dead wood) through the 'tidying-up' of woodlands and parks is the prime reason for its decline, although in urban areas the impacts of traffic, human feet, cats and other predators are also significant (London Wildlife Trust 2000).

The stage beetle requires dead wood to complete its lifecycle. The eggs are laid underground by logs, or stumps of dead trees, and the larva (or grub) will spend up to seven years inside slowly growing in size. A wide range of woods are used, especially oak, but also ash, elm, sycamore, lime, hornbeam, apple, cherry and even some garden tree varieties. An exception, however, is coniferous species such as fir, pine and cypress, which they usually avoid. The larvae do not eat the wood of live trees and shrubs, and are thus not a pest. Instead they are an important decay agent, helping to return the minerals of dead plant material to the soil. Adults emerge from the soil beneath logs or stumps from mid-May until late July. Males emerge earlier and appear to be more active as they search for females to mate and can often be seen flying on summer evenings an hour or two before dusk. As adults they are short-lived and generally die after mating, although occasionally some may over-winter in places such as compost heaps.

Stag beetle Loggery (London Wildlife Trust 2000)



Loggery

Large logs (10-50cm diameter) of hardwood (e.g. oak, beech, sycamore, ash) with bark still attached sunk c60cm into the ground, in partially shaded areas.

To encourage this species it is therefore important to have suitable dead wood. The practice of leaving dead stumps standing will help with this (see section on dead wood). Also it is suggested that some stag beetle 'loggeries' are created as shown in the diagram.

7.1.2 Grassland (Compartment 2)

Some small amenity grassland areas can be found in the park. They are all obviously mown on a regular basis during the growing season with a very short sward dominated by perennial ryegrass. Very few other species are present but include daisy, ribwort plantain, dove's-foot crane's-bill, cock's-foot and dandelion.

It is recommended that the mowing regime in these areas is relaxed so that they are left uncut until late summer or early autumn (after the flowering season when the seeds had the chance to set) and then mown at a height of approx. 10 to 15cm. The cuttings should be raked off into piles in the adjacent woodland to keep the fertility of the soil low. In high fertility soils the sward tends to be taken dominated by fast growing species such as amenity grasses and nettles. In lower fertility soils everything grows slowly and therefore more species thrive leading to a more diverse sward. This will hopefully result in the development of a more varied species diversity. The resulting piles of cuttings provide good habitat for over-wintering amphibians and invertebrates.

Some areas of grassland should be left uncut each year to leave seed heads as food for birds and to provide cover for reptiles and invertebrates etc. It is therefore recommended that only 50% of the areas are cut each year.

7.1.3 Pond

The pond had water in at the time of the survey but is only very shallow and probably dries out completely in the summer. It supports a small amount of emergent vegetation (yellow flag and watercress) but is largely silted up with dead leaves etc.

One option would be to look at recreating a permanent pond by relining or repairing the existing liner. This however would be quite costly and the resultant pond would be both a safety risk and a target for vandals.

It is therefore recommended that the pond is managed as a seasonal pond (i.e. one which dries up in the summer). It will still support a range of wetland plants and ponds of this nature are actually quite good for many invertebrates.

The recommended management it therefore to hand dredge the leaves and silt out of the pond leaving the emergent plants. Further species could then be planted (e.g. purple loosestrife *Lythrum salicaria*, lesser pond sedge *Carex acutiformis*, water mint *Mentha aquatica* and marsh marigold *Caltha palustris*).

In future years 50% of the vegetation and silt in pond should be dredged each year in the late summer. This will prevent it silting up and becoming too dry.

The ditch leading south from the pond probably fed the pond at one time but it now totally dry. Instead of a marsh vegetation it now has a dry grassland flora with a variety of grass and some bramble. The vegetation is suppressed by some quite large crack willows, which overhang it. These are multi stemmed and have been coppiced in the past.

It is recommended the willows should be coppiced on a 4-year cycle, 25% each year. As there are about 8 willows this means that 2 could be coppiced each year. This management will open up the canopy allowing light to reach the ditch. Once this has been done the vegetation should be managed by strimming 50% of the ditch each year and raking off the cuttings in the autumn.

7.2 General Management

7.2.1 Litter

The site should be cleared of litter and the bins emptied on a regular basis.

7.2.2 Interpretation

Ideally interpretive boards should be installed inside each entrance to give information on the wildlife and management of the site. It should also have a contact telephone number to report problems or other information about the site. Once installed it should be inspected regularly and be kept clean and in good repair.

7.2.3 Surveys and Monitoring

Very few faunal records exist for the site, except invertebrates. It would be very desirable to carry out monitoring of birds and invertebrates if resources allow and suitable experienced volunteers can be found.

All work on the reserve should be recorded and monitored.

The vegetation of the site was surveyed to produce this plan but only in the winter when many species would be missed and there is very little information on the fauna of the site. It is recommended that a further survey of them vegetation/habitats is carried out in the spring/summer and the management amended if required.

The vegetation should be re-surveyed in the summer of 2011 and the management plan reviewed in 2012.

7.2.4 Safety

All boundaries, footpaths, and other visitor facilities need to be inspected annually and any necessary remedial action taken immediately. Inspections must also be carried out of all trees near boundaries and footpaths, to ensure they are in a safe condition, i.e. not about to fall over or shed dead branches onto an area frequently used by the public. Appropriate action should be taken but in recognition that standing dead wood is an essential feature of the woodland ecosystem (see section on Dead Wood 6.1.3).

7.2.5 Footpaths and Access

Access is good to all parts of the site and no improvements are necessary at present. However all paths should be inspected periodically and any repairs carried out. Similarly the bridge in Compartment 3 should be checked and maintained.

The footpath should be maintained by cutting the vegetation back to approximately 0.5m twice in the summer months (May and July). In the autumn (October) bays should be cut back approx. 2m along the paths sides (see above under woodland management, section 7.1.1). This management will keep the paths open for visitors, encourage the development of a less shade tolerant flora along the path sides and improve the woodland edge structure.

8 Work Programme

8.1 Five year work programme

	Financial Year					
	2007/ 08	2008/ 09	2009/ 10	2010/ 11	2011/ 12	2012/ 13
Compartment 1						
Coppice bays back 2m on boundary of grassland and along paths in autumn/winter		✓	✓	✓	✓	✓
Coppice approx. 20% of hazel stand in autumn/winter	1a	1a	1a	1a	1a	1a
Plant native woodland bulbs and flowers	✓					
Carry out safety and arboricultural inspection of reserve annually and implement any necessary safety/tree work	✓	✓	✓	✓	✓	✓
Install bird nest boxes and bat boxes	✓					
Clear out bird nest boxes annually in autumn/winter		✓	✓	✓	✓	✓
Introduce dead logs in suitable spots	✓					
Create stag beetle loggery	✓					
Compartment 2						
Mow 50% of grassland at height of 10 to 15cm in late summer/autumn and stack arisings in woodland		✓	✓	✓	✓	✓
Compartment 3						
Hand dredge leaves etc out of pond	✓					
Plant emergent vegetation into pond	✓					

edge

Dredge approx. 50% of vegetation and silt from pond in late summer		✓	✓	✓	✓	✓
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Coppice 25% of willows overhanging ditch in autumn/winter	✓	✓	✓	✓	✓	✓
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Strim 50% of vegetation the ditch annually in autumn/winter and rake off cuttings		✓	✓	✓	✓	✓
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General management

Clear litter and empty bins regularly	✓	✓	✓	✓	✓	✓
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Cut back vegetation to 0.5m along footpaths in May and July		✓	✓	✓	✓	✓
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Install information boards inside entrances	✓					
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Survey vegetation/habitats		✓				
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Re-survey the vegetation and review management plan						✓
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8.2 *Annual Work Programme Financial Year 2007/08*

<u>Management Task</u>	<u>Compartment</u>
Quarter 4 January – March	
Coppice bays back 2m on boundary of grassland and along paths	Throughout
Coppice approx. 20% of hazel stand	1a
Plant native woodland bulbs and flowers	1
Carry out safety and arboricultural inspection of reserve and implement any necessary safety/tree work	Throughout
Clear litter and empty bins regularly	Throughout
Install bird nest boxes and bat boxes	1
Introduce dead logs in suitable spots	1
Create stag beetle loggery	1
Hand dredge leaves etc out of pond	3
Plant emergent vegetation into pond edge	3
Coppice 25% of willows overhanging ditch	
Install information boards inside entrances	

8.3 Annual Work Programme Financial Year 2008/09

<u>Management Task</u>	<u>Compartment</u>
Quarter 1 April – June	
Cut back vegetation to 0.5m along footpaths in May	Throughout
Clear litter and empty bins regularly	Throughout
Survey vegetation/habitats	Throughout
Quarter 2 July – September	
Cut back vegetation to 0.5m along footpaths in July	Throughout
Clear litter and empty bins regularly	Throughout
Quarter 3 October – December	
Coppice bays back 2m on boundary of grassland and along paths	1
Coppice approx. 20% of hazel stand	1a
Clear out nest boxes	1
Mow 50% of grassland at height of 10 to 15cm in late summer/autumn and stack arisings in woodland	2
Dredge approx. 50% of vegetation and silt from pond	3
Coppice 25% of willows overhanging ditch	3
Strim 50% of vegetation the ditch and rake off cuttings	3
Clear litter and empty bins regularly	Throughout
Carry out safety and arboricultural inspection of reserve implement any necessary safety/tree work	Throughout
Quarter 4 January – March	
Clear litter and empty bins regularly	Throughout

8.4 Annual Work Programme Financial Year 2009/10

<u>Management Task</u>	<u>Compartment</u>
Quarter 1 April – June	
Cut back vegetation to 0.5m along footpaths in May	Throughout
Clear litter and empty bins regularly	Throughout
Quarter 2 July – September	
Cut back vegetation to 0.5m along footpaths in July	Throughout
Clear litter and empty bins regularly	Throughout
Quarter 3 October – December	
Coppice bays back 2m on boundary of grassland and along paths	1
Coppice approx. 20% of hazel stand	1a
Clear out nest boxes	1
Mow 50% of grassland at height of 10 to 15cm in late summer/autumn and stack arisings in woodland	2
Dredge approx. 50% of vegetation and silt from pond	3
Coppice 25% of willows overhanging ditch	3
Strim 50% of vegetation the ditch and rake off cuttings	3
Clear litter and empty bins regularly	Throughout
Carry out safety and arboricultural inspection of reserve implement any necessary safety/tree work	Throughout
Quarter 4 January – March	
Clear litter and empty bins regularly	Throughout

8.5 Annual Work Programme Financial Year 2010/11

<u>Management Task</u>	<u>Compartment</u>
Quarter 1 April – June	
Cut back vegetation to 0.5m along footpaths in May	Throughout
Clear litter and empty bins regularly	Throughout
Quarter 2 July – September	
Cut back vegetation to 0.5m along footpaths in July	Throughout
Clear litter and empty bins regularly	Throughout
Quarter 3 October – December	
Coppice bays back 2m on boundary of grassland and along paths	1
Coppice approx. 20% of hazel stand	1a
Clear out nest boxes	1
Mow 50% of grassland at height of 10 to 15cm in late summer/autumn and stack arisings in woodland	2
Dredge approx. 50% of vegetation and silt from pond	3
Coppice 25% of willows overhanging ditch	3
Strim 50% of vegetation the ditch and rake off cuttings	3
Clear litter and empty bins regularly	Throughout
Carry out safety and arboricultural inspection of reserve implement any necessary safety/tree work	Throughout
Quarter 4 January – March	
Clear litter and empty bins regularly	Throughout

8.6 *Annual Work Programme Financial Year 2011/12*

<u>Management Task</u>	<u>Compartment</u>
Quarter 1 April – June	
Cut back vegetation to 0.5m along footpaths in May	Throughout
Clear litter and empty bins regularly	Throughout
Quarter 2 July – September	
Cut back vegetation to 0.5m along footpaths in July	Throughout
Clear litter and empty bins regularly	Throughout
Quarter 3 October – December	
Coppice bays back 2m on boundary of grassland and along paths	1
Coppice approx. 20% of hazel stand	1a
Clear out nest boxes	1
Mow 50% of grassland at height of 10 to 15cm in late summer/autumn and stack arisings in woodland	2
Dredge approx. 50% of vegetation and silt from pond	3
Coppice 25% of willows overhanging ditch	3
Strim 50% of vegetation the ditch and rake off cuttings	3
Clear litter and empty bins regularly	Throughout
Carry out safety and arboricultural inspection of reserve implement any necessary safety/tree work	Throughout
Quarter 4 January – March	
Clear litter and empty bins regularly	Throughout

8.7 Annual Work Programme Financial Year 2012/13

<u>Management Task</u>	<u>Compartment</u>
Quarter 1 April – June	
Cut back vegetation to 0.5m along footpaths in May	Throughout
Clear litter and empty bins regularly	Throughout
Survey vegetation	Throughout
Quarter 2 July – September	
Cut back vegetation to 0.5m along footpaths in July	Throughout
Clear litter and empty bins regularly	Throughout
Quarter 3 October – December	
Coppice bays back 2m on boundary of grassland and along paths	1
Coppice approx. 20% of hazel stand	1a
Clear out nest boxes	1
Mow 50% of grassland at height of 10 to 15cm in late summer/autumn and stack arisings in woodland	2
Dredge approx. 50% of vegetation and silt from pond	3
Coppice 25% of willows overhanging ditch	3
Strim 50% of vegetation the ditch and rake off cuttings	3
Clear litter and empty bins regularly	Throughout
Carry out safety and arboricultural inspection of reserve implement any necessary safety/tree work	Throughout
Quarter 4 January – March	
Clear litter and empty bins regularly	Throughout
Review management plan	

Appendices

Appendix 1: Plant Species List for Dog Kennel Hill

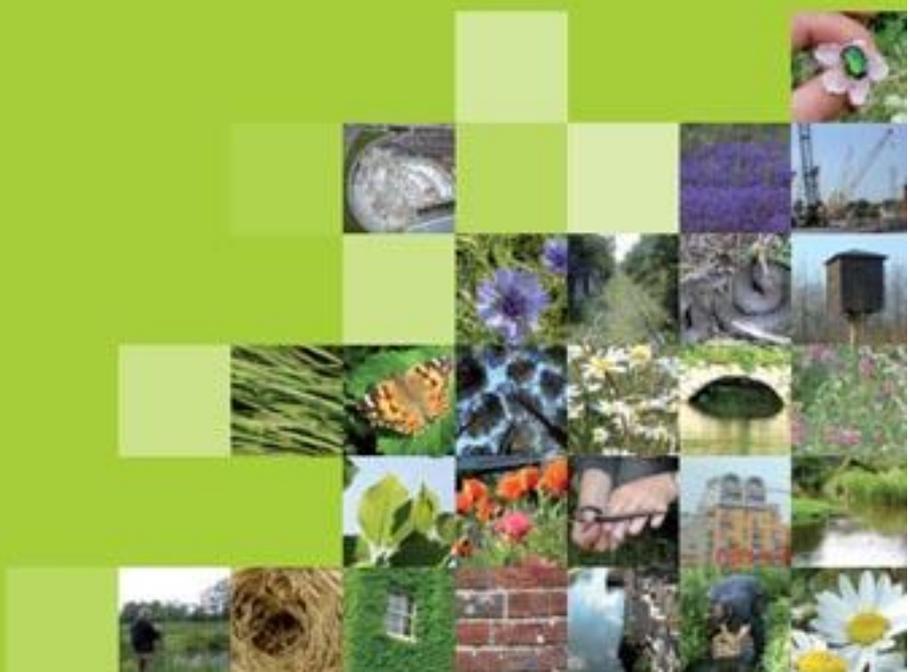
Common Name	Scientific name	Abundance ¹
Sycamore	<i>Acer pseudoplatanus</i>	F
Yarrow	<i>Achillea millefolium</i>	O
Lesser burdock	<i>Arctium minus agg.</i>	O
Mugwort	<i>Artemisia vulgaris</i>	O
Black horehound	<i>Ballota nigra</i>	F
Common daisy	<i>Bellis perennis</i>	O
Silver birch	<i>Betula pendula</i>	O
Butterfly bush	<i>Buddleja davidii</i>	F
Ornamental box	<i>Buxus sp.</i>	
Hedge bindweed	<i>Calystegia sepium</i>	O
Hornbeam	<i>Carpinus betulus</i>	R
Canadian fleabane	<i>Conyza sumatrensis</i>	O
Dogwood	<i>Cornus sp.</i>	R
Hazel	<i>Corylus avellana</i>	F
Hawthorn	<i>Crataegus monogyna</i>	O
Cock's-foot	<i>Dactylis glomerata</i>	O
Beech	<i>Fagus sylvatica</i>	O
Cleavers	<i>Galium aparine</i>	O
Dove's-foot crane's-bill	<i>Geranium molle</i>	O
Ivy	<i>Hedera helix</i>	A
Holly	<i>Ilex aquifolium</i>	O
Yellow flag	<i>Iris pseudacorus</i>	O
Privet	<i>Ligustrum ovalifolium</i>	O
Perennial rye-grass	<i>Lolium perenne</i>	F
Honeysuckle	<i>Lonicera sp.</i>	O
Common mallow	<i>Malva sylvestris</i>	O
Annual mercury	<i>Mercurialis annua</i>	O
Green alkanet	<i>Pentaglottis sempervirens</i>	R
Ribwort plantain	<i>Plantago lanceolata</i>	O
Great plantain	<i>Plantago major</i>	O
Annual meadow-Grass	<i>Poa annua</i>	F
Smooth meadow-grass	<i>Poa pratensis</i>	O
Grey poplar	<i>Populus x canescens</i>	F
Cherry laurel	<i>Prunus laurocerasus</i>	F
Cherry	<i>Prunus sp.</i>	F
Creeping buttercup	<i>Ranunculus repens</i>	O
Watercress	<i>Rorippa nasturtium-aquaticum</i>	
Dog rose	<i>Rosa canina</i>	O
Rose	<i>Rosa sp.</i>	O
Bramble	<i>Rubus fruticosus agg.</i>	F
Broad-leaved dock	<i>Rumex obtusifolius</i>	O
Crack willow	<i>Salix fragilis</i>	F
Elder	<i>Sambucus nigra</i>	F
Groundsel	<i>Senecio vulgaris</i>	O
Common chickweed	<i>Stellaria media</i>	O
Dandelion	<i>Taraxacum officinale agg.</i>	O

¹ **DAFOR Scale:** This provides an estimate of the relative abundance of each species recorded, whereby D = Dominant; A = Abundant; F = Frequent; O = Occasional and R = Rare.

Common Name	Scientific name	Abundance¹
Yew	<i>Taxus baccata</i>	F
White clover	<i>Trifolium repens</i>	O
Common nettle	<i>Urtica dioica</i>	F

Peckham and Nunhead AAP: Sites of Importance for Nature Conservation
background paper - appendices

Appendix 8:
Kirkwood Road Nature Garden phase 1 habitat survey



Kirkwood Road Nature Area, Southwark

Preliminary Ecological Appraisal

Report for London Borough of Southwark

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Contents

Executive Summary	1
1 Introduction	3
2 Methodology	5
3 Results	7
4 Evaluation	10
5 Conclusions and Recommendations	15
References	20
Appendix 1: Habitat Survey Map	22
Appendix 2: Plant Species List	24
Appendix 3: Legislation & Planning Policy	28
Appendix 4: Species of Value to Wildlife	40

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Executive Summary

The Ecology Consultancy was commissioned by the London Borough of Southwark to carry out an extended Phase 1 habitat survey and nature conservation evaluation of Kirkwood Nature Garden, Peckham. The survey was commissioned in order to support the proposals for designation of the garden as a Site of Importance for Nature Conservation as part of the Peckham and Nunhead Area Action Plan (London Borough of Southwark, 2012). The main findings of the surveys are as follows:

- The majority of the site comprised recent secondary broadleaved woodland, planted trees and shrubs, with smaller areas of amenity grassland, introduced shrub, a dry ditch and a pond. None of the habitats present were rare, long established or notable for other reasons but some, notably self-established secondary woodland are unlikely to be common locally.
- The site accords with the London BAP (Biodiversity Action Plan) for Parks and Urban Greenspaces and Woodland and the Southwark BAP. These BAPs relate mainly to opportunities for enhancement rather than current ecological value of the habitats present. A number of flagship species associated with the Southwark BAP are likely to be present and others could be encouraged through further habitat enhancements.
- Plant species diversity was low (c59 self established species), none were rare.
- Mature trees, shrubs, grassland, marginal vegetation, the pond, and the dry ditch present at the site are likely to provide foraging and breeding habitat for a range of widespread bird species including some Biodiversity Action Plan (BAP) species such as house sparrow. Although numbers present would be limited by available habitat there is the potential for locally significant populations to be present.
- Grassland, marginal vegetation, the pond, the dry ditch and woodland edge habitats are likely to support a range of widespread invertebrate species.
- Trees at the site were of low potential for roosting bats, and levels of light pollution were likely to be low. However, on-site bat foraging habitat and connectivity to off-site habitat were limited. It is therefore considered that the likelihood of roosting bats being present at the site is low.
- In summary the site is considered to be of local value for nature conservation due to the presence of recent secondary broadleaved woodland, grassland, standing water (the pond) and marginal vegetation and dry ditch. These habitats are of limited extent, with a non-native and planted component and are therefore readily re-creatable. Such habitats are likely to be common within the Borough but appear to be locally, i.e.

Peckham, uncommon and the close association of secondary woodland, dry ditch, marginal vegetation and standing water (the pond) is of note in the local context.

