

17. Ecology and Nature Conservation

17.1 Introduction

Background

- 17.1.1 This chapter sets out the potential likely significant environmental effects of the Proposed Development, both during construction and operation phases, on recognised ecological features and the significance of these effects, along with strategies proposed to mitigate damage and compensate for loss where appropriate.

Site Characteristics

- 17.1.2 The Site is approximately 10.5 hectares in size. It is located within the London Borough of Lewisham and includes Millwall FC Stadium together with existing commercial / industrial buildings and hardstanding. The Site is set within an urbanised area comprising existing residential and commercial / industrial development (see Figure 17.1). It is roughly triangular in shape with the north-western and north-eastern boundaries adjacent to railway lines and their associated vegetated embankments. Surrey Canal Road dissects the Site in the south with a further parcel of commercial / industrial land present within the red line boundary south of this road.
- 17.1.3 The Site currently comprises buildings and hard standing, amenity planting, amenity grassland and trees.

17.2 Policy context

National Planning Policy

Planning Policy Statement 9 (PPS9, 2005)

- 17.2.1 Guidance on national policy for biodiversity and geological conservation is provided by PPS9¹, published in August 2005. PPS9 confirms the Government's commitment to the protection of biodiversity and geological conservation through the planning system.
- 17.2.2 PPS9 requires local authorities to fully consider the effect of planning decisions on biodiversity and geological conservation, and ensure that appropriate weight is attached to statutory nature conservation designations, protected species and biodiversity and geological interests within the wider environment.

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- 17.2.3 It also considers the potential biodiversity and geological conservation gains which can be secured within developments, including the use of planning obligations.
- 17.2.4 National policy therefore implicitly recognises the importance of biodiversity and that with sensitive planning and design, development and conservation of the natural heritage can co-exist and benefits can, in certain circumstances, be obtained.

Regional Policy

The London Plan (Consolidated with Alterations since 2004) (published February 2008)

- 17.2.5 The London Plan² provides the policy context for new development across the capital. The revised document published in 2008 incorporates the alterations made to the document since it was originally published in 2004.
- 17.2.6 The Site is included, in part, within the London Plan as a Strategic Industrial Location (SIL).
- 17.2.7 The 2008 version of the London Plan contains six policies that are in whole or part concerned with nature conservation and the habitats within this Site.
- 17.2.8 Of these, Policy 3D.14: Biodiversity, Habitat and Species is of greatest relevance. This policy requires that new developments have regard to nature conservation and biodiversity, and advises that developments that would have a significant adverse impact on protected species or Biodiversity Action Plan species should be resisted.
- 17.2.9 Policy 3D.8: Realising the Value of Open Space and Green Infrastructure requires that the benefits of open space, including biodiversity, be protected. Policy 3D.15: Trees and Woodland is concerned with the protection and enhancement of trees and woodland in support of the London Tree and Woodland Framework. Policy 4A.11: Sustainable Design and Construction requires that future development conserve and enhance the natural environment, especially biodiversity. Policy 4A.11: Living Roofs and Walls encourages the establishment of these features as part of new developments where feasible, in order to enhance biodiversity among other benefits. Policy 4B.1: Design Principles for a Compact City again requires developers to respect the natural environment and biodiversity.
- 17.2.10 The Mayor's Biodiversity Strategy³, published in July 2002, provides detailed contextual information on London's nature conservation interest, and identifies priorities for action.

The London Plan: Consultation Draft Replacement Plan (published October 2009)

- 17.2.11 The recent publication of the consultation draft for the replacement London Plan⁴ is of relevance to the Proposed Development, since while the 2008 version of the London Plan remains in force for the time being, the consultation draft points to the direction of future policy. The five policies concerned in whole or part with nature conservation are essentially similar to the policies in the existing London Plan.

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- 17.2.12 Policy 2.18: Green Infrastructure, is concerned with the promotion of access to London's open spaces, and to secure benefits including biodiversity. Policy 5.3: Sustainable Design and Construction, requires that new developments promote and protect biodiversity and green infrastructure. Policy 5.11: Green Roofs and Development Site Environs, specifies that major development proposals should be designed to include roof, wall and site planting, especially green roofs and green walls where feasible, in order to realise the benefits of these measures, which include gains for biodiversity. Policy 7.19: Biodiversity and Access to Nature is concerned with the protection, promotion and management of biodiversity in support of the Mayor's Biodiversity Strategy. Policy 7.21 Trees and Woodlands requires the protection of these features as part of development proposals.
- 17.2.13 It is expected that the new London Plan will be published and adopted in 2011, following the current Examination In Public (EIP).

Local planning policy

- 17.2.14 The Unitary Development Plan 2004 (UDP)⁵ is the current development plan for the London Borough of Lewisham. However, this is being replaced by The Local Development Framework (LDF) which is being prepared under planning legislation and will eventually replace the Unitary Development Plan as the statutory development plan.

Lewisham's Unitary Development Plan 2004

- 17.2.15 A large proportion of the Site, excluding the Millwall FC Stadium, is allocated within the UDP as a 'Defined Employment Area'.
- 17.2.16 Contained within the London Borough of Lewisham's UDP are six policies relevant to the proposed development in ecological terms (OS 1, OS 2, OS 3, OS 12, OS 13 and OS 17).
- 17.2.17 Policy OS 1 of the Lewisham Unitary Development Plan is concerned with the retention of Metropolitan Open Land (MOL) within the London Borough of Lewisham. It states that:
- 'The open character of Metropolitan Open Land (MOL) in Lewisham will be preserved. Planning permission will be granted only for appropriate development or change of use where this preserves the open nature of the land. This includes areas of MOL land with nature conservation value.'*
- 17.2.18 The closest MOL is located approximately 2km southeast of the Site.
- 17.2.19 Policy OS 2 is concerned with land close to MOL and states:
- 'The Council will consider any development proposal on land fringing, abutting or otherwise having a visual relationship with MOL on the basis of their detrimental impact on visual amenity, character or use of the MOL'*

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17.2.20 Policy OS 3 is concerned with Green Chains and states:

'The main open spaces that form the South East London Green Chain are protected as MOL. These spaces will be promoted and managed in order to enhance their role as a local and regional outdoor recreational resource.'

17.2.21 Policy OS 12 is concerned with the preservation of nature conservation on designated sites, it states:

'Development on or within the Sites of Nature Conservation Importance, identified as sites of Metropolitan, Borough or Local Nature Conservation Importance by the London Ecology Unit, will not be permitted if it is likely to destroy, damage or adversely affect the protected environment'.

17.2.22 Policy OS 13 is concerned with nature conservation in general, it states:

'The Council will have regard to the nature conservation value of all sites in the Borough that are proposed to be developed, and seek to protect and enhance these, either through the imposition of planning conditions or through ensuring alternative equivalent new habitat provision nearby. Development proposals for these sites should be accompanied by an environmental appraisal, including methods of mitigation and proposals for compensation'.

17.2.23 Policy OS 17 is concerned with protected species of plant and animal, it states:

'Planning permission will not be granted for development or land use changes which would have an adverse impact upon protected plant and animal species'.

London Borough of Lewisham LDF Core Strategy Submission document (October 2010)

17.2.24 As part of the LDF process the London Borough of Lewisham has produced its Core Strategy Submission document⁶ and this was submitted to the Secretary of State in October 2010. The Core Strategy is to be the subject of an EIP during early 2011.

17.2.25 The Core Strategy Submission document highlights the Site as being allocated as a Mixed Use Employment Location (MEL). Thus, the precedent for mixed use development at the Site has been set through planning policy.

17.2.26 Objective 7 of the Core Strategy Submission document, titled "Open spaces and environmental assets" is concerned with the protection and enhancement of ecological features of value within the London Borough of Lewisham. The Objective states:

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“The important environmental, ecological and biodiversity features of Lewisham will be protected and capitalised to promote health and well-being by:

- a. protecting all public open space including Metropolitan Open Land;*
- b. protecting Sites of Nature Conservation Importance and supporting and promoting local biodiversity;*
- c. requiring green roofs and walls where appropriate;*
- d. implementing the Street Tree Programme;*
- e. improving the quality of, and safeguarding access to, all public open space;*
- f. providing accessible and varied opportunities for health, leisure and recreational activities including the South East London Green Chain Walk, the Green Grid, the Waterlink Way and the Thames path.”*

17.2.27 Policy 12 of the Core Strategy Submission document is of specific relevance to ecology and nature conservation. This Policy sets out London Borough of Lewisham’s commitments towards maintaining and improving the boroughs green infrastructure and biodiversity assets. The policy states:

“In recognising the strategic importance of the natural environment and to help mitigate against climate change the Council will:

- a. conserve nature*
- b. green the public realm*
- c. provide opportunities for sport, recreation, leisure and well-being.*

This will be achieved by:

- a) protecting Metropolitan Open Land, public open space, urban green space and green corridors from inappropriate built development to ensure there is no adverse effect on their use, management, amenity or enjoyment in accordance with the principles of PPG2 and the London Plan;*
- b) maintaining and improving the publicly accessible open space network, such as the Waterlink Way, the Thames Path, the South East London Green Chain, the East London Green Grid, parks and gardens, playing fields, nature reserves, allotments, community gardens, amenity green space, cemeteries and churchyards as well as smaller open spaces that have townscape quality;*

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- c) *designating additional Metropolitan Open Land in accordance with the London Plan definitions, in particular Sydenham Wells Park, Horniman Gardens and Telegraph Hill Park due to the role they perform in the South East London Green Chain;*
- d) *improving the quality of accessibility to existing open space by public transport, cycle and foot;*
- e) *preserving or enhancing the local biodiversity and geological conservation interests in accordance with national and regional policy, in the form of PPS9 and the London Plan by designating Sites of Nature Conservation Importance;*
- f) *protecting trees and preventing the loss of trees of amenity value;*
- g) *seeking new on-site provision as part of new development and/or improved accessibility to existing areas of public open space in the identified areas of open space deficiency within the wards of Brockley, Catford South, Lee Green, Perry Vale and Telegraph Hill;*
- h) *seeking exemplary design for new, and improvements to existing, public open space to ensure publicly accessible and usable open space is considered in the context of the local character and its distinctive historical qualities working with the Environment Agency (EA) where appropriate;*
- i) *maximising opportunities for sport and recreation through well-designed and managed spaces, which takes into account the Mayor's Children and Young People's play space requirements in a safe environment;*
- j) *promoting living roofs and walls in accordance with London Plan policy and Core Strategy Policy 8;*
- k) *promoting and supporting local food growing and urban agriculture.*

Planning obligations will be sought to ensure the implementation of this policy where Appropriate.”

17.2.28 Strategic Site Allocation 3 of the Core Strategy Submission document is targeted specifically at the Site. Of particular relevance to ecology and nature conservation are points 1 (h) and 2(e iv) which relate to the enhancement of Bridgehouse Meadows Site of Importance for Nature Conservation (SINC). These are set out below:

Priority 1 (h)

“enhances Bridge House Meadows, and provides appropriate amenity open space within the development including children's play space to provide health and recreational opportunities for new residents”.

Principal 2(e iv)

“improve links to Bridge House Meadows open space and to the south of the site.”

17.2.29 Spatial Policy 1 of the Core Strategy Submission document outlines the hierarchy and various spatial policies which will be used to identify the type and quantity of development deemed acceptable across the London Borough of Lewisham. Spatial Policy 1 also refers specifically to the protection and enhancement of open space areas (including Metropolitan Open Land) and Sites of Nature Conservation Importance. The Policy states:

- “1. All new development will need to contribute positively to the delivery of the vision for Lewisham (see Section 4) and the strategic objectives (see Section 5).*
- 2. The Lewisham Spatial Strategy will be achieved by applying the following hierarchy and corresponding Spatial Policies, which identify the type and quantity of development acceptable across the borough:*
 - a. Regeneration and Growth Areas covering key localities within Lewisham – Catford - Deptford – New Cross/New Cross Gate (Spatial Policy 2, Section 6.2.1);*
 - b. District Hubs covering the District Town Centres of Blackheath, Forest Hill, Lee Green and Sydenham, and their immediate surrounding residential neighbourhoods (Spatial Policy 3, Section 6.2.2);*
 - c. Local Hubs covering Brockley Cross, Hither Green, and Bell Green (Spatial Policy 4, Section 6.2.3);*
 - d. Areas of Stability and Managed Change for the remaining areas of the borough (largely residential) including a Local Regeneration Area focusing on parts of the Whitefoot, Downham and Bellingham wards, including the Downham District Town Centre and the Southend Village, Bromley Road (Spatial Policy 5, Section 6.2.4).*
- 3. Provision will be made for an additional 18,165 net new dwellings and higher density development will need to be compatible with public transport accessibility, except where development opportunities can ensure an increase in accessibility and a restrained and managed approach to car parking provision is followed, in conjunction with improvements to connectivity through walking and cycling.*
- 4. Development will be resisted on open space, including Metropolitan Open Land and Sites of Nature Conservation Importance, and a net gain of open space across the borough will be sought, particularly through on-site provision.*

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5. *All new development will need to ensure the principles of good design are addressed and incorporate high standards of sustainable design and construction, including maximizing energy efficiency and the provision of on-site renewables.*
6. *Development may be required to carry out certain works, or to provide or contribute towards the provision of measures to mitigate any negative impacts of the development, including appropriate physical, social and green infrastructure, in accordance with a planning obligation.”*

Summary of key policy messages

- The Site is identified within the London Plan, the UDP and the emerging Core Strategy of the LDF;
- Planning Permission will not be granted where proposals will have an adverse effect on protected species or habitats;
- Planning Permission will not be granted where proposals will have an adverse effect on protected sites of nature conservation value, such as SINCs;
- Protection and enhancement measures will need to be secured in respect of adverse effects on biodiversity; and
- The green infrastructure network, including open land of biodiversity value is to be protected and enhanced.

Other Guidance

Biodiversity Action Plans (BAPs)

17.2.30 The UK BAP⁷ lists over 40 habitats and around 400 species that are of the highest priority for conservation in the UK. The London BAP⁸ has a number of species it lists as priorities. In addition, the London Borough of Lewisham BAP⁹ has prepared Action Plans for the following habitats and species:

- Bats;
- Black Redstart;
- House Sparrow;
- Song Thrush;
- Stag Beetles;
- Standing open water;
- Parks, open spaces and cemeteries;
- Railway linesides and
- Rivers.

17.3 Methodology and Assessment Criteria

Definition of significance

17.3.1 The assessment of likely significant environmental effects has been made in relation to the Proposed Development as described within the ES and the parameters and principals as set out within the Development Specification document and the Parameter Plans.

17.3.2 Chapter 2 of the ES defines relevant terms in relation to the consideration of potential significant environmental effects. A significant effect is one where the predicted net impact of the activity / process would exceed the normal variation in baseline conditions. In defining the significance of a potential effect, consideration should be given to the sensitivity of the receptor, the magnitude of the effect, the frequency and extent of the effect and its duration.

17.3.3 The evaluation and impact assessment method employed in relation to undertaking this assessment of likely significant environmental effects on ecology and nature conservation, is based on the guidelines produced by the Institute of Ecology and Environmental Management¹⁰, which avoids the provision of definitions as to how to assign habitats and species different levels of value and relies on an approach that involves professional judgement and the use of available guidance and information.

17.3.4 The value of each resource should be determined within a defined geographical context:

- International;
- National;
- Regional;
- County (or Metropolitan – e.g. in London);
- District (or Unitary, City or Borough);
- Local or Parish; or
- Site.