1 Introduction

BACKGROUND

- 1.1 The Ecology Consultancy was commissioned by London Borough of Southwark to produce a report on the baseline ecological conditions of Kirkwood Nature Garden, Peckham. The site is located within Peckham in the London Borough of Southwark and is centred on Ordnance Survey Grid Reference TQ 348 766. This report contains the results of an extended Phase 1 habitat survey carried out on the 26th July 2012. It describes the key ecological features of the site, provides an evaluation of the importance of ecological features at the site and makes recommendations for enhancing the ecological value of the site.

SCOPE OF THE REPORT

- 1.2 This report is based on a desk top study, and field survey using standard Phase 1 survey methodology (JNCC, 2010¹), as adapted for use in Greater London by the Greater London Authority (GLA 2002)². This approach is designed to identify broad habitat types at a site, to identify the potential of habitats to support protected species, and to assist in providing an overview of the ecological interest at a site. It is generally the most widely used and professionally recognised method for initial ecological site appraisal.
- 1.3 Ecological receptors at the site were evaluated according to a geographic scale as recommended in Institute of Ecology and Environmental Management's Guidelines for Ecological Impact Assessment in the United Kingdom³ and the GLA's criteria for selection of Sites of Importance for Nature Conservation (SINCs) in London.

SITE CONTEXT AND STATUS

- 1.4 The site was approximately 0.2 hectares (ha) in size and is a small public park and nature area. The survey area comprised young secondary woodland, dry ditch, marginal vegetation, standing water and amenity grassland, with small amounts of introduced shrub and bare ground.

¹ JNCC, (2010), Handbook for Phase 1 habitat survey -a technique for environmental audit, ISBN 0 86139 636 7

² Greater London Authority (GLA) (2002) Connecting with London's Nature, The Mayor's Biodiversity Strategy

³ Institute of Ecology and Environmental Management (2006) *Guidelines for Ecological Impact Assessment in the United Kingdom* (version 7 July 2006). <http://www.ieem.org.uk/ecia/index.html>

- 1.5 At the time of the survey the site was an unkempt and undisturbed with occasional piles of grass cuttings, dead wood, and some empty flower beds. This condition is generally considered to increase a site's potential value to wildlife.
- 1.6 The site is located on Cossall Walk. The surrounding area was dominated by residential homes and gardens, railways lines, light industry and secondary woodland along the adjacent railway line.
- 1.7 The site is not covered by statutory or non-statutory nature conservation designations. The most notable nearby ecological features are the Nunhead Cemetery Local Nature Reserve (LNR) located c.928 metres (m) south of the site and Nunhead Railways Cutting Sites of Borough Grade II Importance for Nature Conservation (SINC).

2 Methodology

EXTENDED PHASE 1 HABITAT SURVEY

- 2.1 A walkover survey of the Kirkwood Nature Garden site was carried out by Sabrina Bremner (Ecologist) and Alexandra Davey (Assistant Ecologist) on the 26th July 2012. This followed standard Phase 1 methodology (JNCC 2010) mapping the habitats and noting dominant flora species present. This was supplemented by a desk-top study using on-line mapping services for information on statutory designated sites (www.magic.gov.uk and <http://www.natureonthemap.org.uk/map.aspx>). In addition, The UK (JNCC, 2010), London (London Biodiversity Partnership, 2010: <http://www.lbp.org.uk>) and Southwark Biodiversity Action Plan (BAP) (London Borough of Southwark, 2007) were reviewed for those species and habitats that may, or have the potential to be, present at the site.
- 2.2 A habitat plan of the site is provided in Appendix 1; a full list of plant species identifiable at the site, along with an assessment of their abundance, appears in Appendix 2.
- 2.3 Incidental records of birds and other fauna noted during the course of the habitat survey were also compiled. Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

SITE EVALUATION

- 2.4 The assessment of the site's ecological features and attributes has been undertaken in line with the 2006 Institute of Ecology and Environmental Management (IEEM) guidelines for Ecological Impact Assessment (EclA). These guidelines aim to provide consistency in the approach to evaluating the importance of ecological features and any impact that a new development would have upon them.
- 2.5 The value of ecological features is defined according to the following geographical scale:
- International;
 - UK;
 - National (i.e. England/Northern Ireland/Scotland/Wales);
 - Regional;
 - County (or Metropolitan - e.g. in London);
 - District (or Unitary Authority, City, or Borough);
 - Local or Parish;

- Within zone of influence only (which might be the project site or a larger area); and
- Negligible value.

2.6 The assessment of value for a given feature draws on a range of ecological attributes including:

- The presence of designated sites or BAP habitats or BAP species;
- The presence of rare species or significant populations of species, or populations at the edge of a species' distribution;
- The presence of ancient, rare, fragile or vulnerable habitats and those that are good examples of their type;
- The presence of rare or diverse assemblages of habitats or species; and
- The potential value where there is a possibility of increasing habitat or population size or connectivity or of improving habitat quality.

2.7 In addition, the site has been evaluated using local criteria for designation of non-statutory wildlife sites provided by the Greater London Authority (GLA) in *Connecting with London's nature the Mayor's Biodiversity Strategy* (GLA 2002).

LIMITATIONS

2.8 It should be noted that, whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment. This appraisal does not constitute a full botanical survey, or a Phase 2 survey that would include accurate GIS mapping for invasive or protected plant species. The site evaluation provides an overview of the site's ecological value using recognised locally developed criteria and is therefore sufficient to support any decisions for designation in the Area Action Plan. However, it is not based on detailed surveys, and while unlikely, it should be recognised that any future surveys could provide records for rare species that would not have been detected in the current survey.

3 Results

DESK STUDY

- 3.1 The following information regarding the present and historical ecological interest of the site was supplied by the online desk study. The data covers a standard 1km radius search area.
- 3.2 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded. Records include information on the following:

Nature conservation designations

- 3.3 **Statutory Sites of Importance for Nature Conservation:** The site is not subject to statutory nature conservation designations, such as SPA, SSSIs, SACs or LNRs. The desk-based search shows that there are no sites with European or National statutory designations within a 1km radius of the site.
- 3.4 The nearest statutory designated site is Nunhead Cemetery Local Nature Reserve which lies approximately 928m south of the site. This site supports a large area of broadleaved woodland, a good population of breeding birds, and 16 species of butterfly, including the nationally scarce white-letter hairstreak *Strymonidia w-album*.
- 3.5 **Non-statutory sites of nature conservation importance:** The nearest non-statutory site within the 1km search area is the Nunhead Railway Embankments SINC. This area lies immediately to south east of the site; and is described as dense woodland and scrub on the railway embankment owned by Network Rail.

EXTENDED PHASE 1 HABITAT SURVEY

- 3.6 Please refer to the habitat map in Appendix 1 for the locations of the features of ecological interest labelled as target notes and described below and in Table 2.

Woodland and scattered trees

- 3.7 Young secondary woodland formed the majority of the site and was composed of even-aged sycamore *Acer pseudoplatanus*, plum *Prunus* sp., grey poplar *Populus x canescens*, crack willow *Salix fragilis*., silver birch *Betula pendula*, ash *Fraxinus excelsior*, wild pear *Pyrus pyraeaster*, and occasional lime *Tilia* sp. The shrub layer was sparse, comprising yew *Taxus baccata* (Target note 4, Appendix 1) , butterfly bush

Buddleia davidii, holly *Ilex aquilifolium*, blackthorn *Prunus spinosa*, and elder *Sambucus nigra*, with occasional coppiced mature hazel *Corylus avellana*, purple filbert *C. maxima* 'Purpurea', field maple *Acer campestre* and hawthorn *Crataegus monogyna*. The ground layer was dense and formed principally by bramble *Rubus fruticosus* agg., garden ivy *Hedera* sp., and ivy *Hedera helix*. Herbs included wood avens *Geum urbanum*, garlic mustard *Alliaria petiolata*, red campion *Silene dioica*, white dead-nettle *Lamium album*, and herb-Robert *Geranium robertianum*. Traveller's-joy *Clematis vitalba* occurred rarely. A bird box had been fixed to one of the young trees (Target note 3, Appendix 1). Dense ivy formed the southern limit of the woodland along the boundary fence (Target note 5, Appendix 1)

Marginal vegetation and standing water (pond) and dry ditch

- 3.8 A small pond was located in the north eastern extent of the site (Target note 2, Appendix 1). Within the waterbody were aquatic species including water plantain *Alisma plantago-aquatica*, water cress *Rorippa nasturtium-aquaticum* and hornwort *Ceratophyllum* sp. Surrounding and in the banks of the pond was well developed marginal vegetation dominated by yellow flag iris *Iris pseudacorus*, water mint *Mentha aquatica*, soft rush *Juncus effusus*, lesser pond sedge *Carex acutiformis*, greater pond sedge *C. riparia*, common ragwort *Senecio jacobaea*, and great willowherb *Epilobium hirsutum*.
- 3.9 The dry ditch extended south west from the pond and was vegetated by herbs and ferns including shield ferns *Polystichum* sp. and hart's-tongue *Phyllitis scolopendrium*, cow parsley *Anthriscus sylvestris*, lesser burdock *Arctium minus*, teasel *Dipsacus fullonum*, and cat's-ear *Hypochaeris radicata*

Amenity grassland

- 3.10 Amenity grassland was present in small areas in the western limit; species included perennial rye grass *Lolium perenne*, annual meadow grass *Poa annua*, dandelion *Taraxicum* sp., creeping buttercup *Ranunculus repens* and greater plantain *Plantago major*.

Introduced shrub and dense scrub

- 3.11 Specimens of introduced shrub included dense cherry laurel *Prunus laurocerasus*, lesser periwinkle *Vinca minor*, and box *Buxus* sp., Dense scrub was present throughout the site; species included bramble, elder, hawthorn and ivy. Bare ground

was observed in one formal planting bed (Target note 1, Appendix 1) where planting had either been removed or had died.

4 Evaluation

Geographic evaluation

- 4.1 **Features of International Value:** Features of international value are principally sites covered by international legislation or conventions such as those sites designated under the Habitats Regulations which implements the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive). Sites designated at this level include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) which form the Natura 2000 network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). The regulations deal mainly with protection afforded to habitats, however, they also give protection to certain species of flora and fauna including bats and great crested newts.
- 4.2 The site does not form part of a site of international importance for nature conservation and is distant from any such sites. Based on habitat quality and review of existing data, it is considered likely that the site would support roosting bats such as soprano pipistrelle *Pipistrellus pygmaeus* in low numbers and low foraging activity. The site's value for bats is unlikely to be important in the local context.
- 4.3 **Features of national importance:** Features of national importance include SSSIs which are designated under the Wildlife and Countryside Act 1981 (as amended) as well as species such as common reptiles which are subject to national legislation rather than international legislation. The site does not form part of a site of national importance for nature conservation and is distant from any such sites. The site may support breeding birds, which are protected under the Wildlife and Countryside Act 1981 (as amended). The site may also support species covered by the UK BAP and which are therefore material considerations in determining planning applications. The UK BAP species present or potentially present at the site includes house sparrow *Passer domesticus* and song thrush *Turdus philomelos*. Due to the limited extent of suitable habitat at the site it is considered that populations present would be of no more than local importance.
- 4.4 The site does not meet the criteria for the UK Biodiversity Action Plan (BAP) for Lowland Mixed Deciduous Woodland or Ponds, due to the limited extent, recently established nature and quality of these habitats at the site.

- 4.5 **Features of regional (i.e. Greater London) importance:** Sites of Metropolitan Importance for Nature Conservation (i.e. sites considered to be of London-wide importance for wildlife) are defined as being ‘... *those sites which contain the best examples of London’s habitats, sites which contain particularly rare species, rare assemblages of species or important populations of species...*’
- 4.6 As shown in the site evaluation using local criteria for designation of non-statutory wildlife sites⁴ in Table 1 below, the site lacks any features that would justify designation at the metropolitan level.
- 4.7 The London BAP habitats and species present or potentially present at the site are as follows: parks and urban green spaces, woodland, and house sparrow. The London BAP for Parks and Urban Green Spaces relates to the potential for enhancing the wildlife value rather than intrinsic ecological importance of existing habitats. As discussed below, populations of house sparrow are unlikely to exceed local value.
- 4.8 **Features of borough (i.e. Southwark) importance:** Sites of Borough Importance for Nature Conservation are defined as being ‘...*sites which 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...*’ A review of sites of Borough (grade I and II) Sites of Importance for Nature Conservation in the vicinity of the site and the application of local criteria below shows that the site is not likely to be important at the borough level in terms of its habitats or species.
- 4.9 The Southwark BAP is applicable to the site. This relates largely to the potential for enhancing the wildlife value and is intended to encourage opportunities for wildlife through land management. Associated with each BAP habitat are a number of ‘flagship species’ (London Borough of Southwark, 2007) which are characteristic or of specific importance to parks and open spaces in Southwark and for which conservation actions should be developed. Of these species the site is currently considered suitable for house sparrow, buttercups *Ranunculus* spp., holly blue *Celastrina argiolus* and meadow brown *Maniola jurtina* although this is likely to be at the Local level only, due to the limited extent and quality of existing habitats.

⁴ Connecting with London’s nature the Mayor’s Biodiversity Strategy Greater London Authority 2002

- 4.10 **Features of local (i.e. Peckham) importance:** The GLA defines Sites of Local Importance for Nature Conservation as those that ‘...are, or may be, of particular value to people nearby (such as residents or schools)...’ It also notes that ‘Only those sites that provide a significant contribution to the ecology of an area are identified’. As shown in Table 1 below the secondary broadleaved woodland, marginal vegetation and pond habitats at the site are of value for nature conservation in this context, as despite their limited extent they are locally uncommon. Therefore, the site does contain some (limited) habitats of local importance for nature conservation. The site is freely accessible by local residents and other members of the public, and is therefore of value to the local community as an area of open space and for enjoying common wildlife.
- 4.11 **Features of importance within the zone of influence only (within the site and immediate vicinity):** With reference to Paragraph 4.9 above and Table 1 below the following habitats at the site are of value within the site and immediate vicinity only: amenity grassland and introduced shrub. The habitat survey, data search and limited connectivity to further suitable habitat indicate that the site’s importance for invertebrates is also at this geographic level.
- 4.12 **Features of negligible importance:** Bare ground was of negligible importance.
- 4.13 **Secondary or supporting value:** The site does support the habitats present within the adjacent Nunhead Railways Cutting SINC and appears to form part of the ecological corridor.

EVALUATION USING LOCAL CRITERIA

- 4.14 Table 1 below provides an evaluation using GLA criteria for designation of non-statutory wildlife sites. The application of local criteria to the site allows a more complete assessment of whether they are of significance for nature conservation at the regional, borough or local scale.

Table 1: Evaluation of nature conservation interest at Kirkwood Road Nature Garden using GLA criteria

GLA Criteria	Remarks
Representation	The site comprises areas of amenity green space with amenity grassland and introduced shrub, and a small pond with marginal vegetation that are typical of inner urban residential areas in terms of their wildlife value. The site also contains recent secondary broadleaved woodland and scattered tree and scrub that are typical of their inner urban location and likely to so support a limited and typical assemblage of bats, birds and invertebrates.
Habitat rarity	The site was dominated by broadleaved woodland, planted shrub and trees, with amenity grassland, marginal vegetation, pond and dry ditch. While none of these habitats are rare in the London and borough context, based on a review of aerial photography this habitat mosaic is locally uncommon. Woodland occupies 4% and tall grassland only occupies 1% of Southwark (London Borough of Southwark 2007)
Species rarity	No rare plants were recorded and the site lacks habitat likely to support rare bats, invertebrates or birds, although some common but declining bird species covered by UK and London BAPs are likely to be present.
Habitat richness	The site supported a limited range of locally uncommon habitats comprising recent secondary broadleaved woodland, introduced shrub, scattered trees, marginal and aquatic vegetation and scrub.
Species richness	The site did not support a diverse flora and the site's location and the nature and extent of habitats present indicate that it will not support diverse assemblages of bats, birds or invertebrates.
Size	The site is approximately 0.2 hectares in area. All habitats at the site were of very limited extent which reduces the potential for large populations or diverse assemblages of species
Important populations of species	The site may support populations of widespread bird species including certain BAP species, but the limited extent of habitats present will limit population size and significance for nature conservation.
Ancient character	Not applicable. All habitats at the site are of relatively recent origin.
Fragility	All habitats at the site are resilient to most impacts other than extreme disturbance, drought or gross inputs of pollution. Due to the site's location all associated fauna will be habituated to noise, night-time lighting, disturbance etc. Therefore none of the species and habitats at the site are of conservation significance due to their fragility.
Recreatibility	All habitats at the site are readily recreatable in the medium term including mature trees likely to be c40 years old.
Typical urban character	The site is typical of urban areas; however urban habitats of high value for nature conservation such as canals, species rich wasteland and old parkland are not present.

Table 1: Evaluation of nature conservation interest at Kirkwood Road Nature Garden using GLA criteria

GLA Criteria	Remarks
Cultural or historic character	Not applicable
Geographic position	The site appears to form part of a local and limited ecological corridor.
Access	Full public access (no public right of way).
Use	Recreational and for nature conservation.
Potential	Enhancements to planting and maintenance could provide opportunities to implement the London BAPs for Parks and Urban Greenspaces and Woodland, and the Southwark BAP.
Aesthetic appeal	The site is actively used as a public park and is an attractive area for the public.

4.15 The evaluation as a whole shows that habitats at Kirkwood Road Nature Garden do not meet local criteria for designating Sites of Metropolitan, or Borough Importance for Nature Conservation; however the site does meet some criteria for Local Importance for Nature Conservation. The standards for designating sites at each of these geographic levels are summarised in Paragraphs 4.4 to 4.9 above.

5 Conclusions and Recommendations

CONCLUSIONS

- 5.1 The habitats at Kirkwood Road Nature Garden were of ecological importance in the context of the local area only, and bare ground was of negligible importance.
- 5.2 The habitats at the site corresponded with the following London BAP Habitat types: Parks and Urban Greenspaces, and the Southwark BAP. These BAPs relate largely to opportunities for enhancement rather than current ecological value of the habitats covered.
- 5.3 The site is likely to support certain common and widespread but declining species of bird included house sparrow which is a UK, London and Southwark BAP species. A review of existing data, the status of these species in London and Southwark, and assessment of onsite and surrounding habitat suggests that the populations present are of ecological importance in the local (Peckham) context.
- 5.4 Recommendations are made below to enhance the nature conservation value of Kirkwood Road Nature Garden. These aim to enhance the site by improving the quality of existing London and Southwark BAP habitats, with specific aims to enhance for BAP species such as house sparrow and stag beetle, dunnock *Prunella modularis* and starling *Sturnus vulgaris*, and for Southwark's flagship species associated with uncut grassland such as buttercups and certain species of butterfly .

RECOMMENDATIONS

- 5.5 *Breeding birds:* The site contains woodland, scattered trees, introduced shrub, dense scrub, grassland of high potential to support nesting and foraging birds. Birds are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence, amongst other things, to kill, injure or take any wild bird or take, damage or destroy the nest of any wild bird while it is in use or being built. Measures necessary to avoid the destruction of nests, eggs and young birds will be required if enhancement measures are undertaken that would affect trees, scrub and hedges.
- 5.6 *Bats:* In order to avoid potential impacts to roosting bats it is recommended that the all trees to be removed or pruned are first assessed for their likelihood to support bat

roosts. If these surveys cannot rule out the presence of bat roosts, emergence and activity surveys will be required which must be carried between May and October.

- 5.7 **Mature Trees:** Any trees or mature shrubs that are likely to be impacted by proposals should be protected in accordance with BS 5837 2012 *Trees in relation to design, demolition and construction*.
- 5.8 **Pond:** Water bodies including the pond are present on-site. All land that drains into these water bodies should be managed to avoid changes to surface and ground water levels and the diversion of water away from these habitats. All works near to features should adhere to best practice guidance to avoid adverse effects upon water quality, such as *Pollution Prevention Guidance 5: Works and maintenance in or near water* (Environment Agency, 2007). Any development proposals should also ensure that they are buffered by planting (without increasing shading) to provide adjacent habitat and reduce risk of runoff from hard surfaces.

Habitat enhancements

- 5.9 The following enhancement measures are recommended in line with the relevant London and Southwark BAPs:
- 5.10 **Landscape planting enhancements:** Additional wildlife garden planting should be incorporated into site designs to complement existing woodland, scrub, introduced shrub, marginal vegetation and pond, and amenity grassland to provide foraging, cover and nesting for birds and invertebrates, including BAP species house sparrow and song thrush. Any planting scheme should utilise a high percentage of native tree, shrub and climbing species, providing nectar, pollen and berries. Climbers could be planted along the edges of fences and/or walls where they will provide a green façade of potential value to foraging birds and insects.
- 5.11 Where horticultural stock that requires hard pruning is used such as willow *Salix* sp., dogwood *Cornus* sp., hazel *Corylus* sp. ash, poplar *Populus* sp. etc., small sections should be cut to the ground (coppiced) on an alternating basis e.g. every 5-10 years, to ensure that a good proportion of flowering/fruited growth is present in any given season. Works should be carried out in the late winter when disturbance to wildlife and removal of flowering or fruited material providing valuable forage will be minimal. The arisings could be used to create habitat piles in remaining areas of tree/shrub planting or other undisturbed areas of the site.