17.3.5 A number of other key considerations include:

- Designated Sites and Features (e.g. Special Protection Areas, Sites of Special Scientific Interest, ancient woodland, etc.);
- Biodiversity Value (Use of Biodiversity Action Plans, development plans and other published documents);
- Potential Value;
- Secondary or Supporting Value;
- Social or Economic Value; and

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- Legal Issues.

17.3.6 For example, the Lewisham Biodiversity Action Plan has been used to assist in valuing features and developing mitigation strategies, where necessary. Consideration has also been given to the policies contained within the London Borough of Lewisham's Unitary Development Plan 2004 and the emerging LDF.

17.3.7 Having identified the ecologically important features likely to be affected by the development, the current guidance promotes a transparent approach in which an effect is determined to be significant or not on the basis of a discussion of the factors that categorise it. This includes characterising the nature of the likely effects on each important feature in terms of ecological structure and function, by considering the following parameters:

- Positive or negative;
- Extent;
- Magnitude;
- Duration;
- Reversibility; and
- Timing and frequency.

17.3.8 Where it was concluded that there would be an effect (beneficial or adverse and including cumulative impacts) on a defined site or ecosystem(s) and/or the conservation status of habitats or species within a given geographical area, it is described as significant in the following terms: major, moderate, minor, negligible and none.

Study Area

17.3.9 The potential ecological effects of the Proposed Development are primarily focused on the Site itself. Designated sites and habitats within 2.75km of the Site have also been considered as part of this assessment.

17.3.10 In addition, consideration has also been given to the potential for the following significant effects which may spread beyond the Site:

- Direct loss of habitats within the Site at the construction phase;
- Disturbance to populations within hearing range during the construction phase due to noise or vibration;
- Disruption to habitats / populations within receiving range of dust, other air quality considerations during the construction and operation phase;
- Disruption to the normal diurnal patterns for species during

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construction and operation due to lighting;

- Disturbance to habitats / populations within walking distance during the operation phase; and
- Pollution to watercourses during the construction and operation phases.

17.3.11 The methodology utilised for the survey work can be split into three areas, namely desk survey, habitat survey and faunal survey. These are set out below.

Desk Survey

17.3.12 In order to compile background information on the Site and its immediate surroundings, Greenspace Information for Greater London (GIGL) was contacted.

17.3.13 Information supplied by GIGL is subject to copyright law and as such cannot be reproduced for inclusion within appendices to this Chapter. All information supplied has however been assessed and where relevant is referred to within this chapter.

17.3.14 Further information on designated sites from a wider search area was also obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC)¹¹ database and Natural England's Nature on the Map¹², see Technical Appendix 17. 1.

Habitat Survey Methodology

17.3.15 The Site has been the subject of ecological surveys carried out during 2009 and 2010. Surveys were undertaken in order to ascertain the general ecological value of the land contained within the boundaries of the Site and to identify the main habitats and associated plant species, with notes on fauna utilising the Site.

Extended Phase 1 Survey

17.3.16 Ecology Solutions undertook a walkover of the site during 2009, however, due to access constraints; it was not possible to walk the whole of the Site during this visit. A full habitat assessment of the whole site was carried out during October 2010 when full site access was available. Surveys were based around the Phase 1 Survey methodology¹³ whereby the habitat types present are identified and mapped together with an assessment of the species composition of each habitat (see Figure 17.2). This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential, which may require further more detailed survey work.

17.3.17 All species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different

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seasons. While surveys were undertaken outside of the optimum period for botanical survey work, given the nature of the habitats present an accurate evaluation of the Site's ecological value can be made.

Fauna

17.3.18 General faunal activity, such as birds or mammals observed visually or by call during the course of the surveys, was recorded. Specific attention was paid to any potential use of the study area by protected species, Biodiversity Action Plan (BAP) species, or other notable or rare species.

17.3.19 In addition to casual observations, the following species-specific surveys were undertaken:

- Badgers *Meles meles* and
- Bats

17.3.20 Surveys were undertaken by experienced ecologists following established best practice and guidance issued by Natural England. Details of the methodologies employed are given in Technical Appendix 17.2.

Consultations

17.3.21 London Borough of Lewisham provided an ES scoping response dated 14th July 2010 (ref: 10/74106). Detailed comments on individual topic areas, including Ecology are contained at Appendix 1 of London Borough of Lewisham's response, a copy of which is included at Technical Appendix 17.3 (and at Technical Appendix 1.2). Broadly, the Council's response outlines the need to undertake appropriate ecological surveys of the Site and its surrounds and to place appropriate weight on the Site's proximity to locally designated sites of ecological importance. The Council stated that in undertaking the desk study exercise a study area of 1 – 2 km buffer from the Site boundary should be used for species / habitats, with a 5km buffer for protected sites. It is also stated that dependant on the results from the desk study and Phase 1 survey, additional surveys to a distance of up to 500m from the Site boundary may need to be undertaken and that where the need for further species / habitat specific surveys is identified these surveys should be agreed with the Council. The Council's response also sets out that depending on the amount of biodiversity enhancement which is to be delivered, an Ecological Mitigation and Management Plan could be included with the planning application. The Council also confirms that, subject to seeing the detail of any mitigation / enhancement measures, Natural England are satisfied with the proposed scope of the EIA.

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17.3.22 Ecology Solutions produced a briefing note dated November 2010 which outlined to London Borough of Lewisham the results of specific habitat and species survey work undertaken setting out proposed mitigation and enhancement measures and a justification as to why further detailed survey work was not required. This note also set out the proposed approach in relation to undertaking the desk study exercise, which uses smaller study areas than those requested by London Borough of Lewisham. A copy of this note is included at Appendix 17.4. London Borough of Lewisham responded favourably to the information supplied by Ecology Solutions by way of an email, a copy of which is included at Appendix 17.5. The principal items of note from the Council's email response are that; background data should be sought from existing survey information in relation to the railway embankments and that mitigation is likely to be focussed upon effects on reptiles and bats, where consideration should be given to the need for reptile fencing during the construction phase and lighting impacts on bats during the construction and operational phases.

Uncertainty / Assumptions

17.3.23 Given the level of detail contained within the Development Specification and the Parameter Plans the only assumptions that have been made are in relation to the potential for the landscape scheme to be able to accommodate native planting and those species of benefit to wildlife in general.

17.4 Aspects of the Proposed Development of relevance to the assessment

Worst case scenario

17.4.1 In undertaking this assessment due regard has been had to the information as set out within the Parameter Plans and Development Specification. The assessment is based upon the maximum amount of permissible built form and the minimum extent of landscape planting / open space provision, including green / brown roofs.

17.5 Baseline situation

Introduction

17.5.1 The objectives of establishing the ecological baseline are twofold:

- i. To describe aspects of the natural environment and to identify important and protected habitats and species that could be adversely affected by the Proposed Development; and

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- ii. To characterise features that could be positively enhanced, created, restored or managed, by establishing the occurrence, distribution and extent of ecological features on Site and in the surrounding area; and/or those species that could be positively managed to enhance their conservation status, distribution and abundance.

17.5.2 The above objectives assist in identifying the intrinsic value of the Site and allow for an accurate and robust assessment of the Proposed Development to be made.

17.5.3 Important species are those protected by international or national legislation; those that have been identified in the UK Biodiversity Steering Group Volumes I to VI as priority species, and those identified as locally distinctive in a local BAP (e.g. 'local keystone', 'flagship' and 'umbrella species').

Designated Sites

Statutory

17.5.4 There are no statutory designated sites of nature conservation importance within or adjacent to the site (see Figure 17.1). The nearest statutory designated site is Sue Godfrey Nature Park Local Nature Reserve (LNR), which is located approximately 1.3km east of the Site. The Nunhead Cemetery LNR is 1.6km to the south and Mudchute Park Farm is 1.9km east of the Site. The closest Site of Special Scientific Interest (SSSI) is Gilberts Pit located approximately 6.2km from the Site. The closest area of ancient woodland is at Sydenham, located approximately 7km to the south of the Site.

Non-statutory

17.5.5 There are no non-statutory designated sites of nature conservation importance within the Site (see Figure 17.1). The nearest non-statutory designated sites are South Bermondsey Railway Embankments SINC, located just beyond the north/western boundary of the Site and Senegal Railway Banks SINC just beyond the north/eastern boundary. Both of these are sites of Borough Importance Grade 2. To the immediate south of the Site lies Bridgehouse Meadows proposed SINC, a site of Local Importance. The ecological value of these sites is set out below. A number of other SINCs exist within the requested 2.75km data search radius, though they are well removed from the Site.

South Bermondsey Railway Embankment SINC & Senegal Railway Banks SINC

17.5.6 These sites comprise linear mosaic of habitat principally scrub rough grassland & woodland habitats. With specific reference to the portions of these SINCs adjacent to the site, these comprise re-colonising woodland habitat with Sycamore & Ash with rough grassland and Bramble scrub habitat. In addition, stands of Japanese Knotweed present in both.

Bridgehouse Meadows (proposed) SINC

17.5.7 This proposed SINC immediately south of the Site is roughly triangular in shape and covers approximately 2.94 hectares. It comprises predominantly rough semi-improved neutral grassland, other habitats present include; amenity grassland, scattered trees; and scrub.

Ecological Features

17.5.8 The Site was subject to an initial walkover survey in 2009, with a full Phase 1 survey carried out in October 2010. The Site's immediate surroundings were also surveyed where possible.

17.5.9 The following habitat types or features were identified within the Site boundary:

- Amenity Grassland;
- Amenity Planting;
- Japanese Knotweed;
- Trees;
- Hardstanding and
- Buildings

17.5.10 The locations of these habitat types are shown on Figure 17.2.

17.5.11 An account of each habitat and an indication of the representative plant species present are given in Technical Appendix 17.6.

Wildlife use of the Site

17.5.12 General observations were made during the Phase 1 surveys of any faunal use of the Site, with attention paid to the potential presence of protected species.

17.5.13 Specific surveys were also undertaken with regard to badgers and bats. The results of the Phase 1 survey indicated that no further specific surveys were required with respect to any other faunal species or groups.

Badgers

17.5.14 No evidence for the presence of Badgers was noted during the course of the Phase 1 survey and given those habitats present within the Site and wider area, it is considered that this

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species would not utilise the Site for either shelter or foraging. The desk study revealed no records of Badger within the Site or within a 1.75km radius.

17.5.15 No further regard to this species is considered necessary.

Bats

17.5.16 The vast majority of the buildings present offer no obvious potential to roosting bats, however, specific internal and external surveys of the buildings were carried out in order to ensure that a robust assessment could be carried out. Following the initial scoping survey, the only building thought to offer potential to roosting bats (although limited) was building B4 (see Figure 17.2). However, during the specific internal survey, no evidence of use of this building by bats was recorded.

17.5.17 No significant bat foraging activity was noted during the activity surveys. Such activity was limited to very low numbers of foraging Common Pipistrelle bats (most likely one or possibly two individual bats) recorded along the railway line to the east of the Site.

17.5.18 Whilst the desk study did not reveal any records of bat species within the Site, it did reveal a number of records within the requested search area. The closest of these was a *Myotis* species recorded approximately 0.5km west of the Site. Further records for *Myotis* bat species exist within the search area in addition to: Common Pipistrelle, Soprano Pipistrelle and Noctule. The Site and its immediate surrounds are not considered to be important for roosting or foraging bats.

Breeding birds

17.5.19 The Site offers limited potential to support breeding birds. A number of the buildings surveyed may offer nest building potential for some species such as House Sparrow *Passer domesticus*, Pigeon *Columbia livia* and Starling *Sturnus vulgaris*. In addition, a Kestrel *Falco tinnunculus* nest was recorded on top of one of the speakers within the Millwall FC Stadium. The desk study revealed no records of Schedule 1 bird species on the Site itself; however, there were several records for Black Redstart *Phoenicurus ochruros* within the search radius, the closest of which was 1.4km to the south east. There was one record of Peregrine Falcon *Falco peregrinus* 0.4km south west of the Site and one record of Kingfisher *Alcedo atthis* 0.8km to the north. None of these species would be dependant on the Site.

Reptiles

17.5.20 The vast majority of the Site itself is considered to offer no potential to support reptile species.

The grassland (outside of the Site) and scrub associated with the railway embankments may support common reptiles such as Common Lizard *Lacerta vivipara*, Slow-worm *Anguis fragilis* and Grass Snake *natrix natrix*. The desk study results showed that there were no records of reptiles within the 1.75km search area.

Amphibians

17.5.21 Given the habitats present within the Site, the surrounding land use and the separation of the Site by infrastructure and built form from suitable habitat, it is considered unlikely that amphibians would be present within the Site. Records within the wider search area, were returned for Common Frog *Rana Temporaria*, Smooth Newt *Lissotriton vulgaris* and Natterjack Toad *Epidalea calamita*. The record for Natterjack Toad is historic, from 1908 and this species is highly unlikely to still be present at the location described.

17.5.22 No further regard to this group is considered necessary

Invertebrates

17.5.23 It is considered likely that the Site would be utilised by a ranged of common invertebrate species, but that the Site is unlikely to support any protected or notable species given the nature of the habitats present. No records for rare or notable invertebrate species were returned for the Site itself. Several records exist for notable invertebrate species recorded within the wider search area, the closest of which is for a Wall Brown *Lasiommata megera* (butterfly). Other species recorded are Stag beetle *Lucanus cervus*, Lattice Heath *Chiasmia clathrata* (moth), Cinnabar *Tyria jacobaeae* (moth) and *Ophonus (Metophonus) puncticollis* (beetle). It is considered that none of these species would be dependant upon the Site.

17.6 Identification and assessment of effects

17.6.1 This section identifies all likely significant effects, both during construction and post construction (either positive and negative).

The principles of site evaluation

17.6.2 The methods and standards for site evaluation within the British Isles have remained those defined in 'A Nature Conservation Review' by Ratcliffe (1977)¹⁴. These are broadly used across the United Kingdom to rank sites, so priorities for nature conservation can be attained.

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Current SSSI designation maintains a system of data analysis that is roughly tested against Ratcliffe's criteria.

- 17.6.3 In general terms, these criteria are size, diversity, naturalness, rarity and fragility, while additional secondary criteria of typicalness, potential value, intrinsic appeal, recorded history and the position within ecological / geographical units are also incorporated into the ranking procedure.
- 17.6.4 Any assessment should not judge sites in isolation from others, since several habitats may combine to make it worthy of importance to nature conservation.
- 17.6.5 Further, relying on the national criteria would undoubtedly distort the local variation in assessment and therefore additional factors need to be taken into account, e.g. a woodland type with comparatively poor species diversity, common in the south of England, may be of importance at its northern limits, say in the border county.
- 17.6.6 In addition, habitats of local importance are often highlighted within a local BAP, and the Lewisham BAP highlights a number of habitats of specific importance.
- 17.6.7 Levels of importance can be graded at the international, national, regional, county or local level and in terms of low, medium or high value.

Construction Effects

Designated Sites

Statutory Wildlife Sites

- 17.6.8 There are no statutory designated sites of nature conservation importance within or adjacent to the Site. The nearest statutory designated site is Sue Godfrey Nature Park LNR located approximately 1.3km east of the site. The Nunhead Cemetery LNR and Mudchute Park Farm LNR are the next nearest such sites. Ancient woodland is well removed from the Site.
- 17.6.9 Given the distance from the Proposed Development and the separation by existing residential development and infrastructure it is considered that there will be no likely significant environmental effects during the construction phase of the Proposed Development.