- 5.12 Where possible, areas of recent secondary broadleaved woodland, introduced shrub and scrub should be under-planted with shrubs and herbaceous material to create greater structure within the planting and to provide denser cover for wildlife. Enhancements to the existing woodland corridor should aim to provide a continuous shrub layer of dense foliage under larger canopy trees. Important shrub layer species include hazel, oak and honeysuckle; others of value are ash, blackthorn and hawthorn. Removal of dense cherry laurel in places would allow natural regeneration of a native shrub and ground layer. Dead wood should be retained as invertebrate habitat in undisturbed areas of the site.
- 5.13 The decline in house sparrows has been linked to reduction in invertebrate prey for chicks and the inclusion of planting likely to provide suitable foraging is recommended. Landscaping should include native deciduous shrubs and trees and a diversity of grasses and herbaceous perennials to set seed and remain in situ throughout the winter would promote the abundance of a range of foliar invertebrate species.
- 5.14 House sparrows require dense cover for roosting that could be achieved through additional dense plantings of mixed deciduous and evergreen shrubs. This would also provide nesting habitat for dunnock *Prunella modularis* and the inclusion of berrying species would benefit foraging starling *Sturnus vulgaris*, both London BAP species. The use of bark chippings or other organic mulched would also improve foraging for all three species.
- 5.15 **Enhancement of amenity grassland for invertebrates:** The inclusion of a good variety of low-growing wildflowers such as birds-foot-trefoil *Lotus corniculatus*, selfheal *Prunella vulgaris*, ladies bedstraw *Galium verum* and hawkbits *Leontodon* spp. to create a daisy lawn in any areas within the site. This will provide foraging for a variety of widespread invertebrates throughout the summer if cutting is not too frequent. This would enhance the quality of such grassland and potentially improve habitat for Southwark flagship plant and invertebrate species (London Borough of Southwark, 2007): buttercups *Ranunculus* spp., holly blue *Celastrina argiolus* and meadow brown *Maniola jurtina*. A list of recommended species is provided in Appendix 4.
- 5.16 **Enhancement of pond, marginal and adjacent habitats for reptiles and amphibians:** It is recommended that where possible at least one further pond, ideally several, is created on site. Ideally this pond would have naturally sloping, vegetated banks, with marginal and submerged vegetation. The ponds should be sufficiently deep that they

do not dry out in summer, and planting should be of native origin (See species list in Appendix 3).

5.17 Reptile and amphibian hibernacula could be created nearby the pond; ideally several should be created in undisturbed areas facing south – southeast. Hibernacula should be at least 0.5m below ground and 1.5m above, and a minimum of 1.5m wide. These should be composed of rubble in base, then logs, soil and rubble should be placed carefully on top, allowing small pockets of air. Turf could then be placed on top of the hibernacula, and planted with bulbs and wildflowers if required to improve the finished look. These reptile hibernacula will also be utilised by amphibians and common invertebrate species throughout the year.

5.18 **Artificial bird boxes:** To provide bird nesting opportunities a minimum of five bird nesting boxes could be erected on fences and/or any existing standard trees, as follows:

- Woodcrete bird boxes (such as Schwegler) are recommended as they include a broad range of designs, are long lasting compared to wooden boxes and insulate occupants from extremes of temperature and condensation. Boxes should be placed apart from one another, ideally on different building facades/fences/trees and not be lit by any new lighting proposals for the site.
- Erect open-fronted and hole-fronted bird nesting boxes on suitable trees, buildings and fences. Boxes will require annual maintenance which is normally carried out over the winter months. The following models are most appropriate: 1SP, 1B hole-fronted (26mm and 32mm entrance hole), and 2H open-fronted (120mm opening).
- Ideally boxes should be positioned so they face in an easterly or westerly direction, out of direct sunlight. They should be at least 3m above ground level (preferably 3-6m), and away from bird feeders and a discrete distance away from other nest boxes, ideally on different facades. Colony boxes, such as the Schwegler 1SP sparrow terrace can be placed adjacent to one another.
- They should be attached to trees/building/fences using Schwegler fixings. Boxes should be cleaned annually in the autumn with old nests removed annually between October and January, and boxes repaired or replaced as necessary.

5.19 **Good horticultural practice:** Good horticultural practice should be utilised in any landscaping scheme and should include the following simple methods to minimise off-site ecological impacts:

- The use of peat-free composts and soil conditioners to reduce the loss of important peat bogs.
- Feeding of plants using organic based fertilisers and improving the soil structure by incorporating organic material, preferably composted waste.
- The use of mulches to lock moisture into the soil. 'Water-wise gardening' helps reduce consumption of drinking water which is especially important during drought periods.
- The use of pesticides (herbicides, insecticides, fungicides and slug pellets etc) should be discouraged to prevent cumulative fatal effects to animals via the food chain, particularly invertebrates, birds and/or mammals. Any pesticides used should be non-residual.

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Appendix 1: Habitat Survey Map



KEY

- Site boundary
- Woodland
- Amenity grassland
- Standing water
- Bare ground
- Dry ditch
- Target note



This plan is provided solely for the purpose of supporting the description of the ecological features of the site as contained in the accompanying report

ArcGIS Desktop 10.0, Layout - Ecology Consultancy v10.0.0.0 Beta
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Appendix 2: Plant Species List

Plant Species List for Kirkwood Park Nature Garden compiled from the Preliminary Ecological Appraisal survey carried out on the 26th July 2012

Scientific nomenclature follows Stace (2010) for vascular plant species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. Please note that this plant species list was generated as part of a Preliminary Ecological Appraisal, does not constitute a full botanical survey and should be read in conjunction with the associated report.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, LD =locally dominant
p=planted, s=seedling or sucker, t=tree, y = young tree,

Latin Name	Common name	Abundance	Qualifiers
<i>Acer campestre</i>	Field maple	R	s
<i>Acer pseudoplatanus</i>	Sycamore	O	s
<i>Alisma plantago-aquatica</i>	Water-plantain	R	p
<i>Alliaria petiolata</i>	Garlic mustard	O	
<i>Anthriscus sylvestris</i>	Cow parsley	R	
<i>Arctium minus</i>	Lesser burdock	R	
<i>Artemisia spp.</i>	Mugworts	R	
<i>Ballota nigra</i>	Black horehound	O	
<i>Bellis perennis</i>	Daisy	O	
<i>Betula pendula</i>	Silver birch	O	t
<i>Bryonia dioica</i>	White bryony	O	
<i>Buddleia davidii</i>	Butterfly bush	F	s
<i>Buxus sp.</i>	Box	O	sp
<i>Calystegia sepium</i>	Hedge bindweed	O	
<i>Carex riparia</i>	Greater pond-sedge	R	p
<i>Ceratophyllum sp</i>	Hornwort	LD	p
<i>Cirsium sp.</i>	Thistle	F	
<i>Clematis vitalba</i>	Traveller's-joy	R	
<i>Cornus spp.</i>	Dogwoods	R	p
<i>Corylus avellana</i>	Hazel	O	t
<i>Corylus maxima "Purpurea"</i>	Purple filbert	O	tp
<i>Crataegus monogyna</i>	Hawthorn	O	t
<i>Diploxaxis muralis</i>	Annual wall-rocket	O	
<i>Dipsacus fullonum</i>	Wild teasel	R	
<i>Epilobium hirsutum</i>	Great willowherb	LD	
<i>Fagus sylvatica</i>	Beech	R	st
<i>Festuca rubra</i>	Red fescue	O	

Latin Name	Common name	Abundance	Qualifiers
<i>Fraxinus excelsior</i>	Ash	F	s
<i>Galium aparine</i>	Cleavers	O	
<i>Geranium dissectum</i>	Cut-leaved crane's-bill	O	
<i>Geranium robertianum</i>	Herb-Robert	O	
<i>Geum urbanum</i>	Wood avens	O	
<i>Hedera helix</i>	Ivy	F	
<i>Hedera sp.</i>	Garden ivy	O	p
<i>Heracleum sphondylium</i>	Hogweed	O	
<i>Hieracium spp.</i>	Hawkweeds	R	
<i>Hypericum sp</i>	Hypericum sp	R	p
<i>Hypochaeris radicata</i>	Cat's-ear	O	
<i>Ilex aquifolium</i>	Holly	O	ts
<i>Iris pseudacorus</i>	Yellow iris	LD	p
<i>Carex acutiformis</i>	Lesser pond sedge	R	p
<i>Juncus effusus</i>	Soft-rush	O	p
<i>Lamium album</i>	White dead-nettle	O	
<i>Lamium purpureum</i>	Red dead-nettle	R	
<i>Leucanthemum vulgare</i>	Oxeye daisy	R	g
<i>Lolium perenne</i>	Perennial rye-grass	F	
<i>Malus spp.</i>	Apples	R	t
<i>Malva sp.</i>	Mallow	O	
<i>Mentha aquatica</i>	Water mint	O	p
<i>Papaver sp.</i>	Poppy	O	
<i>Phragmites australis</i>	Common reed	R	p
<i>Phyllitis scolopendrium</i>	Hart's-tongue	R	
<i>Plantago major</i>	Greater plantain	O	
<i>Poa annua</i>	Annual meadow-grass	F	
<i>Poa trivialis</i>	Rough meadow-grass	R	
<i>Polystichum sp</i>	Shield-fern	R	
<i>Populus x canescens</i>	Grey poplar	F	tp
<i>Prunella vulgaris</i>	Selfheal	O	
<i>Prunus sp.</i>	Plum	F	tp
<i>Prunus laurocerasus</i>	Cherry laurel	O	sp
<i>Prunus sp.</i>	Cherry	O	ts
<i>Prunus spinosa</i>	Blackthorn	O	s
<i>Pyrus pyraister</i>	Wild pear	R	tp
<i>Ranunculus repens</i>	Creeping buttercup	F	
<i>Rorippa nasturtium-aquaticum</i>	Water-cress	R	
<i>Rosa sp.</i>	Rose	O	p
<i>Rubus fruticosus agg.</i>	Bramble	F	s
<i>Salix fragilis</i>	Crack-willow	O	tp

Latin Name	Common name	Abundance	Qualifiers
<i>Sambucus nigra</i>	Elder	O	ts
<i>Senecio jacobaea</i>	Common ragwort	O	
<i>Silene dioica</i>	Red campion	R	
<i>Stellaria media</i>	Common chickweed	R	
<i>Symphytum sp.</i>	Comfrey	R	
<i>Taraxacum sp.</i>	Dandelion	F	
<i>Taxus baccata</i>	Yew	O	ts
<i>Tilia sp.</i>	Lime	O	st
<i>Trifolium repens</i>	White clover	O	
<i>Ulex europaeus</i>	Gorse	O	s
<i>Urtica dioica</i>	Common nettle	F	
<i>Viburnum sp.</i>	Viburnum	R	p
<i>Vinca minor</i>	Lesser periwinkle	O	p
<i>Viola odorata</i>	Sweet violet	R	

Appendix 3: Legislation & Planning Policy

Important notice: This section contains details of legislation and planning policy applicable in Britain only (i.e. not including the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law.

A NATIONAL LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive⁵ is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991;
- Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment & Rural Communities (NERC) Act 2006;
- Protection of Badgers Act 1992;
- Wild Mammals (Protection) Act 1996.

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected

⁵ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2010 (which includes smooth snake, sand lizard, great crested newt and natterjack toad), all bat species, otter, dormouse and some plant species) are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Directive, the term ‘deliberate’ is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.
- The Conservation of Habitats and Species Regulations 2010 does not define the act of ‘migration’ and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.
- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three ‘tests’: i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Bats

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:
 - a) to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young;
 - (ii) to hibernate or migrate³
 - b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also currently protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level);
- Intentional or reckless obstruction of access to any place of shelter or protection;
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to bats liable to affect development works?

A European Protected Species (EPS) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity of a local population.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy an egg of any wild bird;
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- Intentional or reckless disturbance of dependent young of such a bird.

How is the legislation pertaining to birds liable to affect development works?

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August⁶. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Those species of bird listed on Schedule 1 are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Herpetofauna (Amphibians and Reptiles)

Widespread species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Species such as the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis* are listed in respect to Section 9(1) & (5). For these species, it is prohibited to:

- Intentionally kill or injure these species
- Sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

Common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Lissotriton vulgaris* and palmate newt *L. helveticus* are listed in respect to Section 9(5) only which affords them protection against sale, offering or exposing for sale, possession or transport for the purpose of sale.

⁶ It should be noted that this is the main breeding period. Breeding activity may occur outwith this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

How is the legislation pertaining to herpetofauna liable to affect development works?

A European Protected Species (EPS) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect the breeding sites or resting places of those amphibian and reptile species protected under The Conservation Habitats and Species Regulations 2010. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the Wildlife and Countryside Act 1981 (as amended).

Wild Mammals (Protection) Act 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to:

- Mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

B NATIONAL AND EUROPEAN LEGISLATION AFFORDED TO HABITATS

Statutory Designations: National

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory **Sites of Special Scientific Interest** (SSSIs) under the National Parks and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as **National Nature Reserves** which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European

context (Natura 2000 network) and globally (such as Wetlands of International Importance). See subsequent sections for details of these designations. Improved provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of **Limestone Pavement Orders**, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of **Marine Nature Reserves**, for which byelaws must be made to protect them.

Statutory Designations: International

Special Protection Areas (SPAs), together with **Special Areas of Conservation** (SACs) form the **Natura 2000** network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species Regulations 2010. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SPAs in UK offshore waters (from 12-200nm).

The Government is obliged to identify and designate SACs under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora). These are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are protected under The Conservation of Habitats & Species Regulations 2010. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SACs in UK offshore waters (from 12-200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water

and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

Statutory Designations: Local

Under the National Parks and Access to the Countryside Act 1949 **Local Nature Reserves** (LNRs) may be declared by local authorities after consultation with the relevant countryside agency. LNRs are declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation, and provide opportunities for research and education and enjoyment of nature.

Non-Statutory Designations

Areas considered to be of local conservation interest may be designated by local authorities as a **Wildlife Site**, under a variety of names such as **County Wildlife Sites** (CWS), **Listed Wildlife Sites** (LWS), **Local Nature Conservation Sites** (LNCS), **Sites of Biological Importance** (SBIs), **Sites of Importance for Nature Conservation** (SINCs), or **Sites of Nature Conservation Importance** (SNCIs). The criteria for designation may vary between counties.

Together with the statutory designations, these are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined. The level of protection afforded to these sites through local planning policies and development frameworks may vary between counties.

Regionally Important Geological and Geomorphological Sites (RIGS) are the most important places for geology and geomorphology outside land holding statutory designations such as SSSIs. Locally-developed criteria are used to select these sites, according to their value for education, scientific study, historical significance or aesthetic qualities. As with local Wildlife Sites, RIGS are a material consideration when planning applications are being determined.

C NATIONAL PLANNING POLICY

National Planning Policy Framework

The National Planning Policy Framework replaces PPS9 (from April 2012) and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species – presumably those listed as UK Biodiversity Action Plan priority species – is also listed as a requirement of planning policy. In determining planning application, planning authorities have a duty 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.

The Natural Environment and Rural Communities Act 2006 and The Biodiversity Duty

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

D REGIONAL AND LOCAL PLANNING POLICY

The London Plan, Spatial Development Strategy for Greater London, July 2011 contains the following policy relevant to the site.

Policy 7.19

Policy 7.19 provides specific commentary on the need for a positive contribution to the protection, enhancement, creation and management of biodiversity within development proposals with a particular emphasis on achieving biodiversity action plan targets. It states that the Mayor will work with all relevant partners to ensure a proactive approach to the

protection, enhancement, creation, promotion and management of biodiversity in support of the Mayor's Biodiversity Strategy. This means planning for nature from the beginning of the development process and taking opportunities for positive gains for nature through the layout, design and materials of development proposals and appropriate biodiversity action plans.... Development proposals should wherever possible, make a positive contribution to the protection, enhancement, creation and management of biodiversity, prioritise assisting in achieving targets in biodiversity action plans (BAPs) and/or improve access to nature in areas deficient in accessible wildlife sites. Development proposals should also not adversely affect the integrity of European sites, and be resisted where they have significant adverse impact on European or nationally designated sites or on the population or conservation status of a protected species, or a priority species or habitat identified in a UK, London or appropriate regional BAP or borough BAP.

Southwark's Unitary Development Plan (2007) contains the following saved policies from Section 3: Environmental Principles that are relevant to the site:

Policy 3.1 Environmental effects

"Planning permission for the establishment of uses that would cause material adverse effects on the environment will not be granted, and proposals for activities that will have a material adverse impact on the environment and quality of life will be refused".

Policy 3.13 Urban design

"Principles of good urban design must be taken into account in all developments.....In designing new developments, consideration must be given to:

vi) Landscaping – Where appropriate, developments should include landscape design that enhances the area and biodiversity, for example through the use of green roofs"

Policy 3.26 Borough Open Land (BOL)

Within Borough Open Land planning permission will not be granted for development unless:

- i. It is ancillary to the use of the open space; and
- ii. It is small in scale; and
- iii. It does not detract from the site's open nature and character; and
- iv. It is required to enhance activities associated with the particular open space; and
- v. It positively contributes to the setting and quality of the open space.

Policy 3.28 Biodiversity

"The LPA will take biodiversity into account in its determination of all planning applications and will encourage the inclusion in developments of features which enhance biodiversity, requiring an ecological assessment where relevant.

Developments will not be permitted which would damage the nature conservation value of sites of importance for nature conservation (SINCS) and local nature reserves (LNRs) and/or damage habitats, populations of protected species or priority habitats/species identified in the United Kingdom, London or the Southwark biodiversity action plan. Where, exceptionally, such developments are permitted, the Council will seek mitigation and/or compensation for the damage to biodiversity.

Where new sites of importance for nature conservation and local nature reserves are identified, these sites will be afforded protection under this policy and policy 3.27, Other Open Spaces”.

Reasons

The council has an obligation to protect biological diversity under national and international legislation, including the Convention on Biological Diversity (1992), The Habitats Directive (1992), National Parks and Access to the Countryside Act (1949) and the Wildlife and Countryside Act (1981). The council has a responsibility to protect and enhance biodiversity throughout Southwark and particularly to protect areas of nature conservation. Due to the intense pressure on land for development, it is important that areas of nature conservation value or ecological importance are identified and the flora and fauna associated with these areas are protected and enhanced as outlined in the council’s biodiversity action plan.

Access to wildlife also enables people to experience wildlife in an otherwise intensely urban environment, promoting well-being and providing a number of educational benefits.

Sites of Importance for Nature Conservation and Local Nature Reserves are listed in Appendix 14.

Southwark Core Strategy Strategic Policy 11 – Open Spaces and Wildlife aims to...
“improve, protect and maintain a network of open spaces and green corridors that will make places attractive and provide sport, leisure and food growing opportunities for a growing population. We will protect and improve habitats for a variety of wildlife.

We will do this by

- *Continuing to protect important open spaces from inappropriate development. These will include parks, allotments, sports grounds, green chains, sites of importance for nature conservation (SINCS) and cemeteries. Large spaces of importance to all of London will be protected (Metropolitan Open Land) as well as smaller spaces of more borough-wide and local importance (Borough Open Land and Other Open Spaces)*
- *Protecting woodland and trees and improving the overall greenness of places, including through promoting gardens and local food growing.*
- *Promoting and improving access to and links between open spaces.*

- *Identifying and protecting open spaces that provide quiet areas and relative tranquillity.*
- *Requiring new development to help meet the needs of a growing population by providing space for children’s play, gardens and other green areas and helping to improve the quality of and access to open spaces and trees, particularly in areas deficient in open space.*
- *Requiring new development to avoid harming protected and priority plants and animals and help improve and create habitat.”*

E UK BAP

In 1994 the UK Government published its response to the Convention on Biological Diversity that it signed along with over 150 other nations at the Rio Earth Summit in 1992. Biodiversity – the UK Action Plan (HM Government 1994) and subsequent publications (e.g. UK Steering Group 1995) set out a programme for the national Biodiversity Action Plan (BAP), including the development of targets for biodiversity, and the techniques and actions necessary to achieve them. The national BAP includes lists of species that are of conservation concern, either because they are rare in an international or national context or have undergone serious declines in their populations in recent years. Species Action Plans have been prepared or are in preparation for a many of these species, whilst Habitat Action Plans are being produced for important or characteristic habitats identified in the plan.

F REGIONAL AND LOCAL BAPS

The site is covered by the regional BAP for London and the local BAP for the London Borough of Southwark. The habitats and species covered by the BAPs are reproduced below:

- Parks & urban greenspaces
- Woodland
- House sparrow.
- Grassland

Appendix 4: Species of Value to Wildlife

ORNAMENTAL AND NATIVE SPECIES OF WILDLIFE VALUE

The list below gives some easily sourced plants which are of proven value to wildlife. It includes a number of ornamental species which are not native and can be used in combination with native species in more formal situations. In informal landscapes the emphasis should be on the use of native species.

Where ornamental trees and shrub planting are proposed it is recommended that species producing abundant nectar rich flowers or berries palatable to birds are used. Such species include (non-invasive) varieties of Cotoneaster⁷ and firethorn *Pyracantha*. Additionally climbers should be planted on bare walls and fences where they will attract foraging birds and invertebrates.