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17.6.10 Likely significant environmental effects are considered to be at the **national level** and of **no significance**. No mitigation is required.

Non-Statutory Wildlife Sites

17.6.11 There are no non-statutory designated sites of nature conservation importance within Site. South Bermondsey Railway Embankments SINC and Senegal Railway Banks SINC, are located adjacent to the Site. Bridgehouse Meadows SINC lies immediately south of the Site. Other such sites are well removed from the Site.

17.6.12 It is considered that likely significant environmental effects from the construction phase on South Bermondsey Railway Embankment, Senegal Railway Banks and Bridgehouse Meadows SINC are limited to the following pathways:

- Encroachment of machinery during the construction phase;
- Effects in relation to dust during the construction phase; and
- Pollution effects due to run-off during the construction phase;

17.6.13 It is considered that there would be no likely significant environmental effects in relation to increased lighting and noise on habitats within these sites during the construction phase. Consideration of likely significant environmental effects in relation to faunal species is given below under the relevant sections.

Encroachment of machinery.

There is the potential for the degradation of habitats during the construction phase of the Proposed Development, through the encroachment of machinery and storage of material.

Dust

17.6.14 There is the potential for the degradation of habitats through dust suppression of vegetation during the construction phase of the Proposed Development.

Pollution due to run-off

17.6.15 There is potential for habitat degradation due to run-off, where laden silts or chemicals are deposited.

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17.6.16 Prior to mitigation likely significant environmental effects are **adverse** at the **unitary level** and of **minor significance**.

Habitats

17.6.17 The Site is currently of negligible ecological value.

Amenity Grassland

17.6.18 Amenity grassland is currently present along Surrey Canal Road and at the western boundary of the Site. This grassland is species poor and is to be retained as part of the Proposed Development.

17.6.19 It is considered that likely significant environmental effects are limited to possible degradation during the construction phase through the encroachment of machinery, dust deposition and contamination through site run-off.

17.6.20 Prior to mitigation / enhancement measures, likely significant environmental effects are considered to be **adverse** at the **site level** and of **negligible significance**.

Amenity Planting

17.6.21 Amenity shrubs and (immature) trees are largely confined to locations along Surrey Canal Road, This habitat feature is considered to be of negligible intrinsic ecological value.

17.6.22 Likely significant environmental effects are limited to minor losses and possible degradation of retained features during the construction phase through the encroachment of machinery and contamination through site run-off.

17.6.23 Prior to mitigation / enhancement measures, likely significant environmental effects are considered to be **adverse** at the **site level** and of **negligible significance**.

Trees

17.6.24 The 'Arboricultural Statement' produced by CBA Trees in 2010, which is provided as Technical Appendix 7.3, and should be read in conjunction with this Chapter highlights 60 individual trees and 12 tree groups located within or adjacent to the Site. The locations of these individual trees and tree groups are shown on the Tree Survey Plan appended to the Arboricultural Statement at appendix CB1 and also on Figure 17.2 of this Chapter. Of these trees and tree groups a total of 36 individual trees and 7 tree groups would be lost as a result

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of the Proposed Development. A further 4 individual trees would be required to be lost as a result of sound arboricultural management, regardless of any planning permission. The remaining trees and tree groups are to be retained within the Proposed Development.

17.6.24 None of the trees or tree groups to be lost to the Proposed Development are considered to have high intrinsic ecological value, with the vast majority being immature or semi-mature specimens.

17.6.25 Likely significant environmental effects are considered to be **adverse** at the **site level** and of **minor significance**.

Buildings

17.6.26 There are several different buildings across the Site. The vast majority of these are to be lost to the Proposed Development, however, the Millwall FC Stadium, together with Guild House and Rollins House both in the south of the Site are to be retained.

17.6.27 The buildings are considered to be of no ecological value and any losses would be of no ecological significance.

17.6.28 Likely significant environmental effects are considered to be of **no significance**. No mitigation is required.

Hardstanding

17.6.29 Hardstanding in the form of car parks, yards and access ways, is present throughout the Site. This habitat is of no ecological value and any losses would be of no ecological significance.

17.6.30 Japanese knotweed is present at three locations within the Site, all in close proximity to the railway embankments from where it is considered the species has spread from. It will be necessary to use specific control measures to contain and remove / destroy this species.

17.6.31 Likely significant environmental effects are considered to be of **no significance**. Mitigation is only required in respect of controlling Japanese knotweed.

Species

Bats

Legislation.

17.6.32 All bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 and are also included in Schedule 2 of the Conservation (Natural Habitats &c.) Regulations 1994. These include provisions making it an offence to:

- Intentionally kill, injure or take (capture) bats;
- Intentionally or recklessly disturb bats in a roost or any other structure or place it uses for shelter or protection;
- Intentionally or recklessly damage, destroy or obstruct access to bat roosts even if bats are not in residence.

17.6.33 Recent amendments to the Regulations have raised the threshold above which a person will commit the offence of deliberately disturbing a bat and an offence will only be committed if there is deliberate disturbance in a way as to be likely to affect:

- The ability of any significant groups of bats to survive, breed, or rear or nurture their young; or
- The local distribution or abundance of that species.

17.6.34 Should development works affect a roost then Natural England should be consulted, and if necessary any works undertaken under a licence.

17.6.35 There are 16 breeding bat species in Britain. Many of them are considered threatened due to a variety of factors including habitat loss and disturbance/damage to roosts. Of these 16 species, a number regularly use buildings and trees as roost sites.

17.6.36 Barbastelle *Barbastella barbastellus*, Bechstein *Myotis bechsteinii*, Pipistrelle *Pipistrellus* spp, and Horseshoe bats *Rhinolophus* spp. are UKBAP Priority Species. Bat species (all) are also subject to an action plan within the Lewisham Local BAP.

Activity

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17.6.37 No trees or buildings were found to support roosting bats during the course of the specific bat surveys undertaken. The Site itself is of no importance to roosting, foraging or navigating bats.

17.6.38 The railway embankments (off site) offer potential navigational features and foraging grounds for bats, however such bat activity was found to be limited to small numbers of common bat species (*Pipistrelle* sp.) during the specific surveys undertaken.

17.6.39 The only potential significant environmental effect in relation to bats at the construction phase of the Proposed Development would be through increased lighting levels, where floodlighting is used. The impact of lighting on bats is particularly harmful if used near woodland edges, near hedgerows and along river corridors, with high pressure sodium or mercury lamps having the greatest effect. Bat species, such as Natterer's Bat, Whiskered Bat *Myotis mystacinus*, Daubenton's Bat and Brown Long-eared Bats are particularly sensitive to lighting, preferring to forage away from light sources in an attempt to avoid predators. None of these species were recorded during the specific surveys undertaken and the background records returned as part of the desk study exercise suggests that these species do not use either the Site itself, or the adjacent habitats for foraging or navigational purposes. Pipistrelle bats, which are known to use (in low numbers) habitat adjacent to the Site, are less sensitive to increased light levels and are known to forage around light sources where they feed on insect prey attracted to the light.

17.6.40 The railway embankments are to be maintained, wherever possible, as a dark corridor during the construction phase.

17.6.41 Given the low importance of the Site and its immediate surrounds for bat species, likely significant environmental effects are considered to be at the **national level** and of **no significance**. No mitigation would be required.

Breeding birds

Legislation

17.6.42 Section 1 of the Wildlife and Countryside Act is concerned with the protection of wild birds, whilst Schedule 1 lists species that are protected by special penalties.

Activity

17.6.43 The Site offers very limited potential to support breeding birds at present.

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17.6.44 Likely significant environmental effects are considered to be limited to disturbance effects during the removal of trees / vegetation and buildings and the small-scale permanent loss of potential nesting habitat.

17.6.45 Prior to mitigation measures, likely significant environmental effects are considered to be **adverse** at the **local level** and of **minor** significance.