Different horticultural varieties of the following species are commonly available, but where possible standard stock is advised, especially for native species. Single flowering plants should be chosen over double flowering plants. With exception of * (biennials) and ** (annuals) all species are perennial. **E** = Exotic, **N** = Native. Note: the list includes species that may be harmful if handled or ingested. Numerous sources of further information are available. See for instance *Poisonous Plants and Fungi: An Illustrated Guide*, M.R. Cooper, A.W. Johnson and E. Dauncey, TSO: 2nd edition, 2003 ISBN 100117028614

Tree

Cherry *Prunus spp.*, *P. avium* (wild cherry) **N**

Ash *Fraxinus excelsior* **N**

Crab apple *Malus sylvestris* **N**

Pear *Pyrus spp.* *Pyrus calleryana*

Small-leaved lime *Tilia cordata* (or similar hybrid) **N**

Silver birch *Betula pendula* **N**

Yew *Taxus baccata* **N**

Foxglove tree *Pawlonia tomentosa* **E**

Lacebarks *Hoheria spp.* *H. glabrata*, *H. lyallii* **E**

Tulip tree *Liriodendron tulipifera* **E**

nb: many of the shrub species below will form small trees when mature

⁷ Please refer to <http://www.defra.gov.uk/wildlife-pets/wildlife/management/non-native/documents/schedule9-list.pdf> for invasive species that should be avoided in landscaping plans.

Large Shrubs

- Shrubby veronica *Hebe spp.* **E**
- Hawthorn *Crataegus monogyna* **N**
- Blackthorn *Prunus spinosa* **N**
- Rose *Rosa canina* (dog rose) *R. arvensis* (field rose) *R. pimpinellifolia* (burnet rose) **N**
- Elder *Sambucus nigra* **N**
- California lilac *Ceanothus arborea / spp.* **E**
- Privet *Ligustrum vulgare* **N/E**
- Common holly *Ilex aquifolium* **N**
- Barberry *Berberis darwinii*, *B. thunbergii*, *B. x stenophylla* **E**
- Daisy bush *Olearia x hastii*, *O. macrodonta* and *O. traversii* **E**
- Firethorn *Pyracantha coccinea* **E**
- Hazel *Corylus avellana* **N**
- Guelder rose *Viburnum opulus* **N**
- Wayfaring tree *Viburnum lantana* **N**
- Buddleia *Buddleja davidii*, *B. alternifolia*, *B. globosa* **E**
- Dogwood *Cornus sanguinea* **N**
- Broom *Cytisus scoparius* **N**
- Mexican orange bush *Choisya ternata* **E**
- Laurustinus *Viburnum tinus* **E**
- Portuguese laurel *Prunus lusitanica* **E**
- Flowering currant *Ribes sanguineum* **E**
- Cherry laurel *Prunus laurocerasus* **E**
- Escallonia *Escallonia macrantha* **E**
- Hardy fuchsia *Fuchsia magellanica* **E**
- Buckthorn *Rhamnus cathartica* **N**
- Spindle *Euonymus europaeus* **N**
- Tutsan *Hypericum androsaemum* **N**
- Yew *Taxus baccata* **N**

Herbaceous perennials and small shrubs

- Tree mallow *Lavatera spp. L. obliquo*, *L. thuringiaca* **E**
- Ice plant *Sedum spectabile* **E**
- Lavender *Lavandula angustifolia*, *L. x intermedia* **E**
- Globe thistle *Echinopsis ritro* **E**
- Foxglove *Digitalis purpurea** or *D. lutea*, *D. x mertonensis* **N/E**

Michaelmas daisy *Aster novi-belgii* E
Teasel *Dipsacus fullonum** N
Sunflowers *Helianthus annuus*** E
Red valerian *Centranthus rubra* E
Hemp agrimony *Eupatoria cannabinum* N
Common knapweed *Centaurea nigra* N
Black-eyed susan *Rudbeckia hirta*** or *R. fulgida* E
Rosemary *Rosmarinus officinalis* E
Rock rose *Cistus spp.* E

Climbers

Jasmine *Jasminum officinale* E
Ivy *Hedera helix* N
Climbing hydrangea *Hydrangea petiolaris* E
Honeysuckle *Lonicera periclymenum* or *L. japonica*, *L. fragrantissima*, *L. standishii* N/E
Spindle *Euonymus spp. E. fortunei* N/E
Clematis spp. *Clematis vitalba* or *C. armandii*, *C. alpina*, *C. montana*, *C. tangutica* N/E
Firethorn *Pyracantha atalantioides* E
Nasturtium *Tropaeolum majus*** E

Recommended planting for new ponds

Submerged Aquatics

Water crowfoot *Ranunculus aquatilis*
Spiked water milfoil *Myriophyllum spicatum* N.B. a similar species *Myriophyllum aquaticum* (parrot's feather) is a Schedule 9 invasive plant species
Water starwort *Callitriche stagnalis*
Rigid hornwort *Ceratophyllum demersum*
Curly pondweed *Potamogeton crispus*

Floating Aquatics

Yellow water lily *Nuphar lutea* (can require control)
White water lily *Nymphaea alba* (can require control)
Fringed water lily *Nymphoides peltata*
Bog-bean *Menyanthes trifoliata*
Amphibious bistort *Polygonum amphibium*

Marginal

Yellow iris *Iris pseudacorus*
Water mint *Mentha aquatica*
Water plantain *Alisma plantago-aquatica*
Arrowhead *Sagittaria sagittifolia*
Brooklime *Veronica beccabunga*
Water forget-me-not *Myosotis scorpioides*
Lesser spearwort *Ranunculus flammula*
Lesser reedmace *Typha angustifolia*
Flowering rush *Butomus umbellatus*
Branched bur-reed *Sparganium erectum*
Purple loosestrife *Lythrum salicaria*
Floating sweet-grass *Glyceria fluitans* (grass)
Reed sweet-grass *Glyceria maxima* (grass)
Reed canary grass *Phalaris arundinacea* (grass)

Marshy/damp grassland

Bugle *Ajuga reptans*
Creeping Jenny *Lysimachia nummularia*
Lady's smock *Cardamine pratensis*
Ragged robin *Lychnis flos-cuculi*
Marsh marigold *Caltha palustris*
Meadow sweet *Filipendula ulmaria*
Meadow buttercup *Ranunculus acris*
Marsh woundwort *Stachys palustris*
Hemp agrimony *Eupatorium cannabinum* N.B. can dominate large areas
Rush species *Juncus* spp.

Plants to avoid in smaller ponds

Greater reedmace *Typha latifolia* (large area required)

Common reed *Phragmites australis* (large area required)

Greater spearwort *Ranunculus lingua* (spreads quickly)



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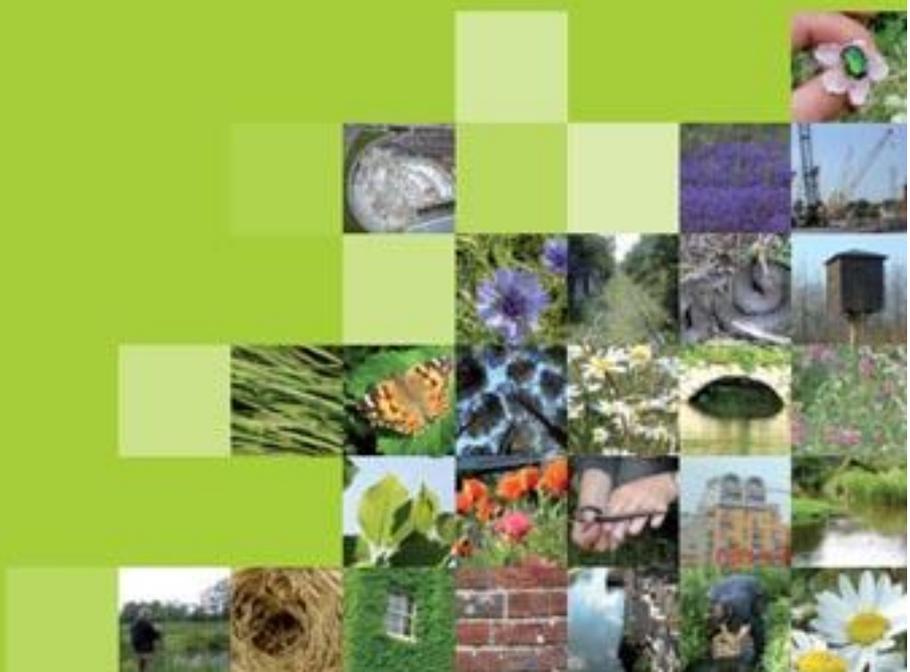
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Peckham and Nunhead AAP: Sites of Importance for Nature Conservation
background paper - appendices

**Appendix 9:
Surrey Canal Walk phase 1 habitat survey**



Surrey Canal Walk Southwark

Preliminary Ecological Appraisal

Report for London Borough of Southwark

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Contents

Executive Summary	1
1 Introduction	3
2 Methodology	5
3 Results	7
4 Evaluation	9
5 Conclusions and Recommendations	14
References	18
Appendix 1: Habitat Survey Map	20
Appendix 2: Plant Species List	22
Appendix 3: Photographs	26
Appendix 4: Legislation & Planning Policy	28
Appendix 5: Species of Value to Wildlife	41

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Executive Summary

The Ecology Consultancy was commissioned by the London Borough of Southwark to carry out a preliminary ecological appraisal and nature conservation evaluation of Surrey Canal Walk, Peckham. The survey was commissioned to support the proposal to designate the site as a Site of Importance for Nature Conservation. The proposed designation forms part of the Peckham and Nunhead Area Action Plan (London Borough of Southwark, 2012). The main findings of the surveys are as follows:

- The majority of the site comprised mature and young trees scattered throughout extensive amenity grassland with occasional tall ruderal vegetation, dense scrub and formal beds of introduced shrubs. None of the habitats present were rare, long established or notable for other reasons but some; particularly the mature broadleaved trees are unlikely to be locally common.
- The site accords with the London BAP (Biodiversity Action Plan) for Parks and Urban Greenspaces and the Southwark BAP. These BAPs relate predominantly to opportunities for enhancements rather than current ecological value of the habitats present. A number of flagship species associated with the Southwark BAP are likely to be present and others could be encouraged through further habitat enhancements.
- Plant species diversity was low (circa 42 self-established species), none were rare.
- Mature trees, shrubs and scrub present are likely to provide foraging and breeding habitat for a range of common birds including some Biodiversity Action Plan (BAP) species such as house sparrow. Although numbers present would be limited by available habitat there is the potential for locally significant populations to be present.
- Mature and young trees, introduced shrub, scrub, tall ruderal vegetation and amenity grassland habitats are likely to support a limited range of widespread invertebrates.
- Trees at the site were of low potential for roosting bats. On-site bat foraging habitat was extensive but of low quality, connectivity to off-site habitat was considered to be good however, levels of light pollution are likely to be high. It is considered that the likelihood of roosting bats being present on site is low.
- In summary the site is considered to be of local value for nature conservation due to the presence of mature trees, an uncommon feature within the wider landscape. This habitat is of limited extent and recent origin, is readily re-creatable and predominantly planted. Such a habitat is likely to be common within the borough of Southwark but appears to be uncommon in Peckham.

- The site has habitats with potential to support legally protected species including bats, birds, widespread reptiles, amphibians and invertebrates. Any proposed enhancements at the site must therefore comply with the relevant wildlife legislation for such fauna.

1 Introduction

BACKGROUND

- 1.1 The Ecology Consultancy was commissioned by the London Borough of Southwark to produce a report on the baseline ecological conditions of Surrey Canal Walk. The site is located within Peckham in the London Borough of Southwark and is centred on Ordnance Survey Grid Reference TQ 340 772. This report contains the results of a preliminary ecological appraisal carried out on the 26th July 2012. It describes the key ecological features of the site, provides an evaluation of the importance of ecological features at the site and makes recommendations for enhancing the sites ecological value.

SCOPE OF THE REPORT

- 1.2 This report is based on a desk top study, and field survey using standard Phase 1 survey methodology (JNCC, 2010¹), as adapted for use in Greater London by the Greater London Authority (GLA 2002)². This approach is designed to identify broad habitat types at a site, to identify the potential of habitats to support protected species, and to assist in providing an overview of the ecological interest at a site. It is the most widely used and professionally recognised method for initial ecological site appraisal.
- 1.3 Ecological receptors at the site were evaluated according to a geographic scale as recommended in Institute of Ecology and Environmental Management's Guidelines for Ecological Impact Assessment in the United Kingdom³ and the GLA's criteria for selection of Sites of Importance for Nature Conservation (SINCs) in London.

SITE CONTEXT AND STATUS

- 1.4 The site is approximately 3.15 hectares (ha) in size and is a public pathway/park. The survey area was a long linear path. Habitats comprised numerous mature and young trees scattered throughout extensive amenity grassland with tall ruderal vegetation,

¹ JNCC, (2010), Handbook for Phase 1 habitat survey -a technique for environmental audit, ISBN 0 86139 636 7

² Greater London Authority (GLA) (2002) Connecting with London's Nature, The Mayor's Biodiversity Strategy

³ Institute of Ecology and Environmental Management (2006) *Guidelines for Ecological Impact Assessment in the United Kingdom* (version 7 July 2006). <http://www.ieem.org.uk/ecia/index.html>

introduced shrub and scattered scrub. At the time of the survey the site was well maintained; the majority of the amenity grass had recently been cut.

- 1.5 The site is located between the A202 (Peckham High Street) which forms the southern boundary and Burgess Park along the northern boundary. The western and eastern limits were bound by residential homes and gardens, with Jowett Street Park forming a small area of the centre of the site.
- 1.6 None of the site is covered by statutory nature conservation designations. The nearest statutory site is the Nunhead Cemetery Local Nature Reserve (LNR) located approximately 1557 metres (m) south east of the site. The most notable nearby ecological feature is Burgess Park Site of Borough Grade II Importance for Nature Conservation (SINC), which lies within the northern limit of the site.

2 Methodology

EXTENDED PHASE 1 HABITAT SURVEY

- 2.1 A walkover survey of Surrey Canal Walk site was carried out by Sabrina Bremner (Ecologist) and Alexandra Davey (Assistant Ecologist) on the 26th July 2012. This followed standard Phase 1 methodology (JNCC 2010) mapping the habitats and noting dominant flora species present. This was supplemented by a desk-top study using on-line mapping services for information on statutory designated sites (www.magic.gov.uk and <http://www.natureonthemap.org.uk/map.aspx>). In addition, the UK (JNCC, 2010), London (London Biodiversity Partnership, 2010: <http://www.lbp.org.uk>) and the Southwark Biodiversity Action Plan (BAP) (London Borough of Southwark, 2007) were reviewed for those species and habitats that may, or have the potential to be, present at the site.
- 2.2 A habitat plan of the site is provided in Appendix 1. A full list of plant species identified onsite, along with an assessment of their abundance is provided in Appendix 2. Photographs of the site are shown in Appendix 3.
- 2.3 Incidental records of birds and other fauna noted during the course of the habitat survey were also compiled. Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

SITE EVALUATION

- 2.4 The assessment of the site's ecological features and attributes has been undertaken in line with the 2006 Institute of Ecology and Environmental Management (IEEM) guidelines for Ecological Impact Assessment (EclA). These guidelines aim to provide consistency in the approach to evaluating the importance of ecological features and any impact that a new development would have upon them.
- 2.5 The value of ecological features is defined according to the following geographical scale:
- International;
 - UK;
 - National (i.e. England/Northern Ireland/Scotland/Wales);
 - Regional;
 - County (or Metropolitan - e.g. in London);

- District (or Unitary Authority, City, or Borough);
- Local or Parish;
- Within zone of influence only (which might be the project site or a larger area);
and
- Negligible value.

2.6 The assessment of value for a given feature draws on a range of ecological attributes including:

- The presence of designated sites or BAP habitats or BAP species;
- The presence of rare species or significant populations of species, or populations at the edge of a species' distribution;
- The presence of ancient, rare, fragile or vulnerable habitats and those that are good examples of their type;
- The presence of rare or diverse assemblages of habitats or species; and
- The potential value where there is a possibility of increasing habitat or population size or connectivity or of improving habitat quality.

2.7 In addition, the site has been evaluated using local criteria for designation of non-statutory wildlife sites provided by the Greater London Authority (GLA) in *Connecting with London's nature the Mayor's Biodiversity Strategy* (GLA 2002).

LIMITATIONS

2.8 It should be noted that, whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment. This Preliminary Ecological Assessment does not constitute a full botanical survey, or a Phase 2 survey that would include accurate GIS mapping for invasive or protected plant species.

2.9 The site evaluation provides an overview of the site's ecological value using recognised locally developed criteria and is therefore sufficient to support any decisions for designation in the Area Action Plan. However, it is not based on detailed surveys. While unlikely, it should be recognised that any future surveys could provide records for rare species that would not have been detected in the current survey.

3 Results

DESK STUDY

- 3.1 The following information regarding the present and historical ecological interest of the site was supplied by the online desk study. The data covers a standard 1km radius search area.
- 3.2 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded. Records include information on the following:

Nature conservation designations

- 3.3 **Statutory Sites of Importance for Nature Conservation:** The site is not subject to statutory nature conservation designations, such as Special Protection Areas (SPAs), Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs) or Local Nature Reserves (LNRs). The desk-based search shows that there are no sites with European or National statutory designations within a 1km radius of the site.
- 3.4 The nearest statutory designated site is Nunhead Cemetery LNR which lies approximately 1557 metres (m) south east of the site. This site is described as a large area of broadleaved woodland which supports a good population of breeding birds and 16 species of butterfly, including the nationally scarce white-letter hairstreak *Strymonidia w-album*.
- 3.5 **Non-statutory sites of nature conservation importance:** The nearest SINC (Site of Importance for Nature Conservation) within the 1km search area is Burgess Park Site of Borough Grade II Importance for Nature Conservation, which forms the northern limit of the site. This is a large park comprising lakes with emergent vegetation, a nature area, mature and young trees, shrubs, rough and amenity grassland. The mosaic of habitats supports a range of waterfowl. Habitats shared with Surrey Canal Walk include amenity grassland, scattered mature trees, scattered scrub and tall ruderal vegetation.

EXTENDED PHASE 1 HABITAT SURVEY

- 3.6 Please refer to the habitat map in Appendix 1 for the locations of the features of ecological interest described below.

Scattered trees

- 3.7 Species of mature and young tree were scattered throughout the site, including young specimens planted in 2011 as part of the Friends of Burgess Park 'Wild and Edible' project. Species included ash *Fraxinus excelsior*, London plane *Platanus x hispanica*, lime *Tilia* sp., Norway maple *Acer platanoides*, and cherry *Prunus* sp., apple *Malus domestica*, damson *Prunus domestica* ssp. *insititia*, rowan *Sorbus aucuparia*. A bird box was noted within the trees in the northern limit of the site (Target note 3, Appendix 1).

Amenity grassland and tall ruderal vegetation

- 3.8 Amenity grassland was present throughout the site. Species included perennial rye grass *Lolium perenne*, red fescue *Festuca rubra*, daisy *Bellis perennis*, white clover *Trifolium repens*, docks *Rumex* spp., ribwort plantain *Plantago lanceolata*, cut-leaf cranesbill *Geranium dissectum*, meadow buttercup *Ranunculus acris*, and dandelion *Taraxicum* sp. Tall ruderal vegetation was present predominantly in the northern limit of the site where it was tussocky and dense, and in discrete areas of disturbed ground under tree canopies where vegetation was sparse. Species included hedge bindweed *Calystegia sepium*, cow parsley *Anthriscus sylvestris*, common nettle *Urtica dioica*, lesser burdock *Arctium minus*, teasel *Dipsacus fullonum*, cat's-ear *Hypochaeris radicata*, wall barley *Hordeum murinum*, (Target note 2, Appendix 1)

Introduced shrub and dense scrub

- 3.9 Areas of introduced shrub were present in formal beds predominantly in the northern limit of the site. Species included barberry *Berberis* sp., hedge Veronica *Hebe* Sp., California lilac *Ceanothus* sp., cotoneasters *Cotoneaster* sp., and firethorn *Pyracantha coccinea*. Dense scrub was present along the south western boundary; species included bramble *Rubus fruticosus*, blackthorn *Prunus spinosa*, hazel *Corylus avellana*, hawthorn *Crataegus monogyna* and ivy *Hedera helix*. Dense ivy was noted to be growing over numerous walls (Target note 1, Appendix 1).

4 Evaluation

Geographic evaluation

- 4.1 **Features of International Value:** Features of international value are principally sites covered by international legislation or conventions such as those sites designated under the Habitats Regulations which implements the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive). Sites designated at this level include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) which form the Natura 2000 network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). The regulations deal mainly with protection afforded to habitats, however, they also give protection to certain species of flora and fauna including bats and great crested newts.
- 4.2 The site does not form part of a site of international importance for nature conservation and is distant from any such sites. The site has habitats with potential to support legally protected species including bats, birds, widespread reptiles, amphibians and invertebrates.
- 4.3 Based on habitat quality and review of existing data, it is considered likely that the site would support roosting bats such as soprano pipistrelle *Pipistrellus pygmaeus* in low numbers and low foraging activity. The site's value for bats is unlikely to be important in the local context.
- 4.4 **Features of national importance:** Features of national importance include SSSIs which are designated under the Wildlife and Countryside Act 1981 (as amended) as well as species such as widespread reptiles which are subject to national legislation rather than international legislation. The site does not form part of a site of national importance for nature conservation and is distant from any such sites. The site may support breeding birds, which are protected under the Wildlife and Countryside Act 1981 (as amended). The site may also support species covered by the UK BAP and which are therefore material considerations in determining planning applications. The UK BAP species present or potentially present at the site is house sparrow *Passer domesticus* and song thrush *Turdus philomelos*. Due to the limited extent of suitable habitat on site for these species, it is considered that populations present would be of no more than local importance.

- 4.5 The site does not meet the criteria for the UK Biodiversity Action Plan (BAP) for Open Mosaic Habitats on Previously Developed Land, due to the limited extent and quality of this habitat at the site.
- 4.6 **Features of regional (i.e. Greater London) importance:** Sites of Metropolitan Importance for Nature Conservation (i.e. sites considered to be of London-wide importance for wildlife) are defined as being '*... those sites which contain the best examples of London's habitats, sites which contain particularly rare species, rare assemblages of species or important populations of species...*'
- 4.7 As shown in the site evaluation using local criteria for designation of non-statutory wildlife sites⁴ in Table 1 below, the site lacks any features that would justify designation at the metropolitan level.
- 4.8 The London BAP habitats and species present or potentially present at the site are as follows: Parks and Urban Green Spaces, and house sparrow. The London BAP for Parks and Urban Green Spaces relate to the potential for enhancing their wildlife value rather than intrinsic ecological importance of existing habitats. As discussed below, populations of house sparrow are unlikely to exceed local value.
- 4.9 **Features of borough (i.e. Southwark) importance:** Sites of Borough Importance for Nature Conservation are defined as being '*...sites which 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...*'. A review of Sites of Borough (grade I and II) Importance for Nature Conservation in the vicinity of the site and the application of local criteria below shows that the site is not likely to be important at the borough level in terms of its habitats or species.
- 4.10 The Southwark BAP is applicable to the site. This relates largely to the potential for enhancing the wildlife value of the site and is intended to encourage opportunities for wildlife through land management. Associated with each BAP habitat are a number of 'flagship species' (London Borough of Southwark, 2007) which are characteristic or of specific importance to parks and open spaces in Southwark and for which

⁴ Connecting with London's nature the Mayor's Biodiversity Strategy Greater London Authority 2002

conservation actions should be developed. Of these species the site is currently considered suitable for house sparrow, buttercups *Ranunculus* spp., holly blue *Celastrina argiolus* and meadow brown *Maniola jurtina* butterflies although this is likely to be at the Local level only, due to the limited extent and quality of existing habitats.

- 4.11 **Features of local (i.e. Peckham) importance:** The GLA defines Sites of Local Importance for Nature Conservation as those that ‘...are, or may be, of particular value to people nearby (such as residents or schools)...’ It also notes that ‘Only those sites that provide a significant contribution to the ecology of an area are identified’. As shown in Table 1 below the scattered mature tree and tall ruderal vegetation habitats at the site are of value for nature conservation in this context, as despite their limited extent they are locally uncommon. Therefore, the site does contain some (limited) habitats of local importance for nature conservation. The site is freely accessible by members of the public, and is therefore of value to the local community as an area of open space, for access to further and for enjoying common wildlife.
- 4.12 **Features of importance within the zone of influence only (within the site and immediate vicinity):** With reference to Paragraph 4.9 above and Table 1 below it can be seen that the following habitats at the site are of value within the site and immediate vicinity only: amenity grassland, introduced shrub and scrub. The habitat survey, data search and level of connectivity to suitable habitat indicate that the site’s importance for invertebrates is also at this geographic level.
- 4.13 **Secondary or supporting value:** The site forms part of the ecological corridor shared with Burgess Park and Jowett Street Park and the adjacent allotments, and also supports the mosaic of habitats present within the Parks.

EVALUATION USING LOCAL CRITERIA

4.14 Table 1 below provides an evaluation using GLA criteria for designation of non-statutory wildlife sites. The application of local criteria to the site allows a more complete assessment of whether they are of significance for nature conservation at the regional, borough or local scale.

Table 1: Evaluation of nature conservation interest at Surrey Canal Walk using GLA criteria

GLA Criteria	Remarks
Representation	The site comprises areas of scattered mature and young trees, amenity grassland, tall ruderal vegetation and amenity planting; habitats that are typical of inner urban residential areas in terms of their wildlife value. The site is likely to so support a limited and typical assemblage of widespread bird and invertebrate species and low populations of widespread bat species.
Habitat rarity	The site was dominated by amenity grassland, mature and young planted trees, with smaller areas of tall ruderal vegetation, planted shrubs, herbaceous perennials and scrub. While none of these habitats are rare in the London and borough context, based on a review of aerial photography this habitat mosaic is locally uncommon.
Species rarity	No rare plants were recorded at the park, and it lacks habitat likely to support rare bats, reptiles, amphibians, invertebrates or birds, although some common but declining bird, reptile, amphibian and invertebrate species covered by UK and London BAPs are likely to be present.
Habitat richness	The site supported a limited range of locally uncommon habitats comprising mature trees of a low number of species and tall ruderal vegetation of a moderate number of species.
Species richness	The site did not support a diverse flora and the site's location and the nature and extent of habitats present indicate that it will not support diverse assemblages of bats, birds or invertebrates.
Size	All habitats at the site were of limited extent which reduces the potential for large populations or diverse assemblages of species
Important populations of species	The site may support populations of widespread bird species including certain BAP species, but the limited extent of habitats present will limit population size and significance for nature conservation.
Ancient character	Not applicable. All habitats at the site are of recent origin.
Fragility	All habitats on site are resilient to most impacts other than extreme disturbance, drought or gross inputs of pollution. Due to the site's location all fauna present will be habituated to noise, night-time lighting, disturbance etc. Therefore none of the species and habitats at the site are of conservation significance due to their fragility.

Table 1: Evaluation of nature conservation interest at Surrey Canal Walk using GLA criteria

GLA Criteria	Remarks
Recreatability	All habitats at the site are readily recreatable in the medium term including mature trees likely to be c40 years old.
Typical urban character	The site is typical of urban areas; however urban habitats of high value for nature conservation such as canals, species rich wasteland and old parkland are not present.
Cultural or historic character	Not applicable
Geographic position	The site forms part of Jowett Street Park and Burgess Park.
Access	Full public access.
Use	Recreational
Potential	Enhancements to planting and maintenance could provide opportunities to implement the London BAPs for Parks and Urban Greenspaces and the Southwark BAP.
Aesthetic appeal	The site is actively used as a public park and is an attractive open area for the public.

4.15 The evaluation as a whole shows that habitats at Surrey Canal Walk do not meet local criteria for designating Sites of Metropolitan, or Borough Importance for Nature Conservation. However, the site does meet some criteria for Local Importance for Nature Conservation. The standards for designating sites at each of these geographic levels are summarised in Paragraphs 4.4 to 4.9 above.

5 Conclusions and Recommendations

CONCLUSIONS

- 5.1 The habitats at Surrey Canal Walk were of ecological importance in the context of the local area only. The habitats at the site corresponded with the Parks and Urban Greenspaces London BAP Habitat type, and the Southwark BAP. These BAPs relate largely to opportunities for enhancement rather than current ecological value of the habitats covered.
- 5.2 The site has habitats with potential to support legally protected species including bats, birds, widespread reptiles, amphibians and invertebrates. Any proposed enhancements at the site must therefore comply with the relevant wildlife legislation for such fauna.
- 5.3 The site is likely to support certain common and widespread but declining species of bird included the house sparrow which is a UK, London and Southwark BAP species. A review of existing data, the status of these species in London and Southwark, and assessment of onsite and surrounding habitat suggests that the populations present are of ecological importance in the local (Peckham) context.
- 5.4 Recommendations are made below to enhance the nature conservation value of Surrey Canal Walk. These aim to enhance the site by improving the quality of existing London and Southwark BAP habitats, with specific aims to enhance for BAP species such as house sparrow, dunnock *Prunella modularis* and starling *Sturnus vulgaris*, and for Southwark's flagship species associated with uncut grassland such as buttercups and certain species of butterfly .

RECOMMENDATIONS

- 5.5 *Bats*: In order to avoid potential impacts to roosting bats it is recommended that any trees to be removed or pruned are first assessed for their likelihood to support bat roosts. If these surveys cannot rule out the presence of bat roosts, further species specific surveys such as climbed inspections will be required.
- 5.6 *Breeding birds*: The site contains scattered trees, introduced shrub, tall ruderal vegetation, scrub, and amenity grassland of potential to support nesting and foraging birds. Birds are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence, amongst other things, to kill, injure or take any

wild bird or take, damage or destroy the nest of any wild bird while it is in use or being built. Measures necessary to avoid the destruction of nests, eggs and young birds will be required if enhancement measures are undertaken that would affect trees, scrub and hedges between March and August inclusive. Any future planting should favour native species of local province.

- 5.7 **Mature Trees:** Any trees or mature shrubs that are likely to be impacted by proposals should be protected in accordance with BS 5837 2012 *Trees in relation to design, demolition and construction*.

Habitat enhancements

- 5.8 The following enhancement measures are recommended in line with the relevant London and Southwark BAPs:
- 5.9 **Landscape planting enhancements:** Additional wildlife garden planting should be incorporated into site designs to complement existing trees, scrub, introduced shrub, and amenity grassland to provide foraging, cover and nesting for birds and invertebrates, including BAP species house sparrow and song thrush. Any planting scheme should utilise a high percentage of native tree, shrub and climbing species, providing nectar, pollen and berries. Climbers could be planted along the edges of fences and/or walls where they will provide a green façade of potential value to foraging birds and insects.
- 5.10 Where horticultural stock that requires hard pruning is used such as willow *Salix* sp., dogwood *Cornus* sp., hazel *Corylus* sp. ash, poplar *Populus* sp. etc., small sections should be cut to the ground (coppiced) on an alternating basis e.g. every 5-10 years, to ensure that a good proportion of flowering/fruitleting growth is present in any given season. Works should be carried out in the late winter when disturbance to wildlife and removal of flowering or fruiting material providing valuable forage will be minimal. The arisings could be used to create habitat piles in existing areas of tree/shrub planting or other undisturbed areas of the site.
- 5.11 Where possible trees, introduced shrub and dense scrub should be under-planted with shrubs and herbaceous material to create greater structure within the planting and to provide denser cover for wildlife. Enhancements to the existing tree lines and formal beds should aim to provide a continuous shrub layer of dense foliage under larger canopy trees. Important shrub layer species include hazel, oak and honeysuckle; others of value

are ash, blackthorn and hawthorn. Dead wood should be retained as invertebrate habitat in undisturbed areas of the site.

- 5.12 The decline in house sparrows has been linked to reduction in invertebrate prey for chicks and the inclusion of planting likely to provide suitable foraging is recommended. Landscaping should include native deciduous shrubs and trees and a diversity of grasses and herbaceous perennials to set seed and remain in situ throughout the winter would promote the abundance of a range of foliar invertebrate species.
- 5.13 House sparrows require dense cover for nesting that could be achieved through additional dense plantings of mixed deciduous and evergreen shrubs. This would also provide nesting habitat for dunnoek *Prunella modularis* and the inclusion of berrying species would benefit foraging starling *Sturnus vulgaris*, both London BAP species. The use of bark chippings or other organic mulch would also improve foraging for all three species.
- 5.14 **Enhancement of amenity grassland for invertebrates, reptiles and amphibians:** The inclusion of a good variety of low-growing wildflowers such as birds-foot-trefoil *Lotus corniculatus*, selfheal *Prunella vulgaris*, ladies bedstraw *Galium verum* and hawkbits *Leontodon* spp. to create a daisy lawn in any suitable areas within the site. This will provide foraging for a variety of widespread invertebrates throughout the summer if cutting is not too frequent. This would enhance the quality of such grassland and potentially improve habitat for Southwark flagship plant and invertebrate species (London Borough of Southwark, 2007): buttercups, holly blue and meadow brown. A list of recommended species is provided in Appendix 3.
- 5.15 **Artificial bird boxes:** To provide bird nesting opportunities a minimum of five bird nesting boxes could be erected on any existing standard trees, as follows:
- Open-fronted and hole-fronted woodcrete bird boxes (such as Schwegler) are recommended as they include a broad range of designs, are long lasting compared to wooden boxes and insulate occupants from extremes of temperature and condensation. Boxes should be placed apart from one another, ideally on different building facades/fences/trees and not be lit by any new lighting proposals for the site.

- Boxes will require annual maintenance which is normally carried out over the winter months. The following models are most appropriate: 1SP, 1B hole-fronted (26mm and 32mm entrance hole), and 2H open-fronted (120mm opening).
- Ideally boxes should be positioned so they face in an easterly or westerly direction, out of direct sunlight. They should be at least 3m above ground level (preferably 3-6m), and away from bird feeders and a discrete distance away from other nest boxes, ideally on different facades. Colony boxes, such as the Schwegler 1SP sparrow terrace can be placed adjacent to one another.

5.16 *Good horticultural practice.* Good horticultural practice should be utilised in any landscaping scheme and should include the following simple methods to minimise off-site ecological impacts:

- The use of peat-free composts and soil conditioners to reduce the loss of important peat bogs.
- Feeding of plants using organic based fertilisers and improving the soil structure by incorporating organic material, preferably composted waste.
- The use of mulches to lock moisture into the soil. ‘Water-wise gardening’ helps reduce consumption of drinking water which is especially important during drought periods.
- The use of pesticides (herbicides, insecticides, fungicides and slug pellets etc) should be discouraged to prevent cumulative fatal effects to animals via the food chain, particularly invertebrates, birds and/or mammals. Any pesticides used should be non-residual.

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Appendix 1: Habitat Survey Map



KEY

- Site boundary
- Scattered trees
- Amenity grassland
- Arable
- Tall ruderal
- Introduced shrub
- Dense scrub
- Hardstanding
- Target note



This plan is provided solely for the purpose of supporting the description of the ecological features of the site as contained in the accompanying report.



ARC/INFO Desktop 10.0.1 layout - Ecology Consultancy 15.03.05 Beta

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Appendix 2: Plant Species List

Plant Species List for Surrey Canal Walk compiled from the Preliminary Ecological Appraisal survey carried out on the 26th July 2012

Scientific nomenclature follows Stace (2010) for vascular plant species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. Please note that this plant species list was generated as part of a Preliminary Ecological Appraisal, does not constitute a full botanical survey and should be read in conjunction with the associated report.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, LD = Locally Dominant

To qualify the value of the feature the following codes were used:

p=planted, s=seedling or sucker, t=tree

Latin Name	Common name	Abundance	Qualifiers
<i>Acer campestre</i>	Field maple	R	tp
<i>Acer platanoides</i>	Norway maple	O	tp
<i>Anthriscus sylvestris</i>	Cow parsley	R	
<i>Arctium minus</i>	Lesser burdock	R	
<i>Arrhenatherum elatius</i>	False oat-grass	O	
<i>Artemisia spp.</i>	Mugworts	LD	
<i>Ballota nigra</i>	Black horehound	R	
<i>Bellis perennis</i>	Daisy	O	
<i>Berberis sp.</i>	Barberry	R	p
<i>Betula pendula</i>	Silver birch	R	tp
<i>Buddleia davidii</i>	Butterfly bush	R	s
<i>Calystegia sepium</i>	Hedge bindweed	O	
<i>Ceanothus sp</i>	Californian Lilac	R	ps
<i>Chenopodium album</i>	Fat-hen	R	
<i>Chenopodium sp.</i>	Goosefoot	R	
<i>Cirsium sp.</i>	Thistle	R	
<i>Corylus avellana</i>	Hazel	R	tsp
<i>Cotoneaster spp.</i>	Cotoneasters	R	ps
<i>Crataegus monogyna</i>	Hawthorn	O	stp
<i>Dactylis glomerata</i>	Cock's-foot	R	
<i>Dipsacus fullonum</i>	Wild teasel	R	

Latin Name	Common name	Abundance	Qualifiers
<i>Euonymus sp.</i>	Spindle	R	ps
<i>Fagus sylvatica</i>	Beech	R	spt
<i>Festuca rubra</i>	Red fescue	F	
<i>Ficus carica</i>	Fig	R	tp
<i>Fraxinus excelsior</i>	Ash	F	tp
<i>Fraxinus ornus</i>	Manna ash	R	tp
<i>Geranium dissectum</i>	Cut-leaved crane's-bill	R	
<i>Geum urbanum</i>	Wood avens	R	
<i>Hebe sp.</i>	Hedge veronica	R	ps
<i>Hedera helix</i>	Ivy	R	
<i>Heracleum sphondylium</i>	Hogweed	R	
<i>Hieracium spp.</i>	Hawkweeds	R	
<i>Hordeum murinum</i>	Wall barley	R	
<i>Hypochaeris radicata</i>	Cat's-ear	R	
<i>Ilex aquifolium</i>	Holly	R	ts
<i>Lamium album</i>	White dead-nettle	R	
<i>Lamium amplexicaule</i>	Henbit dead-nettle	R	
<i>Lathyrus sp.</i>	Everlasting-pea	R	
<i>Lolium perenne</i>	Perennial rye-grass	F	
<i>Lonicera japonica</i>	Japanese honeysuckle	R	p
<i>Lonicera nitida</i>	Wilson's honeysuckle	R	ps
<i>Malus domestica</i>	Apple	R	tp
<i>Malus sylvestris</i>	Crab apple	R	tp
<i>Malva sp.</i>	Mallow	R	
<i>Myosotis arvensis</i>	Field forget-me-not	R	
<i>Myrrhis odorata</i>	Sweet Cicely	R	
<i>Parthenocissus quinquefolia</i>	Virginia-creeper	O	p
<i>Plantago lanceolata</i>	Ribwort plantain	R	
<i>Plantago major</i>	Greater plantain	R	
<i>Platanus x hispanica</i>	London plane	O	tp
<i>Polygonatum multiflorum</i>	Solomon's-seal	R	p?
<i>Polygonum spp.</i>	Knotgrasses	R	
<i>Prunus sp.</i>	Plum	O	tp
<i>Prunus domestica ssp. insititia</i>	Damson	R	tp
<i>Prunus laurocerasus</i>	Cherry laurel	R	ps
<i>Prunus lusitanica</i>	Portugal laurel	R	sp
<i>Prunus padus</i>	Bird cherry	R	ps
<i>Prunus sp.</i>	Cherry	O	tp

Latin Name	Common name	Abundance	Qualifiers
<i>Prunus spinosa</i>	Blackthorn	O	ps
<i>Pyracantha coccinea</i>	Firethorn	R	ps
<i>Quercus robur</i>	Pedunculate oak	R	tp
<i>Ranunculus acris</i>	Meadow buttercup	O	
<i>Ranunculus ficaria</i>	Lesser celandine	R	
<i>Ranunculus repens</i>	Creeping buttercup	O	
<i>Rosa sp.</i>	Rose	R	p
<i>Rubus fruticosus agg.</i>	Bramble	O	s
<i>Rumex sp.</i>	Dock	R	
<i>Sambucus nigra</i>	Elder	O	t
<i>Senecio sp.</i>	Ragwort	R	
<i>Silene dioica</i>	Red campion	R	
<i>Sisymbrium strictissimum</i>	Perennial rocket	R	
<i>Sonchus asper</i>	Prickly sow-thistle	R	
<i>Sorbus aria</i>	Common whitebeam	R	tp
<i>Sorbus aucuparia</i>	Rowan	R	tp
<i>Spiraea spp.</i>	Brideworts	R	ps
<i>Symphoricarpos sp.</i>	Snowberries	R	ps
<i>Symphytum x uplandicum</i>	Russian comfrey	R	
<i>Taraxacum sp.</i>	Dandelion	O	
<i>Tilia cordata</i>	Small-leaved lime	R	tp
<i>Tilia platyphyllos</i>	Large-leaved lime	O	
<i>Trifolium repens</i>	White clover	O	
<i>Urtica dioica</i>	Common nettle	R	
<i>Valeriana officinalis</i>	Common valerian	R	
<i>Viburnum opulus</i>	Guelder-rose	R	ps
<i>Viola riviniana</i>	Common dog-violet	R	

Appendix 3: Photographs

Photograph 1

View of tall ruderal vegetation in the northern limit of the site; part of Burgess Park



Photograph 2

View of southern limit, showing mature trees in background and well maintained amenity grassland.



Photograph 3

View of central section; scattered trees and amenity grassland



Appendix 4: Legislation & Planning Policy

Important notice: This section contains details of legislation and planning policy applicable in Britain only (i.e. not including the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law.

A NATIONAL LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive⁵ is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991;
- Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment & Rural Communities (NERC) Act 2006;
- Protection of Badgers Act 1992;
- Wild Mammals (Protection) Act 1996.

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected by

⁵ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2010 (which includes smooth snake, sand lizard, great crested newt and natterjack toad), all bat species, otter, dormouse and some plant species) are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Directive, the term ‘deliberate’ is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.
- The Conservation of Habitats and Species Regulations 2010 does not define the act of ‘migration’ and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.
- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three ‘tests’: i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Bats

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:
 - a) to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young;
 - (ii) to hibernate or migrate³
 - b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also currently protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level);
- Intentional or reckless obstruction of access to any place of shelter or protection;
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to bats liable to affect development works?

A European Protected Species (EPS) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity of a local population.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy an egg of any wild bird;
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- Intentional or reckless disturbance of dependent young of such a bird.

How is the legislation pertaining to birds liable to affect development works?

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August⁶. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Those species of bird listed on Schedule 1 are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Herpetofauna (Amphibians and Reptiles)

Widespread species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Species such as the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis* are listed in respect to Section 9(1) & (5). For these species, it is prohibited to:

- Intentionally kill or injure these species
- Sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

⁶ It should be noted that this is the main breeding period. Breeding activity may occur outwith this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

Common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Lissotriton vulgaris* and palmate newt *L. helveticus* are listed in respect to Section 9(5) only which affords them protection against sale, offering or exposing for sale, possession or transport for the purpose of sale.

How is the legislation pertaining to herpetofauna liable to affect development works?

A European Protected Species (EPS) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect the breeding sites or resting places of those amphibian and reptile species protected under The Conservation Habitats and Species Regulations 2010. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the Wildlife and Countryside Act 1981 (as amended).