Reptiles

Legislation

17.6.46 All six British reptile species receive a degree of legislative protection that varies depending on their conservation importance. Smooth Snake *Coronella austriaca* and Sand Lizard *Lacerta agilis* are highly localised in their distribution and receive full protection under the Wildlife and Countryside Act 1981 (as amended) and the Habitats and Species Regulations 2010. Due to their specialised habitat requirements, there is no likelihood these species would be present within the Site. Common Lizard, Slow Worm, Grass Snake *Natrix natrix* and Adder *Vipera berus* are much more common and widespread and are only partially protected under the Wildlife and Countryside Act 1981 (as amended) from:

- Intentional or reckless killing or injury; and
- Sale or other forms of trading.

17.6.47 The habitat of common reptiles receives no legal protection.

Activity

17.6.48 The Site itself comprises suboptimal habitat for this group and it is considered that they would not be present. The grassland and scrub associated with the railway embankments may support common reptiles.

17.6.49 Likely significant environmental effects are considered to be limited to potential habitat disturbance effects through machinery encroachment / storing of materials.

17.6.50 Likely significant environmental effects are considered to be **adverse** at the **national level** and of **minor** significance.

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Invertebrates

Activity

17.6.51 Given the paucity of the habitats present, it is expected that the Site would only support a limited invertebrate assemblage and that it is unlikely that any protected or notable species would be present.

17.6.52 Any temporarily displaced invertebrates are likely to re-colonise the Site on completion of the Proposed Development.

17.6.53 Likely environmental effects are considered to be of **no significance**. No mitigation is required.

Consideration of the 'Environmental Snapshot' during the construction phase

17.6.54 Phase I of the Proposed Development, in the south of the Site, is likely to provide the worst case scenario when considering potentially significant environmental effects. This is principally because construction traffic will need to access the Site from Surrey Canal Road, which is understood to be a busy peak hour route, and Rollins Street.

17.6.55 With specific regard to ecological considerations during Phase 1 (the identified worst case scenario) of the Proposed Development, no additional or distinct potential significant environmental effects have been identified from those set out above. This is due to the broadly similar habitat types across the Site and the relative proximity to SINC's within the immediate vicinity of the Site.

Operational Effects

Designated Sites

Statutory Wildlife Sites

17.6.56 Given the distance from the Proposed Development and the separation by existing residential development and infrastructure it is considered that there will be no likely significant environmental effects.

17.6.57 Likely significant environmental effects are of **no significance**. No mitigation is required.

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Non-Statutory Wildlife Sites

17.6.58 It is considered that potential environmental effects are limited to effects on faunal species which may utilise the Sites (bats, birds, common reptiles) and potential habitat degradation due to increased recreational pressure.

17.6.59 The railway embankments of South Bermondsey Railway Embankment and Senegal Railway Banks SINC will remain securely fenced, with no public access. As such, it is considered that there would be no likely significant environmental effects in relation to increased recreational pressure on these sites.

17.6.60 Bridgehouse Meadows SINC, is to be enhanced as public open space following construction work associated with the East London Line Phase 2. The habitats present (meadow grassland and scrub) are robust in nature and would be tolerant of an increase in visitor numbers to the site. Furthermore, bringing this site into favourable management through appropriate mowing and scrub management would increase its biodiversity value.

17.6.61 Likely significant environmental effects in relation to faunal species are considered in detail below under the relevant sections. Broadly, it is considered that, given the significant existing baseline noise levels (especially when matches are played at the Millwall FC Stadium) any increase in noise levels would have a negligible effect on species which may utilise the SINC. In respect of lighting, the railway line and its embankments will not be directly lit; maintaining them as a dark corridor. Thus there would be no significant increase in lighting levels at the SINC.

17.6.62 Likely significant environmental effects are considered to be **beneficial** at the **unitary level** and of **minor significance**.

Habitats

17.6.63 The Site is currently of negligible ecological value. New planting associated with the Proposed Development will result in new and enhanced habitats, of value to local wildlife being present. These will represent a net gain to local biodiversity and may contribute to the targets of the London and UK BAP.

Grassland

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17.6.64 Areas of grassland will be present in several locations within the Site as a result of the Proposed Development. These include the existing grassland along Surrey Canal Road which is to be retained, new grassland within Bolina Gardens in the north of the Site, new grassland at Timber Wharf in the south-west and other incidental areas of new grassland. The Memorial Garden will be either retained or relocated as part of the proposed Development. Green roofs will also be present throughout the Proposed Development. The green roofs would include an element of grass / herb habitat.

17.6.65 It is considered that this overall increase in grassland habitat would represent a net gain for local biodiversity.

17.6.66 Likely significant environmental effects are considered to be **beneficial** at the **site level** and of **minor / moderate significance**.

Amenity Planting

17.6.67 Areas of amenity shrub planting will be present in several locations within the Site as a result of the Proposed Development. Shrub planting will be present along much of the western and north-eastern boundaries of the Site as well as along Surrey Canal Road and in locations adjacent to the embankments associated with the proposed East London Line (Phase 2). The addition of green roofs offers scope for additional amenity planting.

17.6.68 Likely significant environmental effects are considered to be **beneficial** at the **site level** and of **minor / moderate significance**.

Trees

17.6.69 A significant amount of new trees planting will be undertaken as part of the Proposed Development and these will supplement those being retained within the Site. New trees will be present at road-sides and within open space areas including Bolina Gardens.

17.6.70 Likely significant environmental effects are considered to be **beneficial** at the **site level** and of **minor / moderate significance**.

Buildings

17.6.71 Buildings will be present throughout the Site as a result of the Proposed Development. The inclusion of a series of green and brown roofs represents a significant enhancement over the current situation.

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17.6.72 Likely significant environmental effects are considered to be **beneficial** at the **local level** and of **minor / moderate significance**.

Hardstanding

17.6.73 Hardstanding in the form of car parks, roads and pavements, will be present throughout the Proposed Development. This habitat will be of no significant ecological value.

17.6.74 Likely environmental effects are considered to be of **no significance**.

Species

Bats

17.6.75 The railway embankments (off site) will continue to offer potential navigational features and foraging grounds for bats.

17.6.76 New trees associated with the Proposed Development will offer enhanced foraging opportunities for bats within the local area.

17.6.77 There will be no significant increase in lighting levels associated with the railway embankments and as such this foraging and commuting corridor for bats will not be adversely affected.

17.6.78 Likely environmental effects are considered to be **beneficial** at the **national level** and of **minor significance**.

Breeding birds

17.6.79 The Proposed Development will give rise to additional nesting, roosting and feeding opportunities for birds. The new trees and shrub planting will offer increased nesting and foraging habitat and the inclusion of fruiting tree / shrub species would provide an increase in foraging opportunities for bird species, which is particularly important during the winter period.

17.6.80 Green or brown roofs will be present on the majority of buildings. Whilst some of these roofs will be subject to intermittent disturbance through (e.g. recreational) use by new residents, they will all offer enhanced foraging opportunities for birds through appropriate planting. Brown roofs have been specifically included within the Proposed Development in order to provide an enhancement for Black Redstarts which are known to utilise such features for

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nesting. A total of eighteen areas of green / brown roof are proposed which will not function as communal open space but instead will be focussed upon providing valuable benefits to wildlife including birds and especially Black Redstart.

17.6.81 Likely environmental effects are considered to be **beneficial** at the **local level** and of **minor / moderate significance**.

Reptiles

17.6.82 Reptiles are not likely to utilise the Proposed Development given the nature of the habitats which will be present.

17.6.83 Likely environmental effects are considered to be of **no significance**.

Invertebrates

17.6.84 It is expected that a range of common invertebrates would be present within the Site as a result of the Proposed Development.

17.6.85 The significant enhancement of the Site in terms of the quality and extent of habitats of value to wildlife would have a net benefit for invertebrate species, with new grassland and tree / shrub planting and the addition of green / brown roofs all of potential value to a range of invertebrate species.