Wild Mammals (Protection) Act 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to:

- Mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Invasive Plant Species

Certain species of plant, including Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera* are listed on

Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Such species are generally non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to plant or otherwise cause these species to grow in the wild.

How is the legislation pertaining to invasive plants liable to affect development works?

Although it is not an offence to have these plants on your land *per se*, it is an offence to *cause* these species to grow in the wild. Therefore, if they are present on site and development activities (for example movement of spoil, disposal of cut waste or vehicular movements) have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures are in place to prevent this happening prior to the commencement of works.

B NATIONAL AND EUROPEAN LEGISLATION AFFORDED TO HABITATS

Statutory Designations: National

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory **Sites of Special Scientific Interest** (SSSIs) under the National Parks and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as **National Nature Reserves** which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (Natura 2000 network) and globally (such as Wetlands of International Importance). See subsequent sections for details of these designations. Improved provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of **Limestone Pavement Orders**, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of **Marine Nature Reserves**, for which byelaws must be made to protect them.

Statutory Designations: International

Special Protection Areas (SPAs), together with **Special Areas of Conservation** (SACs) form the **Natura 2000** network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species Regulations 2010. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SPAs in UK offshore waters (from 12-200nm).

The Government is obliged to identify and designate SACs under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora). These are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are protected under The Conservation of Habitats & Species Regulations 2010. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SACs in UK offshore waters (from 12-200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

Statutory Designations: Local

Under the National Parks and Access to the Countryside Act 1949 **Local Nature Reserves** (LNRs) may be declared by local authorities after consultation with the relevant countryside agency. LNRs are declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation, and provide opportunities for research and education and enjoyment of nature.

Non-Statutory Designations

Areas considered to be of local conservation interest may be designated by local authorities as a **Wildlife Site**, under a variety of names such as **County Wildlife Sites** (CWS), **Listed Wildlife Sites** (LWS), **Local Nature Conservation Sites** (LNCS), **Sites of Biological Importance** (SBIs), **Sites of Importance for Nature Conservation** (SINCs), or **Sites of Nature Conservation Importance** (SNICIs). The criteria for designation may vary between counties.

Together with the statutory designations, these are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined. The level of protection afforded to these sites through local planning policies and development frameworks may vary between counties.

Regionally Important Geological and Geomorphological Sites (RIGS) are the most important places for geology and geomorphology outside land holding statutory designations such as SSSIs. Locally-developed criteria are used to select these sites, according to their value for education, scientific study, historical significance or aesthetic qualities. As with local Wildlife Sites, RIGS are a material consideration when planning applications are being determined.

C NATIONAL PLANNING POLICY

National Planning Policy Framework

The National Planning Policy Framework replaces PPS9 (from April 2012) and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species – presumably those listed as UK Biodiversity Action Plan priority

species – is also listed as a requirement of planning policy. In determining planning application, planning authorities have a duty 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.

The Natural Environment and Rural Communities Act 2006 and The Biodiversity Duty

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the ‘biodiversity duty’.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of ‘principal importance for the conservation of biodiversity.’ This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

D REGIONAL AND LOCAL PLANNING POLICY

The London Plan, Spatial Development Strategy for Greater London, July 2011 contains the following policy relevant to the site.

Policy 7.19

Policy 7.19 provides specific commentary on the need for a positive contribution to the protection, enhancement, creation and management of biodiversity within development proposals with a particular emphasis on achieving biodiversity action plan targets. It states that the Mayor will work with all relevant partners to ensure a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity in support of the Mayor’s Biodiversity Strategy. This means planning for nature from the beginning of the development process and taking opportunities for positive gains for nature through the layout, design and materials of development proposals and appropriate biodiversity action plans.... Development proposals should wherever possible, make a positive contribution to the protection, enhancement, creation and management of biodiversity, prioritise assisting in achieving targets in biodiversity action plans (BAPs) and/or improve access to

nature in areas deficient in accessible wildlife sites. Development proposals should also not adversely affect the integrity of European sites, and be resisted where they have significant adverse impact on European or nationally designated sites or on the population or conservation status of a protected species, or a priority species or habitat identified in a UK, London or appropriate regional BAP or borough BAP.

Southwark's Unitary Development Plan (2007) contains the following saved policies from Section 3: Environmental Principles that are relevant to the site:

Policy 3.1 Environmental effects

"Planning permission for the establishment of uses that would cause material adverse effects on the environment will not be granted, and proposals for activities that will have a material adverse impact on the environment and quality of life will be refused".

Policy 3.13 Urban design

"Principles of good urban design must be taken into account in all developments.....In designing new developments, consideration must be given to:

vi) Landscaping – Where appropriate, developments should include landscape design that enhances the area and biodiversity, for example through the use of green roofs"

Policy 3.26 Borough Open Land (BOL)

Within Borough Open Land planning permission will not be granted for development unless:

- i. It is ancillary to the use of the open space; and
- ii. It is small in scale; and
- iii. It does not detract from the site's open nature and character; and
- iv. It is required to enhance activities associated with the particular open space; and
- v. It positively contributes to the setting and quality of the open space.

Policy 3.28 Biodiversity

"The LPA will take biodiversity into account in its determination of all planning applications and will encourage the inclusion in developments of features which enhance biodiversity, requiring an ecological assessment where relevant.

Developments will not be permitted which would damage the nature conservation value of sites of importance for nature conservation (SINCs) and local nature reserves (LNRs) and/or damage habitats, populations of protected species or priority habitats/species identified in the United Kingdom, London or the Southwark biodiversity action plan. Where,

exceptionally, such developments are permitted, the Council will seek mitigation and/or compensation for the damage to biodiversity.

Where new sites of importance for nature conservation and local nature reserves are identified, these sites will be afforded protection under this policy and policy 3.27, Other Open Spaces”.

Reasons

The council has an obligation to protect biological diversity under national and international legislation, including the Convention on Biological Diversity (1992), The Habitats Directive (1992), National Parks and Access to the Countryside Act (1949) and the Wildlife and Countryside Act (1981). The council has a responsibility to protect and enhance biodiversity throughout Southwark and particularly to protect areas of nature conservation. Due to the intense pressure on land for development, it is important that areas of nature conservation value or ecological importance are identified and the flora and fauna associated with these areas are protected and enhanced as outlined in the council’s biodiversity action plan.

Access to wildlife also enables people to experience wildlife in an otherwise intensely urban environment, promoting well-being and providing a number of educational benefits. Sites of Importance for Nature Conservation and Local Nature Reserves are listed in Appendix 14.

Southwark Core Strategy Strategic Policy 11 – Open Spaces and Wildlife aims to...
“improve, protect and maintain a network of open spaces and green corridors that will make places attractive and provide sport, leisure and food growing opportunities for a growing population. We will protect and improve habitats for a variety of wildlife.

We will do this by

- *Continuing to protect important open spaces from inappropriate development. These will include parks, allotments, sports grounds, green chains, sites of importance for nature conservation (SINCS) and cemeteries. Large spaces of importance to all of London will be protected (Metropolitan Open Land) as well as smaller spaces of more borough-wide and local importance (Borough Open Land and Other Open Spaces)*
- *Protecting woodland and trees and improving the overall greenness of places, including through promoting gardens and local food growing.*
- *Promoting and improving access to and links between open spaces.*
- *Identifying and protecting open spaces that provide quiet areas and relative tranquillity.*

- *Requiring new development to help meet the needs of a growing population by providing space for children's play, gardens and other green areas and helping to improve the quality of and access to open spaces and trees, particularly in areas deficient in open space.*
- *Requiring new development to avoid harming protected and priority plants and animals and help improve and create habitat."*

E UK BAP

In 1994 the UK Government published its response to the Convention on Biological Diversity that it signed along with over 150 other nations at the Rio Earth Summit in 1992. Biodiversity – the UK Action Plan (HM Government 1994) and subsequent publications (e.g. UK Steering Group 1995) set out a programme for the national Biodiversity Action Plan (BAP), including the development of targets for biodiversity, and the techniques and actions necessary to achieve them. The national BAP includes lists of species that are of conservation concern, either because they are rare in an international or national context or have undergone serious declines in their populations in recent years. Species Action Plans have been prepared or are in preparation for a many of these species, whilst Habitat Action Plans are being produced for important or characteristic habitats identified in the plan.

F REGIONAL AND LOCAL BAPS

The site is covered by the regional BAP for London and the local BAP for the London Borough of Southwark. The habitats and species covered by the BAPs are reproduced below:

- Parks & urban greenspaces
- Woodland
- Built Up Areas and Gardens
- House sparrow.
- Grassland
- Hedge & scrub

Appendix 5: Species of Value to Wildlife

ORNAMENTAL AND NATIVE SPECIES OF WILDLIFE VALUE

The list below gives some easily sourced plants which are of proven value to wildlife. It includes a number of ornamental species which are not native and can be used in combination with native species in more formal situations. In informal landscapes the emphasis should be on the use of native species.

Where ornamental trees and shrub planting are proposed it is recommended that species producing abundant nectar rich flowers or berries palatable to birds are used. Such species include (non-invasive) varieties of Cotoneaster⁷ and firethorn *Pyracantha*. Additionally climbers should be planted on bare walls and fences where they will attract foraging birds and invertebrates.

Different horticultural varieties of the following species are commonly available, but where possible standard stock is advised, especially for native species. Single flowering plants should be chosen over double flowering plants. With exception of * (biennials) and ** (annuals) all species are perennial. **E** = Exotic, **N** = Native. Note: the list includes species that may be harmful if handled or ingested. Numerous sources of further information are available. See for instance *Poisonous Plants and Fungi: An Illustrated Guide*, M.R. Cooper, A.W. Johnson and E. Dauncey, TSO: 2nd edition, 2003 ISBN 100117028614

Tree

Cherry *Prunus spp.*, *P. avium* (wild cherry) **N**

Ash *Fraxinus excelsior* **N**

Crab apple *Malus sylvestris* **N**

Pear *Pyrus spp.* *Pyrus calleryana*

Small-leaved lime *Tilia cordata* (or similar hybrid) **N**

Silver birch *Betula pendula* **N**

Yew *Taxus baccata* **N**

Foxglove tree *Pawlonia tomentosa* **E**

Lacebarks *Hoheria spp.* *H. glabrata*, *H. lyallii* **E**

Tulip tree *Liriodendron tulipifera* **E**

nb: many of the shrub species below will form small trees when mature

⁷ Please refer to <http://www.defra.gov.uk/wildlife-pets/wildlife/management/non-native/documents/schedule9-list.pdf> for invasive species that should be avoided in landscaping plans.

Large Shrubs

- Shrubby veronica *Hebe spp.* E
Hawthorn *Crataegus monogyna* N
Blackthorn *Prunus spinosa* N
Rose *Rosa canina* (dog rose) *R. arvensis* (field rose) *R. pimpinellifolia* (burnet rose) N
Elder *Sambucus nigra* N
California lilac *Ceanothus arborea / spp.* E
Privet *Ligustrum vulgare* N/E
Common holly *Ilex aquifolium* N
Barberry *Berberis darwinii*, *B. thunbergii*, *B. x stenophylla* E
Daisy bush *Olearia x hastii*, *O. macrodonta* and *O. traversii* E
Firethorn *Pyracantha coccinea* E
Hazel *Corylus avellana* N
Guelder rose *Viburnum opulus* N
Wayfaring tree *Viburnum lantana* N
Buddleia *Buddleja davidii*, *B. alternifolia*, *B. globosa* E
Dogwood *Cornus sanguinea* N
Broom *Cytisus scoparius* N
Mexican orange bush *Choisya ternata* E
Laurustinus *Viburnum tinus* E
Portuguese laurel *Prunus lusitanica* E
Flowering currant *Ribes sanguineum* E
Cherry laurel *Prunus laurocerasus* E
Escallonia *Escallonia macrantha* E
Hardy fuchsia *Fuchsia magellanica* E
Buckthorn *Rhamnus cathartica* N
Spindle *Euonymus europaeus* N
Tutsan *Hypericum androsaemum* N
Yew *Taxus baccata* N

Herbaceous perennials and small shrubs

- Tree mallow *Lavatera spp. L. olblio*, *L. thuringiaca* E
Ice plant *Sedum spectabile* E
Lavender *Lavandula angustifolia*, *L. x intermedia* E

Globe thistle *Echinopsis ritro* **E**
Foxglove *Digitalis purpurea** or *D. lutea*, *D. x mertonensis* **N/E**
Michaelmas daisy *Aster novi-belgii* **E**
Teasel *Dipsacus fullonum** **N**
Sunflowers *Helianthus annus*** **E**
Red valerian *Centranthus rubra* **E**
Hemp agrimony *Eupatoria cannabinum* **N**
Common knapweed *Centaurea nigra* **N**
Black-eyed susan *Rudbeckia hirta*** or *R. fulgida* **E**
Rosemary *Rosmarinus officinalis* **E**
Rock rose *Cistus spp.* **E**

Climbers

Jasmine *Jasminum officinale* **E**
Ivy *Hedera helix* **N**
Climbing hydrangea *Hydrangea petiolaris* **E**
Honeysuckle *Lonicera periclymenum* or *L. japonica*, *L. fragrantissima*, *L. standishii* **N/E**
Spindle *Euonymus spp. E. fortunei* **N/E**
Clematis spp. *Clematis vitalba* or *C. armandii*, *C. alpina*, *C. montana*, *C. tangutica* **N/E**
Firethorn *Pyracantha atalantioides* **E**
Nasturtium *Tropaeolum majus*** **E**



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Peckham and Nunhead AAP: Sites of Importance for Nature Conservation
background paper - appendices

**Appendix 10:
Warwick Gardens ecological assessment**

Warwick Gardens SINC designation

1. Introduction

It is proposed to designate Warwick Gardens as a Site of Local Importance for Nature Conservation. The criteria developed by the London Ecology Unit and the field and desktop assessment of the site provide evidence for its designation.

2. Assessment criteria

The criteria used to evaluate this site were developed by the London Ecology Unit and uses widely recognised criteria to evaluate the nature conservation importance of sites. These were first published in the document 'Planning for nature conservation in London in 1985', and revised in the report Policy, criteria and procedures for identifying nature conservation sites in London, published in January 1994. The latter report was endorsed by the London Planning Advisory Committee in 1995.

The following criteria are used to ascertain Local Importance.

"A Site of Local Importance is one which is or may be of particular value for nearby residents or schools. These sites may already be used by schools for nature study or be run by management committees mainly composed of local people. Local sites are particularly important in areas otherwise deficient in nearby wildlife sites".

"Built-up areas more than one kilometre from an accessible Metropolitan or Borough site are defined as Areas of Deficiency. Further Local sites are chosen as the best available to alleviate this deficiency; such sites need not lie within the Area of Deficiency, but should be as close to it as possible. Where no such sites are available, opportunities should be taken to provide them by habitat enhancement or creation, by negotiating access and management agreements, or by direct acquisition".

3. Site assessment methodology

An ecological assessment was undertaken in 2009 by the Ecology Officer. This was not a rigorous examination of the site but rather a general walkover assessment of plants and species present at the time. This was complimented by a desktop study of the site using records from the London Records Centre.

4. The ecological value

The park is 1.53 ha in size and contains a mix of habitats. The park is adjacent to Grove Park and Peckham Rye to North Dulwich Railsides, a large borough Site of Importance for Nature Conservation in Southwark.



FIG 1, Warwick Gardens ecological records.

The London Records Centre has a number of habitat and species records for the Park, see Fig 1.

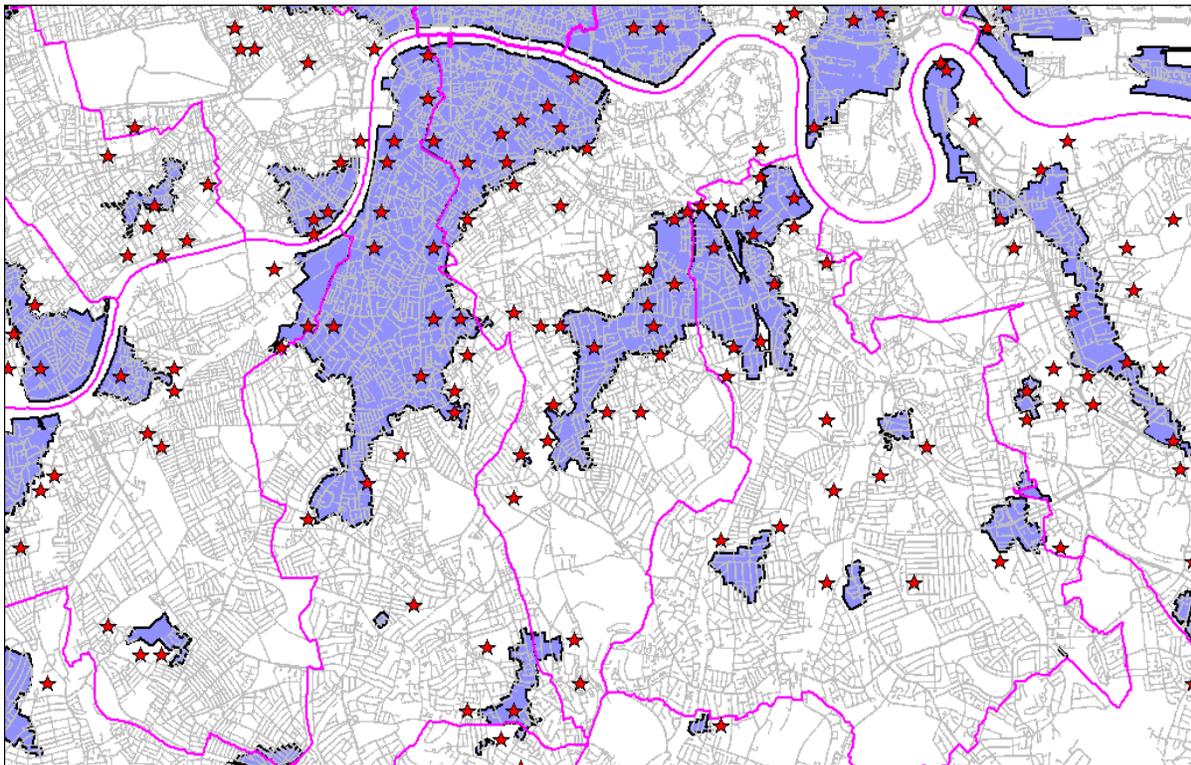


Fig 2. Areas of Natural deficiency in Southwark.

The site is adjacent to an area of natural deficiency, (see Fig 2). This means the sites also meets the criteria of being able to alleviate this natural deficiency.

From the site assessment a number of important habitat types were recorded, including: Amenity grassland, shrubbery, bare open ground, scattered trees, and deadwood. Individually these habitats are important for a number of species. Together they constitute a viable conservation unit that offers access to nature at a local and Borough Level.

The notable species include 1 red data book bird species; the house sparrow. Other birds recorded here include, robin, wren, black bird and crow. The house sparrow is a regional priority species. The internationally rare stag beetle has been recorded nearby. The stag beetle is a Local, national and regional priority BAP species.

Plants recorded on site include: Ash, buddleia, Tree of heaven, Horse Chestnut, London plane, Birch, Russian Vine and bramble. Herbs include: Cow parsley, Nettle, green alkanet, and Silver ragwort.

The sites habitats, the size of the area, it's proximity to the Railsides, are the reason it is proposed as a Site of Local importance for nature conservation. It is also close to several schools so it meets the criteria for providing educational opportunities.



Fig 3, Schools close to Warwick Gardens.

5. Recommendations.

It would be advisable to undertake a Phase 1 habitat survey to provide a comprehensive audit of its biodiversity and to advise the maintenance of the site. This may also highlight funding opportunities for the park.

Peckham and Nunhead AAP: Sites of Importance for Nature Conservation
background paper - appendices

**Appendix 11:
Warwick gardens phase 1 habitat survey**

Warwick Gardens, Southwark

Preliminary Ecological Appraisal

Report for London Borough of Southwark

Author	Sabrina Bremner BSc.		
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Initial	16/10/12	JK	/
Revision	18/02/13	SB	/
Revision			

Contents

Executive Summary	1
1 Introduction	2
2 Methodology	4
3 Results	6
4 Evaluation	8
5 Conclusions and Recommendations	13
References	17
Appendix 1: Habitat Survey Map	19
Appendix 2: Plant Species List	21
Appendix 3: Photographs	24
Appendix 4: Legislation & Planning Policy	26
Appendix 5: Species of Value to Wildlife	39

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Executive Summary

The Ecology Consultancy was commissioned by the London Borough of Southwark to carry out an extended Phase 1 habitat survey and nature conservation evaluation of Warwick Gardens, Peckham. The survey was commissioned in order to support the proposals for the designation of Warwick Gardens as a Site of Importance for Nature Conservation (SINC) as part of the Peckham and Nunhead Area Action Plan (London Borough of Southwark, 2012). The main findings of the surveys are as follows:

- The majority of the site comprised scattered trees -including a young community orchard, large areas of amenity grassland, introduced shrub -including dense climbers and hardstanding. None of the habitats present were rare, long established or notable for other reasons but scattered trees are unlikely to be common locally.
- The site accords with the London BAP (Biodiversity Action Plan) for Parks and Urban Greenspaces and Woodland and the Southwark BAP. These BAPs relate mainly to opportunities for enhancement rather than current ecological value of the habitats present. A number of flagship species associated with the Southwark BAP are likely to be present and others could be encouraged through further habitat enhancements.
- Plant species diversity was low (c32 self established species), none were rare.
- Mature trees, introduced shrubs, and grassland present at the site are likely to provide foraging and breeding habitat for a range of widespread bird species including some Biodiversity Action Plan (BAP) species such as house sparrow. Although numbers present would be limited by available habitat there is the potential for locally significant populations to be present.
- Trees, amenity grassland and introduced shrub are likely to support a range of widespread invertebrate species.
- Trees at the site were of low potential for roosting bats, and levels of light pollution were likely to be low. However, on-site bat foraging habitat and connectivity to off-site habitat were limited. It is therefore considered that the overall likelihood of roosting bats being present at the site is low.
- In summary the site is considered to be of local value for nature conservation due to the presence of scattered trees. This habitat is of limited extent, with a non-native and planted component and is therefore readily re-creatable. Such habitats are likely to be common within the Borough but appear to be locally, i.e. within Peckham, uncommon.