17.6.86 Likely environmental effects are considered to be **beneficial** at the **local level** and of **minor significance**.

17.7 Opportunities for further mitigation measures

Non-statutory Wildlife Sites

17.7.1 Construction activities will be the subject of a Site Wide Code of Construction Practice (COCP) which will be prepared in consultation with London Borough of Lewisham. This will ensure compliance with all environmental and other relevant legislation and best practice standards. In addition plot specific COCPs would be produced, in the event that the Site is split into several development plots. The plot specific COCPs will apply the principles of the

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Site Wide COCP to each development plot. A range of commitments will be detailed, including measures which will mitigate adverse environmental effects on non-statutory designated sites, including any faunal species which may be present, through dust / air quality, toxic contamination and construction lighting effects. This is detailed further within Chapter 5 of the ES which relates to Demolition and Construction, with commitments also set out within Section 3 of the Development Specification.

- 17.7.2 In relation to dust air / quality issues, the COCPs will detail mitigation commitments including wheel washes, a demolition protocol and adherence to guidance as set out within the Greater London Authorities “Best Practice Guidance for the control of Dust and Emissions from Construction and Demolition”. Appropriate commitments are set out within the Development Specification and it is considered that all necessary mitigation could be detailed within COCPs such that additional specific planning conditions would not be required.
- 17.7.3 In relation to toxic contamination issues, the COCPs will detail all site management requirements to deal with environmental issues and specific mitigation commitments in relation to hazardous materials and waste management. Appropriate commitments are set out within the Development Specification and it is considered that all necessary mitigation could be detailed within COCPs such that additional specific planning conditions would not be required to secure any necessary mitigation.
- 17.7.4 In relation to construction lighting issues the COCPs will detail construction lighting commitments which will include specific provision to prevent lighting of the railway embankments. It is considered that all necessary mitigation could be detailed within the COCPs and that additional specific planning conditions would not be required to secure any necessary mitigation.
- 17.7.5 In the event that the existing fencing which separates the Site from South Bermondsey Railway Embankment and Senegal Railway Banks SINCs needs to be removed during the construction phase, then appropriate measures such as the erection of temporary fencing / barriers would be required in order to prevent encroachment by machinery. The requirement for fencing / barrier erection and how reinstatement works are to be carried out in the event that any damage occurs would be included within the COCPs and it is considered that no additional specific planning conditions would be required to secure any necessary mitigation.
- 17.7.6 It is considered that appropriate management of Bridgehouse Meadows SINC following construction of the East London Line Phase 2 would provide an enhancement over the current situation. Management prescriptions for this open space could be included within an

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overarching Ecological Management Plan for the Site which could be secured by way of an appropriate planning condition.

Habitats within the Site

- 17.7.7 Habitat features to be retained, such as trees and amenity grassland will be securely fenced where necessary, during the construction phase of the Proposed Development. Whilst not specifically referenced within the Development Specification, such measures will be detailed within the COCPs and it is considered that no additional specific planning conditions would be required to secure any necessary mitigation.
- 17.7.8 The adoption of appropriate construction practices such as the use of damping down techniques, wheel washes and appropriate storage of materials on site will mitigate the possibility of significant adverse environmental effects on habitats through dust deposition. Such measures will be detailed within the COCPs and it is considered that no additional specific planning conditions would be required to secure any necessary mitigation.
- 17.7.9 Mitigation in respect of potential toxic contamination of habitats during the construction phase will be based around the safe storage and use of chemicals, fuels and other (e.g. hazardous) materials. Such measures will be detailed within the COCPs and it is considered that no additional specific planning conditions would be required to secure any necessary mitigation.
- 17.7.10 A specific plan for the eradication / control of Japanese Knotweed, will be drawn up and implemented as part of the Proposed Development. Japanese Knotweed will be controlled in line with all current legislation and guidance, with the management / control implemented by appropriately licensed specialists. It is considered that the production of a Japanese Knotweed control Strategy could be the subject of an appropriate planning condition.
- 17.7.11 New trees and shrub planting would be present throughout the Proposed Development, with key areas including Bolina Gardens, Timber Wharf, roadside verges and boundary features. New tree / shrub planting within the Proposed Development would be based around native species and those of known value to a range of faunal species and appropriate management prescriptions for this planting could be included within an overarching Ecological Management Plan for the Site secured by way of an appropriate planning condition.
- 17.7.12 The new planting associated with the Proposed Development will link with habitat associated with the railway embankments, widening and enhancing the vegetated corridor for the benefit of wildlife in general.

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17.7.13 Existing amenity grassland present along Surrey Canal Road is to be retained. Existing grassland within the Memorial Garden is to be retained or re-located. Additional areas of grassland will be present within the Proposed Development including Bolina Gardens and Timber Wharf. This will provide a significant net gain in grassland habitat for the Site, which would be further enhanced through the adoption of a sympathetic management regime, notwithstanding any necessary commitments in relation to landscape / amenity value. Management prescriptions for grassland habitat could be included within an overarching Ecological Management Plan for the Site which could be secured by way of an appropriate planning condition.

17.7.14 Green / brown roofs will be present on the vast majority of buildings. These will provide a significant increase in the extent and quality of wildlife habitat within the Site. Eighteen areas of green / brown roof are proposed, as set out within the Development Specification and Parameter Plans which will be focussed upon providing valuable benefits to wildlife including invertebrates and birds, especially Black Redstart. The extent of these areas is shown on Parameter Plan number 012 titled "Landscape and Open Space Plan – Roofs". The remaining balance of the green roof areas will deliver additional open space provision for new residents, but will also include for planting of benefit to faunal species including birds and invertebrates.

17.7.15 A detailed Ecological Management Plan could be produced and agreed with London Borough of Lewisham as part of a planning condition attached to a consent. This would detail the necessary management prescriptions for all habitats within the Proposed Development and with special regard to enhancements for bats, birds (including Black Redstart) and invertebrates.

Faunal species

Bats

17.7.16 New planting of native species and those of known benefit to wildlife associated with the Proposed Development will offer enhanced foraging opportunities for bat species within the local area through a likely increase in flying insects within the Site. This planting will also enhance (in area and quality) the vegetated corridor associated with the adjacent railway embankments, providing an enhanced foraging and commuting corridor.

17.7.17 New roosting opportunities would be created within the Site through the erection of bat boxes, including a hibernation box, the detail of which would be set out within an appropriate Ecological Management Plan.

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17.7.18 The lighting scheme would be sensitively designed such that there would be no significant increase in lighting on the railway embankments which are currently used by bats as a foraging/ commuting resource.

Breeding Birds

17.7.19 Any clearance of vegetation would ideally be undertaken outside of the main bird breeding season (March – July inclusive). Where this is not possible, checks would be undertaken by a suitably trained ecologist.

17.7.20 In the event that nesting birds are discovered during any clearance works, including building demolition, then the nest should be subject to a 5m cordon and left alone until the young have fledged. It is considered that all necessary mitigation could be detailed within the COCPs and that additional specific planning conditions would not be required to secure any necessary mitigation.

17.7.21 A range of different nest boxes (suitable for species including House Sparrows, Swifts and Black Redstarts among others) will be erected throughout the Site, both on buildings and within open space area. Specific enhancements are proposed with regard to Black Redstarts. Areas of brown roof are to be created using appropriate aggregate (crushed brick / concrete) and open fronted nest boxes will be erected on these roofs. This will provide a net gain for this species within the Site and may help contribute to the aims of the Lewisham BAP for this species. New landscape planting areas will comprise fruiting tree / shrub species which will be of particular value to birds as a winter food source.

Reptiles

17.7.22 Given the nature of those habitats present within the Site, it is considered that reptiles would be unlikely to move into the Site during the construction phase of the development, should they be present within adjacent habitat associated with the railway embankments. However, due regard should be had to the potential for common reptile species to colonise piles of rubble or other stored material in close proximity to suitable off-site habitat. Where such materials are to be stored adjacent to suitable reptile habitat, the erection of reptile barrier fencing will be considered. The requirement for such reptile fencing will be set out in detail within the COCPs and additional specific planning conditions would not be required to secure any necessary mitigation.

Invertebrates

17.7.23 Whilst it is considered that no specific mitigation is required, the Proposed Development would provide a net gain for invertebrate species. New planting will incorporate a range of nectar rich and night flowering species to benefit any local moth and butterfly species. Moreover the creation of brown / green roofs and significant areas of grassland and tree / shrub planting will offer increased foraging and shelter opportunities for this group.

17.8 Summary of residual effects

Statutory Designated Sites

17.8.1 Likely significant environmental effects are of **no significance**

Non Statutory Designated Sites

17.8.2 Likely significant environmental effects are **beneficial** at the **Unitary level** and of **minor significance**.

Habitats

17.8.3 Likely significant environmental effects are considered to be **beneficial** at the **site level** and of **minor – moderate significance**.

Species

17.8.4 Likely significant environmental effects are considered to be **beneficial** at the **national - site level** and of **minor – moderate significance**.

17.9 Assessment of cumulative effects

17.9.1 Consideration has been given to the potential for cumulative effects to arise as a result of the Proposed Development. The full list of those other schemes which have formed part of this assessment, as agreed with London Borough of Lewisham are detailed in Chapter 2 of the ES. In addition consideration has been given to the proposed East London Line Extension (Phase 2) and Thameslink 2000. The potential for significant cumulative environmental effects in respect of the identified schemes is detailed below.

17.9.2 It is considered that given the paucity of habitats within the Site, its lack of value to protected species and the absence of potential for the Proposed Development to give rise to significant

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adverse environmental effects on other habitats / sites within the local area, all potential significant cumulative environmental effects during the construction phase of the Proposed Development are limited to those on non-statutory designated sites in the immediate vicinity of the Site. For clarity, these non-statutory sites are Bridgehouse Meadows, South Bermondsey Railway Embankment and Senegal Railway Banks SINC.

17.9.3 It is considered that potential significant cumulative environmental effects during the operational phase of the Proposed Development are principally in relation to non-statutory designated sites in the immediate vicinity of the Site. Potential effects would be through increased noise, lighting and recreational pressure.

17.9.4 Consideration has also been given to potential effects on faunal species which may utilise the Proposed Development.

East London Line Extension (Phase 2):

17.9.5 It is understood that these works are scheduled to commence in early 2011 and would be completed by autumn 2012. For the purpose of this cumulative assessment it has been assumed that the East London Line extension would be operational by the end of 2012. In the worst case, there could be a period of several months where construction works associated with the East London Line extension would overlap with the Proposed Development. This would give rise to potential significant cumulative environmental effects during the construction phase on non statutory designated sites and would be in relation to increased noise, lighting and dust during the construction phase. It is noted that Bridgehouse Meadows SINC is to be used as a construction site for the East London Line Extension works and so this development will have direct effects on this SINC through temporary habitat degradation, when the East London Line Extension is considered alone.

17.9.6 Any potential cumulative effects associated with the construction phase would be temporary and reversible. Appropriate mitigation has been put forward in respect of the Proposed Development so as to avoid significant adverse environmental effects on non-statutory designated sites during the construction phase of the Proposed Development. Such measures include commitments in respect of lighting, noise and dust levels which will be delivered through site wide and plot specific COCPs. There would be no cumulative effects in relation to (i.e. temporary) land take of any non-statutory designated sites, since the Proposed Development would not result in any such effects. It is considered that the mitigation measures put forward in respect of the Proposed Development would prevent any potential significant adverse cumulative environmental effects and it is expected that mitigation

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measures proposed as part of the proposals associated with East London Line extension would further mitigate any such effects.

17.9.7 In relation to the operational phase of the developments, it is considered that potential adverse cumulative environmental effects are limited to increased noise. Appropriate design of the lighting schemes associated with each development would ensure that the railway embankments (South Bermondsey Railway Embankment and Senegal Railway Banks SINCs) remain unlit. Given the nature of the proposals associated with the East London Line extension and the habitats which this SINC supports, there would be no cumulative effects in relation to an increase in recreational pressure.

17.9.8 With regard to increased noise levels, the operational phase of the East London Line extension will result in temporary increases in noise levels at the three non-statutory sites and within the Proposed Development, when trains pass. The Proposed Development will result in increased ambient noise levels both within the Site and at the three non-statutory sites, primarily associated with traffic and human activity with noise levels further increased on match days. It is considered that faunal species associated with the non-statutory sites would not be significantly adversely affected by an increase in ambient noise levels, since they would habituate to such increases. With regard to increases in peak noise levels, any effects would be temporary and reversible, since any species displaced would return once noise levels decrease back towards those consistent with ambient levels).

17.9.9 Bridgehouse Meadows SINC is to be enhanced in conjunction with the Proposed Development following works associated with the East London Line extension.

17.9.10 No significant adverse cumulative environmental effects have been identified.

Thameslink 2000

17.9.11 It is understood that the Thameslink works are scheduled to commence in early 2013 and would be completed by 2015. For the purpose of this cumulative assessment it has been assumed that Thameslink 2000 works would be operational by the end of 2015. There may therefore likely be an overlap with the Proposed Development.

17.9.12 As with the proposed East London Line extension potential significant cumulative environmental effects during the construction phase would be in respect of non statutory designated sites and would be in relation to increased noise, lighting and dust. All such effects would be temporary and reversible. No additional cumulative environmental effects have been

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identified for the construction phase and it is considered that no additional mitigation would be required.

17.9.13 In relation to the operational phase, as with the East London Line extension it is considered that potential adverse cumulative environmental effects are limited to increased noise. No additional cumulative environmental effects have been identified and it is considered that no additional mitigation would be required.

17.9.14 No significant adverse cumulative environmental effects have been identified.

Other developments within the local area

17.9.15 Those other developments of relevance to this cumulative effects assessment are set out at Chapter 2 of the ES. The other sites are well removed from the Proposed Development. The closest sites to the Proposed Development are Silwood Estate and Grinstead Road, located approximately 0.25km and 0.6km to the east of the Site respectively.

17.9.16 It is understood that the Silwood Estate development will be complete by the end of 2010. As such there would be no potential cumulative environmental effects at the construction phase. In relation to the development at Grinstead Road, given the distances involved and the separation of the sites by existing infrastructure, there would be no cumulative impacts during the construction phases of the developments even in the event that the schemes ran concurrently. In relation to the operational phases of all three schemes, it is considered that given the distances involved and the separation of the sites by existing infrastructure / development including the railway line, and taking into account the proposed mitigation measures in respect of the Proposed Development, there would be no potential cumulative effects on habitats / species within the Proposed Development. Furthermore, it is considered that given the fact that both the Silwood Estate and Grinstead Road sites are separated from Senegal Railway Embankments SINC (and the other SINC in the immediate vicinity) by the existing railway infrastructure (not designated), there would be no significant adverse cumulative environmental effects on non-statutory designated sites. No further potential significant adverse cumulative environmental effects have been identified.

Summary Conclusions in respect of potential cumulative effects

17.9.17 Having reviewed the proposals associated with other relevant developments, it is considered that there would be no potential significant adverse cumulative environmental effects on any sensitive receptors.

17.10 References

- ¹ Planning Policy Statement 9: Biodiversity and Geological Conservation, 2005, The Office of the Deputy Prime Minister (ODPM).
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- ⁷ <http://www.ukbap-reporting.org.uk/plans/ebs.asp>.
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- ¹³ Joint Nature Conservation Committee, 1993, Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit. Peterborough.
- ¹⁴ A Nature Conservation Review, 1977, Cambridge University Press.