1 Introduction

BACKGROUND

- 1.1 The Ecology Consultancy was commissioned by London Borough of Southwark to produce a report on the baseline ecological conditions of Warwick Gardens, Peckham. The site is located within Peckham in the London Borough of Southwark and is centred on Ordnance Survey Grid Reference TQ 337 762. This report contains the results of an extended Phase 1 habitat survey carried out on the 26th July 2012. It describes the key ecological features of the site, provides an evaluation of the importance of ecological features at the site and makes recommendations for enhancing the ecological value of the site.

SCOPE OF THE REPORT

- 1.2 This report is based on a desk top study, and field survey using standard Phase 1 survey methodology (JNCC, 2010¹), as adapted for use in Greater London by the Greater London Authority (GLA 2002)². This approach is designed to identify broad habitat types at a site, to identify the potential of habitats to support protected species, and to assist in providing an overview of the ecological interest at a site. It is generally the most widely used and professionally recognised method for initial ecological site appraisal.
- 1.3 Ecological receptors at the site were evaluated according to a geographic scale as recommended in Institute of Ecology and Environmental Management's Guidelines for Ecological Impact Assessment in the United Kingdom³ and the GLA's criteria for selection of Sites of Importance for Nature Conservation (SINCs) in London.

SITE CONTEXT AND STATUS

- 1.4 The site was approximately 1.5 hectares (ha) in size and is a public park and community orchard. The survey area comprised young and mature scattered trees, extensive amenity grassland, with small areas of introduced shrub. Hardstanding

¹ JNCC, (2010), Handbook for Phase 1 habitat survey -a technique for environmental audit, ISBN 0 86139 636 7

² Greater London Authority (GLA) (2002) Connecting with London's Nature, The Mayor's Biodiversity Strategy

³ Institute of Ecology and Environmental Management (2006) *Guidelines for Ecological Impact Assessment in the United Kingdom* (version 7 July 2006). <http://www.ieem.org.uk/ecia/index.html>

paths provided access throughout and a small children's play park was situated in the north western limit.

- 1.5 The site is located between Lyndhurst Way which forms the eastern boundary and Azenby Road which provides access from the north. The surrounding area was dominated by residential homes and gardens with railway lines and secondary woodland to the south.
- 1.6 The site is not covered by statutory or non-statutory nature conservation designations. The most notable nearby ecological features are the Nunhead Cemetery Local Nature Reserve (LNR) located approximately 1583 metres (m) south east of the site and Nunhead Railways Cutting Sites of Borough Grade II Importance for Nature Conservation (SINC) which lies immediately to the south of the park.

2 Methodology

EXTENDED PHASE 1 HABITAT SURVEY

- 2.1 A walkover survey of the Warwick Gardens site was carried out by Sabrina Bremner (Ecologist) and Alexandra Davey (Assistant Ecologist) on the 26th July 2012. This followed standard Phase 1 methodology (JNCC 2010) mapping the habitats and noting dominant flora species present. This was supplemented by a desk-top study using on-line mapping services for information on statutory designated sites (www.magic.gov.uk and <http://www.natureonthemap.org.uk/map.aspx>). In addition, The UK (JNCC, 2010), London (London Biodiversity Partnership, 2010: <http://www.lbp.org.uk>) and Southwark Biodiversity Action Plans (BAP) (London Borough of Southwark, 2007) were reviewed for those species and habitats that may, or have the potential to be, present at the site.
- 2.2 A habitat plan of the site is provided in Appendix 1; a full list of plant species identifiable at the site, along with an assessment of their abundance, appears in Appendix 2.
- 2.3 Incidental records of birds and other fauna noted during the course of the habitat survey were also compiled. Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

SITE EVALUATION

- 2.4 The assessment of the site's ecological features and attributes has been undertaken in line with the 2006 Institute of Ecology and Environmental Management (IEEM) guidelines for Ecological Impact Assessment (EclA). These guidelines aim to provide consistency in the approach to evaluating the importance of ecological features and any impact that a new development would have upon them.
- 2.5 The value of ecological features is defined according to the following geographical scale:
- International;
 - UK;
 - National (i.e. England/Northern Ireland/Scotland/Wales);
 - Regional;
 - County (or Metropolitan - e.g. in London);
 - District (or Unitary Authority, City, or Borough);
 - Local or Parish;

- Within zone of influence only (which might be the project site or a larger area); and
- Negligible value.

2.6 The assessment of value for a given feature draws on a range of ecological attributes including:

- The presence of designated sites or BAP habitats or BAP species;
- The presence of rare species or significant populations of species, or populations at the edge of a species' distribution;
- The presence of ancient, rare, fragile or vulnerable habitats and those that are good examples of their type;
- The presence of rare or diverse assemblages of habitats or species; and
- The potential value where there is a possibility of increasing habitat or population size or connectivity or of improving habitat quality.

2.7 In addition, the site has been evaluated using local criteria for designation of non-statutory wildlife sites provided by the Greater London Authority (GLA) in *Connecting with London's nature the Mayor's Biodiversity Strategy* (GLA 2002).

LIMITATIONS

2.8 It should be noted that, whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment. This appraisal does not constitute a full botanical survey, or a Phase 2 survey that would include accurate GIS mapping for invasive or protected plant species.

2.9 The site evaluation provides an overview of the site's ecological value using recognised locally developed criteria and is therefore sufficient to support any decisions for designation in the Area Action Plan. However, it is not based on detailed surveys, and while unlikely, it should be recognised that any future surveys could provide records for rare species that would not have been detected in the current survey.

3 Results

DESK STUDY

- 3.1 The following information regarding the present and historical ecological interest of the site was supplied by the online desk study. The data covers a standard 1km radius search area. It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded. Records include information on the following:

Nature conservation designations

- 3.2 **Statutory Sites of Importance for Nature Conservation:** The site is not subject to statutory nature conservation designations, such as SPA, SSSIs, SACs or LNRs. The desk-based search shows that there are no sites with European or National statutory designations within a 1km radius of the site.
- 3.3 The nearest statutory designated site is Nunhead Cemetery Local Nature Reserve which lies 1583m south east of the site. This site supports a large area of broadleaved woodland, a good population of breeding birds, and 16 species of butterfly, including the nationally scarce white-letter hairstreak *Strymonidia w-album*.
- 3.4 **Non-statutory sites of nature conservation importance:** The nearest non-statutory site within the 1km search area is the Nunhead Railway Embankments SINC. This area lies immediately to the south of the site; and is described as dense woodland and scrub on the railway embankment owned by Network Rail.

EXTENDED PHASE 1 HABITAT SURVEY

- 3.5 Please refer to the habitat map in Appendix 1 for the locations of the features of ecological interest labelled as target notes and described below.

Scattered trees

- 3.6 Young and mature trees were present throughout the site, with species including ash *Fraxinus excelsior*, Norway maple *Acer platanooides*, plum *Prunus* sp., horse chestnut *Aesculus hippocastanum*, poplar *Populus* sp., small-leaved lime *Tilia* sp., hazel *Corylus avellana*, purple filbert *C. maxima* 'Purpurea', and hawthorn *Crataegus monogyna*. Within the northern limit of the site was a young, newly planted community orchard (Target note 3, Appendix 1). Species planted here included a large number of

apple varieties *Malus* spp., plums *Prunus* spp., cobnut *Corylus* 'Kentish Cob', cherries *Prunus* spp., pears *Pyrus* spp., black walnut *Juglans nigra* and white mulberry *Morus alba*.

Amenity grassland

- 3.7 Amenity grassland species included perennial rye grass *Lolium perenne*, cock's-foot *Dactylis glomerata*, dandelion *Taraxicum* sp., creeping buttercup *Ranunculus repens* and ribwort plantain *Plantago lanceolata*. An uncut margin (Target note 2, Appendix 1) formed similar species compositions, and additionally herb and grass species present included hedge bindweed *Calystegia sepium*, bramble *Rubus fruticosus* agg., false oat-grass *Arrhenatherum elatius*, lesser burdock *Arctium minus*,

Introduced shrub

- 3.8 Specimens of introduced shrub were planted in small beds, with dense climbers predominantly along the northern boundary (Target note 1, Appendix 1). Species included ivy *Hedera helix*, crimson glory-vine *Vitis coignetiae*, firethorn *Pyracantha* sp., and lesser periwinkle *Vinca minor*.

4 Evaluation

Geographic evaluation

- 4.1 **Features of International Value:** Features of international value are principally sites covered by international legislation or conventions such as those sites designated under the Habitats Regulations which implements the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive). Sites designated at this level include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) which form the Natura 2000 network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). The regulations deal mainly with protection afforded to habitats, however, they also give protection to certain species of flora and fauna including bats and great crested newts.
- 4.2 The site does not form part of a site of international importance for nature conservation and is distant from any such sites. Based on habitat quality and review of existing data, it is considered likely that the site would support roosting bats such as soprano pipistrelle *Pipistrellus pygmaeus* in low numbers and low foraging activity. The site's value for bats is unlikely to be important in the local context.
- 4.3 **Features of national importance:** Features of national importance include SSSIs which are designated under the Wildlife and Countryside Act 1981 (as amended) as well as species such as common reptiles which are subject to national legislation rather than international legislation. The site does not form part of a site of national importance for nature conservation and is distant from any such sites. The site may support breeding birds, which are protected under the Wildlife and Countryside Act 1981 (as amended).
- 4.4 The site may also support species covered by the UK BAP and which are therefore material considerations in determining planning applications. The UK BAP species present or potentially present at the site includes house sparrow *Passer domesticus* and song thrush *Turdus philomelos*. Due to the limited extent of suitable habitat at the site it is considered that populations present would be of no more than local importance.
- 4.5 **Features of regional (i.e. Greater London) importance:** Sites of Metropolitan Importance for Nature Conservation (i.e. sites considered to be of London-wide

importance for wildlife) are defined as being ‘... *those sites which contain the best examples of London’s habitats, sites which contain particularly rare species, rare assemblages of species or important populations of species...*’

- 4.6 As shown in the site evaluation using local criteria for designation of non-statutory wildlife sites⁴ in Table 1 below, the site lacks any features that would justify designation at the metropolitan level.
- 4.7 The London BAP habitats and species present or potentially present at the site are as follows: parks and urban green spaces, and house sparrow. The London BAP for Parks and Urban Green Spaces relates to the potential for enhancing the wildlife value rather than intrinsic ecological importance of existing habitats. As discussed below, populations of house sparrow are unlikely to exceed local value.
- 4.8 **Features of borough (i.e. Southwark) importance:** Sites of Borough Importance for Nature Conservation are defined as being ‘...*sites which 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...*’ A review of sites of Borough (grade I and II) Sites of Importance for Nature Conservation in the vicinity of the site and the application of local criteria below shows that the site is not likely to be important at the borough level in terms of its habitats or species.
- 4.9 The Southwark BAP is applicable to the site. This relates largely to the potential for enhancing the wildlife value and is intended to encourage opportunities for wildlife through land management. Associated with each BAP habitat are a number of ‘flagship species’ (London Borough of Southwark, 2007) which are characteristic or of specific importance to parks and open spaces in Southwark and for which conservation actions should be developed.
- 4.10 Of these species the site is currently considered suitable for house sparrow, buttercups *Ranunculus* spp., holly blue *Celastrina argiolus* and meadow brown *Maniola jurtina* although this is likely to be at the Local level only, due to the limited extent and quality of existing habitats.

⁴ Connecting with London’s nature the Mayor’s Biodiversity Strategy Greater London Authority 2002

- 4.11 **Features of local (i.e. Peckham) importance:** The GLA defines Sites of Local Importance for Nature Conservation as those that ‘...are, or may be, of particular value to people nearby (such as residents or schools)...’ It also notes that ‘Only those sites that provide a significant contribution to the ecology of an area are identified’. As shown in Table 1 below the scattered tree habitat at the site is of value for nature conservation in this context, as despite the limited extent of this habitat type, trees are locally uncommon. Therefore, the site does contain some (limited) habitats of local importance for nature conservation. The site is freely accessible by local residents and other members of the public, and is therefore of value to the local community as an area of open space and for enjoying common wildlife.
- 4.12 **Features of importance within the zone of influence only (within the site and immediate vicinity):** With reference to Paragraph 4.9 above and Table 1 below the following habitats at the site are of value within the site and immediate vicinity only: amenity grassland and introduced shrub. The habitat survey, data search and limited connectivity to further suitable habitat indicate that the site’s importance for invertebrates is also at this geographic level.
- 4.13 **Features of negligible importance:** Hardstanding was of negligible importance.
- 4.14 **Secondary or supporting value:** Although the site does not support the habitats present within the adjacent Nunhead Railways Cutting SINC it appears to form part of the ecological corridor that this SINC comprises, and would therefore be of some supporting value.

EVALUATION USING LOCAL CRITERIA

- 4.15 Table 1 below provides an evaluation using GLA criteria for designation of non-statutory wildlife sites. The application of local criteria to the site allows a more complete assessment of whether they are of significance for nature conservation at the regional, borough or local scale.

Table 1: Evaluation of nature conservation interest at Warwick Gardens using GLA criteria

GLA Criteria	Remarks
Representation	The site comprises areas of amenity green space with amenity grassland and introduced shrub which are typical of inner urban residential areas in terms of their wildlife value. The site also contains a large number of scattered trees that are typical of their inner urban location and likely to so support a limited and typical assemblage of bats, birds and invertebrates.
Habitat rarity	The site was dominated by amenity grassland – including a small area of uncut grassland, scattered trees, and introduced shrub. While none of these habitats are rare in the London and borough context, based on a review of aerial photography this habitat mosaic is locally uncommon. Woodland occupies 4% and tall grassland only occupies 1% of Southwark (London Borough of Southwark 2007)
Species rarity	No rare plants were recorded and the site lacks habitat likely to support rare bats, invertebrates or birds, although some common but declining bird species covered by UK and London BAPs are likely to be present.
Habitat richness	The site supported a limited range of locally uncommon habitats comprising scattered trees.
Species richness	The site did not support a diverse flora and the site’s location and the nature and extent of habitats present indicate that it will not support diverse assemblages of bats, birds or invertebrates.
Size	All habitats at the site were of very limited extent which reduces the potential for large populations or diverse assemblages of species
Important populations of species	The site may support populations of widespread bird species including certain BAP species, but the limited extent of habitats present will limit population size and significance for nature conservation.
Ancient character	Not applicable. All habitats at the site are of relatively recent origin.
Fragility	All habitats at the site are resilient to most impacts other than extreme disturbance, drought or gross inputs of pollution. Due to the site’s location all associated fauna will be habituated to noise, night-time lighting, disturbance etc. Therefore none of the species and habitats at the site are of conservation significance due to their fragility.
Recreatibility	All habitats at the site are readily recreatable in the medium term including mature trees likely to be c40 years old.
Typical urban character	The site is typical of urban areas; however urban habitats of high value for nature conservation such as canals, species rich wasteland and old parkland are not present.
Cultural or historic character	The site has a community orchard, which is young but contributes to the community value of the site for local residents and other members of public.

Table 1: Evaluation of nature conservation interest at Warwick Gardens using GLA criteria

GLA Criteria	Remarks
Geographic position	The site appears to form part of a local and limited ecological corridor.
Access	Full public access (no public right of way).
Use	Recreational and for nature conservation.
Potential	Enhancements to planting and maintenance could provide opportunities to implement the London BAPs for Parks and Urban Greenspaces, and the Southwark BAP.
Aesthetic appeal	The site is actively used as a public park and is an attractive area for the public.

4.16 The evaluation as a whole shows that habitats at Warwick Gardens do not meet local criteria for designating Sites of Metropolitan, or Borough Importance for Nature Conservation; however the site does meet some criteria for Local Importance for Nature Conservation. The standards for designating sites at each of these geographic levels are summarised in Paragraphs 4.1 to 4.14 above.

5 Conclusions and Recommendations

CONCLUSIONS

- 5.1 The habitats at Warwick Gardens were of ecological importance in the context of the local area only, and hardstanding was of negligible importance.
- 5.2 The habitats at the site corresponded with the following London BAP Habitat types: Parks and Urban Greenspaces, and the Southwark BAP. These BAPs relate largely to opportunities for enhancement rather than current ecological value of the habitats covered.
- 5.3 The site is likely to support certain common and widespread, but declining, species of bird including house sparrow which is a UK, London and Southwark BAP species. A review of existing data, the status of these species in London and Southwark, and assessment of onsite and surrounding habitat suggests that the populations present are of ecological importance in the local (Peckham) context.
- 5.4 Recommendations are made below to enhance the nature conservation value of Warwick Gardens. These aim to enhance the site by improving the quality of existing London and Southwark BAP habitats, with specific aims to enhance for BAP species such as house sparrow and stag beetle, dunnock *Prunella modularis* and starling *Sturnus vulgaris*, and for Southwark's flagship species associated with uncut grassland such as buttercups and certain species of butterfly .

RECOMMENDATIONS

- 5.5 *Breeding birds:* The site contains scattered trees, introduced shrub and grassland of high potential to support nesting and foraging birds. Birds are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence, amongst other things, to kill, injure or take any wild bird or take, damage or destroy the nest of any wild bird while it is in use or being built. Measures necessary to avoid the destruction of nests, eggs and young birds will be required if enhancement measures are undertaken that would affect trees, scrub and hedges.
- 5.6 *Bats:* In order to avoid potential impacts to roosting bats it is recommended that all trees to be removed or pruned are first assessed for their likelihood to support bat roosts. If these surveys cannot rule out the presence of bat roosts, emergence and activity surveys will be required which must be carried between May and October.

- 5.7 **Mature Trees:** Any trees or mature shrubs that are likely to be impacted by proposals should be protected in accordance with BS 5837 2012 *Trees in relation to design, demolition and construction*.

Habitat enhancements

- 5.8 The following enhancement measures are recommended in line with the relevant London and Southwark BAPs:
- 5.9 **Landscape planting enhancements:** Additional wildlife garden planting should be incorporated into site designs to complement existing scattered trees, introduced shrub, and amenity grassland to provide foraging, cover and nesting for birds and invertebrates, including BAP species house sparrow and song thrush. Any planting scheme should utilise a high percentage of native tree, shrub and climbing species, providing nectar, pollen and berries. Climbers could be planted along the edges of fences and/or walls where they will provide a green façade of potential value to foraging birds and insects.
- 5.10 Where horticultural stock that requires hard pruning is used such as willow *Salix* sp., dogwood *Cornus* sp., hazel *Corylus* sp. ash, poplar *Populus* sp. etc., small sections should be cut to the ground (coppiced) on an alternating basis e.g. every 5-10 years, to ensure that a good proportion of flowering/fruiting growth is present in any given season. Works should be carried out in the late winter when disturbance to wildlife and removal of flowering or fruiting material providing valuable forage will be minimal. The arisings could be used to create habitat piles in remaining areas of tree/shrub planting or other undisturbed areas of the site.
- 5.11 Where possible, areas of scattered tree and introduced shrub should be under-planted with shrubs and herbaceous material to create greater structure within the planting and to provide denser cover for wildlife. Enhancements to the existing tree lines should aim to provide a continuous shrub layer of dense foliage under larger canopy trees. Important shrub layer species include hazel, oak and honeysuckle; others of value are ash, blackthorn and hawthorn.
- 5.12 The decline in house sparrows has been linked to reduction in invertebrate prey for chicks and the inclusion of planting likely to provide suitable foraging is recommended. Landscaping should include native deciduous shrubs and trees and a diversity of grasses and herbaceous perennials to set seed and remain in situ

throughout the winter would promote the abundance of a range of foliar invertebrate species.

5.13 House sparrows require dense cover for roosting that could be achieved through additional dense plantings of mixed deciduous and evergreen shrubs. This would also provide nesting habitat for dunnock and the inclusion of berrying species would benefit foraging starling, both London BAP species. The use of bark chippings or other organic mulched would also improve foraging for all three species.

5.14 **Enhancement of amenity grassland for invertebrates:** The inclusion of a good variety of low-growing wildflowers such as birds-foot-trefoil *Lotus corniculatus*, selfheal *Prunella vulgaris*, ladies bedstraw *Galium verum* and hawkbits *Leontodon* spp. to create a daisy lawn in any areas within the site. This will provide foraging for a variety of widespread invertebrates throughout the summer if cutting is not too frequent. This would enhance the quality of such grassland and potentially improve habitat for Southwark flagship plant and invertebrate species (London Borough of Southwark, 2007): buttercups *Ranunculus* spp., holly blue *Celastrina argiolus* and meadow brown *Maniola jurtina*. A list of recommended species is provided in Appendix 4.

5.15 **Artificial bird boxes:** To provide bird nesting opportunities a minimum of five bird nesting boxes could be erected on fences and/or any existing standard trees, as follows:

- Woodcrete bird boxes (such as Schwegler) are recommended as they include a broad range of designs, are long lasting compared to wooden boxes and insulate occupants from extremes of temperature and condensation. Boxes should be placed apart from one another, ideally on different building facades/fences/trees and not be lit by any new lighting proposals for the site.
- Erect open-fronted and hole-fronted bird nesting boxes on suitable trees, buildings and fences. Boxes will require annual maintenance which is normally carried out over the winter months. The following models are most appropriate: 1SP, 1B hole-fronted (26mm and 32mm entrance hole), and 2H open-fronted (120mm opening).
- Ideally boxes should be positioned so they face in an easterly or westerly direction, out of direct sunlight. They should be at least 3m above ground level (preferably 3-6m), and away from bird feeders and a discrete distance away from other nest boxes, ideally on different facades. Colony boxes, such as the Schwegler 1SP sparrow terrace can be placed adjacent to one another.

- They should be attached to trees/building/fences using Schwegler fixings. Boxes should be cleaned annually in the autumn with old nests removed annually between October and January, and boxes repaired or replaced as necessary.

5.16 *Good horticultural practice:* Good horticultural practice should be utilised in any landscaping scheme and should include the following simple methods to minimise off-site ecological impacts:

- The use of peat-free composts and soil conditioners to reduce the loss of important peat bogs.
- Feeding of plants using organic based fertilisers and improving the soil structure by incorporating organic material, preferably composted waste.
- The use of mulches to lock moisture into the soil. 'Water-wise gardening' helps reduce consumption of drinking water which is especially important during drought periods.
- The use of pesticides (herbicides, insecticides, fungicides and slug pellets etc) should be discouraged to prevent cumulative fatal effects to animals via the food chain, particularly invertebrates, birds and/or mammals. Any pesticides used should be non-residual.

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Appendix 1: Habitat Survey Map

KEY

-  Site boundary
-  Scattered trees
-  Amenity grassland
-  Introduced shrub
-  Hardstanding
-  Target note

N
↑

This plan is provided solely for the purpose of supporting the description of the ecological features of the site as contained in the accompanying report



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Appendix 2: Plant Species List

Plant Species List for Warwick Gardens compiled from the Preliminary Ecological Appraisal survey carried out on the 26th July 2012

Scientific nomenclature follows Stace (2010) for vascular plant species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. Please note that this plant species list was generated as part of a Preliminary Ecological Appraisal, does not constitute a full botanical survey and should be read in conjunction with the associated report.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, LD =locally dominant
p=planted, s=seedling or sucker, t=tree, y = young tree,

Latin Name	Common name	Abundance	Qualifiers
<i>Acer platanoides</i>	Norway maple	O	tp
<i>Achillea millefolium</i>	Yarrow	O	
<i>Aesculus hippocastanum</i>	Horse-chestnut	O	tp
<i>Anisantha sterilis</i>	Barren brome	R	
<i>Arctium minus</i>	Lesser burdock	R	
<i>Arrhenatherum elatius</i>	False oat-grass	O	
<i>Ballota nigra</i>	Black horehound	R	
<i>Bellis perennis</i>	Daisy	O	
<i>Buddleia davidii</i>	Butterfly bush	R	s
<i>Calystegia sepium</i>	Hedge bindweed	F	
<i>Carpinus betulus</i>	Hornbeam	O	tp
<i>Castanea sativa</i>	Sweet chestnut	R	p
<i>Catalpa bignonioides</i>	Indian bean tree	R	tp
<i>Corylus "Kentish Cob"</i>	Kentish cobnut	R	p
<i>Corylus avellana</i>	Hazel	R	tp
<i>Corylus maxima "Purpurea"</i>	Purple filbert	R	tp
<i>Crataegus monogyna</i>	Hawthorn	R	tp
<i>Dactylis glomerata</i>	Cock's-foot	F	
<i>Diploxys muralis</i>	Annual wall-rocket	R	
<i>Eucalyptus sp</i>	Gum	R	tp
<i>Festuca rubra</i>	Red fescue	O	
<i>Fraxinus excelsior</i>	Ash	A	tp
<i>Galium aparine</i>	Cleavers	R	
<i>Geranium dissectum</i>	Cut-leaved crane's-bill	O	
<i>Geum urbanum</i>	Wood avens	R	
<i>Gleditsia tricanthos</i>	Honey-locust	R	tp
<i>Hedera helix</i>	Ivy	F	ep

Latin Name	Common name	Abundance	Qualifiers
<i>Heracleum sphondylium</i>	Hogweed	R	
<i>Hieracium spp.</i>	Hawkweeds	R	
<i>Hordeum murinum</i>	Wall barley	O	
<i>Hypochaeris radicata</i>	Cat's-ear	O	
<i>Juglans nigra</i>	Black walnut	R	p
<i>Juniperus sp.</i>	Juniper	R	p
<i>Lolium perenne</i>	Perennial rye-grass	D	
<i>Malus spp.</i>	Apples	O	pt
<i>Malva sp.</i>	Mallow	R	
<i>Mercurialis annua</i>	Annual mercury	R	
<i>Morus alba</i>	White mulberry	R	p
<i>Parthenocissus sp.</i>	Virginia-creeper	R	p
<i>Plantago lanceolata</i>	Ribwort plantain	O	
<i>Poa trivialis</i>	Rough meadow-grass	R	
<i>Populus sp.</i>	Poplar	O	tp
<i>Prunus sp.</i>	Plum	O	tps
<i>Prunus domestica ssp. italica</i>	Greengage	R	p
<i>Prunus sp.</i>	Cherry	R	p
<i>Pyracantha coccinea</i>	Firethorn	O	pe
<i>Pyrus communis</i>	Pear	R	p
<i>Ranunculus repens</i>	Creeping buttercup	F	
<i>Rosa sp.</i>	Rose	R	p
<i>Rubus fruticosus agg.</i>	Bramble	R	e
<i>Rumex obtusifolius</i>	Broad-leaved dock	R	
<i>Senecio jacobaea</i>	Common ragwort	R	
<i>Sorbus aria</i>	Common whitebeam	O	tp
<i>Stellaria media</i>	Common chickweed	R	
<i>Symphoricarpos sp.</i>	Snowberries	R	p
<i>Symphytum sp.</i>	Comfrey	R	
<i>Syringa vulgaris</i>	Lilac	R	tp
<i>Taraxacum sp.</i>	Dandelion	O	
<i>Tilia cordata</i>	Small-leaved lime	R	tp
<i>Trifolium repens</i>	White clover	O	
<i>Urtica dioica</i>	Common nettle	O	
<i>Vinca minor</i>	Lesser periwinkle	R	p
<i>Vitis coignetiae</i>	Crimson glory-vine	LD	pe

Appendix 3: Photographs

Photograph 1:
View of park looking north
west across well
maintained amenity
grassland



Photograph 2:
Margin of uncut amenity
grassland



Photograph 3:
View to northern limit of
site, showing young trees
in foreground



Appendix 4: Legislation & Planning Policy

Important notice: This section contains details of legislation and planning policy applicable in Britain only (i.e. not including the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law.

A NATIONAL LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive⁵ is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991;
- Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment & Rural Communities (NERC) Act 2006;
- Protection of Badgers Act 1992;
- Wild Mammals (Protection) Act 1996.

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected

⁵ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2010 (which includes smooth snake, sand lizard, great crested newt and natterjack toad), all bat species, otter, dormouse and some plant species) are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Directive, the term ‘deliberate’ is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.
- The Conservation of Habitats and Species Regulations 2010 does not define the act of ‘migration’ and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.
- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three ‘tests’: i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Bats

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:
 - a) to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young;
 - (ii) to hibernate or migrate³
 - b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also currently protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level);
- Intentional or reckless obstruction of access to any place of shelter or protection;
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to bats liable to affect development works?

A European Protected Species (EPS) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity of a local population.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy an egg of any wild bird;
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- Intentional or reckless disturbance of dependent young of such a bird.

How is the legislation pertaining to birds liable to affect development works?

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August⁶. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Those species of bird listed on Schedule 1 are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Herpetofauna (Amphibians and Reptiles)

Widespread species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Species such as the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis* are listed in respect to Section 9(1) & (5). For these species, it is prohibited to:

- Intentionally kill or injure these species
- Sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

Common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Lissotriton vulgaris* and palmate newt *L. helveticus* are listed in respect to Section 9(5) only which affords them protection against sale, offering or exposing for sale, possession or transport for the purpose of sale.

⁶ It should be noted that this is the main breeding period. Breeding activity may occur outwith this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

How is the legislation pertaining to herpetofauna liable to affect development works?

A European Protected Species (EPS) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect the breeding sites or resting places of those amphibian and reptile species protected under The Conservation Habitats and Species Regulations 2010. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the Wildlife and Countryside Act 1981 (as amended).

Wild Mammals (Protection) Act 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to:

- Mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

B NATIONAL AND EUROPEAN LEGISLATION AFFORDED TO HABITATS

Statutory Designations: National

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory **Sites of Special Scientific Interest** (SSSIs) under the National Parks and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as **National Nature Reserves** which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European

context (Natura 2000 network) and globally (such as Wetlands of International Importance). See subsequent sections for details of these designations. Improved provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of **Limestone Pavement Orders**, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of **Marine Nature Reserves**, for which byelaws must be made to protect them.

Statutory Designations: International

Special Protection Areas (SPAs), together with **Special Areas of Conservation** (SACs) form the **Natura 2000** network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species Regulations 2010. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SPAs in UK offshore waters (from 12-200nm).

The Government is obliged to identify and designate SACs under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora). These are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are protected under The Conservation of Habitats & Species Regulations 2010. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SACs in UK offshore waters (from 12-200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water

and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

Statutory Designations: Local

Under the National Parks and Access to the Countryside Act 1949 **Local Nature Reserves** (LNRs) may be declared by local authorities after consultation with the relevant countryside agency. LNRs are declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation, and provide opportunities for research and education and enjoyment of nature.

Non-Statutory Designations

Areas considered to be of local conservation interest may be designated by local authorities as a **Wildlife Site**, under a variety of names such as **County Wildlife Sites** (CWS), **Listed Wildlife Sites** (LWS), **Local Nature Conservation Sites** (LNCS), **Sites of Biological Importance** (SBIs), **Sites of Importance for Nature Conservation** (SINCs), or **Sites of Nature Conservation Importance** (SNCIs). The criteria for designation may vary between counties.

Together with the statutory designations, these are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined. The level of protection afforded to these sites through local planning policies and development frameworks may vary between counties.

Regionally Important Geological and Geomorphological Sites (RIGS) are the most important places for geology and geomorphology outside land holding statutory designations such as SSSIs. Locally-developed criteria are used to select these sites, according to their value for education, scientific study, historical significance or aesthetic qualities. As with local Wildlife Sites, RIGS are a material consideration when planning applications are being determined.

C NATIONAL PLANNING POLICY

National Planning Policy Framework

The National Planning Policy Framework replaces PPS9 (from April 2012) and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species – presumably those listed as UK Biodiversity Action Plan priority species – is also listed as a requirement of planning policy. In determining planning application, planning authorities have a duty 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.

The Natural Environment and Rural Communities Act 2006 and The Biodiversity Duty

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

D REGIONAL AND LOCAL PLANNING POLICY

The London Plan, Spatial Development Strategy for Greater London, July 2011 contains the following policy relevant to the site.

Policy 7.19

Policy 7.19 provides specific commentary on the need for a positive contribution to the protection, enhancement, creation and management of biodiversity within development proposals with a particular emphasis on achieving biodiversity action plan targets. It states that the Mayor will work with all relevant partners to ensure a proactive approach to the

protection, enhancement, creation, promotion and management of biodiversity in support of the Mayor's Biodiversity Strategy. This means planning for nature from the beginning of the development process and taking opportunities for positive gains for nature through the layout, design and materials of development proposals and appropriate biodiversity action plans.... Development proposals should wherever possible, make a positive contribution to the protection, enhancement, creation and management of biodiversity, prioritise assisting in achieving targets in biodiversity action plans (BAPs) and/or improve access to nature in areas deficient in accessible wildlife sites. Development proposals should also not adversely affect the integrity of European sites, and be resisted where they have significant adverse impact on European or nationally designated sites or on the population or conservation status of a protected species, or a priority species or habitat identified in a UK, London or appropriate regional BAP or borough BAP.

Southwark's Unitary Development Plan (2007) contains the following saved policies from Section 3: Environmental Principles that are relevant to the site:

Policy 3.1 Environmental effects

"Planning permission for the establishment of uses that would cause material adverse effects on the environment will not be granted, and proposals for activities that will have a material adverse impact on the environment and quality of life will be refused".

Policy 3.13 Urban design

"Principles of good urban design must be taken into account in all developments.....In designing new developments, consideration must be given to:

vi) Landscaping – Where appropriate, developments should include landscape design that enhances the area and biodiversity, for example through the use of green roofs"

Policy 3.26 Borough Open Land (BOL)

Within Borough Open Land planning permission will not be granted for development unless:

- i. It is ancillary to the use of the open space; and
- ii. It is small in scale; and
- iii. It does not detract from the site's open nature and character; and
- iv. It is required to enhance activities associated with the particular open space; and
- v. It positively contributes to the setting and quality of the open space.

Policy 3.28 Biodiversity

"The LPA will take biodiversity into account in its determination of all planning applications and will encourage the inclusion in developments of features which enhance biodiversity, requiring an ecological assessment where relevant.

Developments will not be permitted which would damage the nature conservation value of sites of importance for nature conservation (SINCs) and local nature reserves (LNRs) and/or damage habitats, populations of protected species or priority habitats/species identified in the United Kingdom, London or the Southwark biodiversity action plan. Where, exceptionally, such developments are permitted, the Council will seek mitigation and/or compensation for the damage to biodiversity.

Where new sites of importance for nature conservation and local nature reserves are identified, these sites will be afforded protection under this policy and policy 3.27, Other Open Spaces”.

Reasons

The council has an obligation to protect biological diversity under national and international legislation, including the Convention on Biological Diversity (1992), The Habitats Directive (1992), National Parks and Access to the Countryside Act (1949) and the Wildlife and Countryside Act (1981). The council has a responsibility to protect and enhance biodiversity throughout Southwark and particularly to protect areas of nature conservation. Due to the intense pressure on land for development, it is important that areas of nature conservation value or ecological importance are identified and the flora and fauna associated with these areas are protected and enhanced as outlined in the council’s biodiversity action plan.

Access to wildlife also enables people to experience wildlife in an otherwise intensely urban environment, promoting well-being and providing a number of educational benefits.

Sites of Importance for Nature Conservation and Local Nature Reserves are listed in Appendix 14.

Southwark Core Strategy Strategic Policy 11 – Open Spaces and Wildlife aims to...
“improve, protect and maintain a network of open spaces and green corridors that will make places attractive and provide sport, leisure and food growing opportunities for a growing population. We will protect and improve habitats for a variety of wildlife.

We will do this by

- *Continuing to protect important open spaces from inappropriate development. These will include parks, allotments, sports grounds, green chains, sites of importance for nature conservation (SINCS) and cemeteries. Large spaces of importance to all of London will be protected (Metropolitan Open Land) as well as smaller spaces of more borough-wide and local importance (Borough Open Land and Other Open Spaces)*
- *Protecting woodland and trees and improving the overall greenness of places, including through promoting gardens and local food growing.*
- *Promoting and improving access to and links between open spaces.*

- *Identifying and protecting open spaces that provide quiet areas and relative tranquillity.*
- *Requiring new development to help meet the needs of a growing population by providing space for children's play, gardens and other green areas and helping to improve the quality of and access to open spaces and trees, particularly in areas deficient in open space.*
- *Requiring new development to avoid harming protected and priority plants and animals and help improve and create habitat."*

E UK BAP

In 1994 the UK Government published its response to the Convention on Biological Diversity that it signed along with over 150 other nations at the Rio Earth Summit in 1992. Biodiversity – the UK Action Plan (HM Government 1994) and subsequent publications (e.g. UK Steering Group 1995) set out a programme for the national Biodiversity Action Plan (BAP), including the development of targets for biodiversity, and the techniques and actions necessary to achieve them. The national BAP includes lists of species that are of conservation concern, either because they are rare in an international or national context or have undergone serious declines in their populations in recent years. Species Action Plans have been prepared or are in preparation for a many of these species, whilst Habitat Action Plans are being produced for important or characteristic habitats identified in the plan.

F REGIONAL AND LOCAL BAPS

The site is covered by the regional BAP for London and the local BAP for the London Borough of Southwark. The habitats and species covered by the BAPs are reproduced below:

- Parks & urban greenspaces
- House sparrow.
- Grassland

Appendix 5: Species of Value to Wildlife

ORNAMENTAL AND NATIVE SPECIES OF WILDLIFE VALUE

The list below gives some easily sourced plants which are of proven value to wildlife. It includes a number of ornamental species which are not native and can be used in combination with native species in more formal situations. In informal landscapes the emphasis should be on the use of native species.

Where ornamental trees and shrub planting are proposed it is recommended that species producing abundant nectar rich flowers or berries palatable to birds are used. Such species include (non-invasive) varieties of Cotoneaster⁷ and firethorn *Pyracantha*. Additionally climbers should be planted on bare walls and fences where they will attract foraging birds and invertebrates.

Different horticultural varieties of the following species are commonly available, but where possible standard stock is advised, especially for native species. Single flowering plants should be chosen over double flowering plants. With exception of * (biennials) and ** (annuals) all species are perennial. **E** = Exotic, **N** = Native. Note: the list includes species that may be harmful if handled or ingested. Numerous sources of further information are available. See for instance *Poisonous Plants and Fungi: An Illustrated Guide*, M.R. Cooper, A.W. Johnson and E. Dauncey, TSO: 2nd edition, 2003 ISBN 100117028614

Tree

Cherry *Prunus spp.*, *P. avium* (wild cherry) **N**

Ash *Fraxinus excelsior* **N**

Crab apple *Malus sylvestris* **N**

Pear *Pyrus spp.* *Pyrus calleryana*

Small-leaved lime *Tilia cordata* (or similar hybrid) **N**

Silver birch *Betula pendula* **N**

Yew *Taxus baccata* **N**

Foxglove tree *Pawlonia tomentosa* **E**

Lacebarks *Hoheria spp.* *H. glabrata*, *H. lyallii* **E**

Tulip tree *Liriodendron tulipifera* **E**

nb: many of the shrub species below will form small trees when mature

⁷ Please refer to <http://www.defra.gov.uk/wildlife-pets/wildlife/management/non-native/documents/schedule9-list.pdf> for invasive species that should be avoided in landscaping plans.

Large Shrubs

Shrubby veronica *Hebe spp.* E
Hawthorn *Crataegus monogyna* N
Blackthorn *Prunus spinosa* N
Rose *Rosa canina* (dog rose) *R. arvensis* (field rose) *R. pimpinellifolia* (burnet rose) N
Elder *Sambucus nigra* N
California lilac *Ceanothus arborea / spp.* E
Privet *Ligustrum vulgare* N/E
Common holly *Ilex aquifolium* N
Barberry *Berberis darwinii*, *B. thunbergii*, *B. x stenophylla* E
Daisy bush *Olearia x hastii*, *O. macrodonta* and *O. traversii* E
Firethorn *Pyracantha coccinea* E
Hazel *Corylus avellana* N
Guelder rose *Viburnum opulus* N
Wayfaring tree *Viburnum lantana* N
Buddleia *Buddleja davidii*, *B. alternifolia*, *B. globosa* E
Dogwood *Cornus sanguinea* N
Broom *Cytisus scoparius* N
Mexican orange bush *Choisya ternata* E
Laurustinus *Viburnum tinus* E
Portuguese laurel *Prunus lusitanica* E
Flowering currant *Ribes sanguineum* E
Cherry laurel *Prunus laurocerasus* E
Escallonia *Escallonia macrantha* E
Hardy fuchsia *Fuchsia magellanica* E
Buckthorn *Rhamnus cathartica* N
Spindle *Euonymus europaeus* N
Tutsan *Hypericum androsaemum* N
Yew *Taxus baccata* N

Herbaceous perennials and small shrubs

Tree mallow *Lavatera spp. L. olblio*, *L. thuringiaca* E
Ice plant *Sedum spectabile* E
Lavender *Lavandula angustifolia*, *L. x intermedia* E
Globe thistle *Echinopsis ritro* E
Foxglove *Digitalis purpurea** or *D. lutea*, *D. x mertonensis* N/E

Michaelmas daisy *Aster novi-belgii* **E**
Teasel *Dipsacus fullonum** **N**
Sunflowers *Helianthus annuus*** **E**
Red valerian *Centranthus rubra* **E**
Hemp agrimony *Eupatoria cannabinum* **N**
Common knapweed *Centaurea nigra* **N**
Black-eyed susan *Rudbeckia hirta*** or *R. fulgida* **E**
Rosemary *Rosmarinus officinalis* **E**
Rock rose *Cistus spp.* **E**

Climbers

Jasmine *Jasminum officinale* **E**
Ivy *Hedera helix* **N**
Climbing hydrangea *Hydrangea petiolaris* **E**
Honeysuckle *Lonicera periclymenum* or *L. japonica*, *L. fragrantissima*, *L. standishii* **N/E**
Spindle *Euonymus spp. E. fortunei* **N/E**
Clematis spp. *Clematis vitalba* or *C. armandii*, *C. alpina*, *C. montana*, *C. tangutica* **N/E**
Firethorn *Pyracantha atalantioides* **E**
Nasturtium *Tropaeolum majus*** **E**



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